

Strengthening Cooperatives and Youth Participation

PROCEEDINGS AND PAPERS



**INDIAN SOCIETY FOR
STUDIES IN COOPERATION**

VAMNICOM Campus, Savitribai Phule University Road,
Pune 411 007





Strengthening Cooperatives and Youth Participation

**(Proceedings and Papers of
36th Annual National Research Conference)**



Indian Society for Studies in Cooperation
VAMNICOM , Campus, University Road, Pune 411 007
www.isscpune.org
email : isscpune@yahoo.co.in

Strengthening Cooperatives and Youth Participation

(Proceedings and Papers of 36th Annual National Research Conference)

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Indian Society for Studies in Cooperation
C/o. VAMNICOM, University Road
Pune 411 007

**36TH ANNUAL NATIONAL
RESEARCH CONFERENCE**

PUNE

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Pune 411 007

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Preface

Preface

Indian Society for Studies in Cooperation (ISSC) completed its 36th Annual National Research Conference in collaboration with Padmashree Dr. Vitthalrao Vikhe Patil Chair for Cooperation Department of Commerce, SPPU, Pune and Vaikunth Mehta National Institute of Cooperative Management, Pune at Dnyaneshwar Hall, Main Building, SPPU, Pune on 10th and 11th December 2021. The theme of the Annual National Research Conference was **“Strengthening Cooperatives and Youth Participation”**. I am happy to record my appreciation and gratefulness to all delegates and young researchers, who traveled first time after the pandemic and participated in the Conference. This conference is one of the most successful conferences of ISSC due to the presence and presentations of a large number of researchers.

The importance of the theme of the conference is well received. Its Government of India, under the leadership of Shri Narendrabhai Modi ji, Hon’ble Prime Minister, gave a boost to cooperatives by establishing a separate ministry for cooperation. All researchers, coming across the pan India presented papers to strengthen cooperatives. The papers presented at the conference and published herewith are very useful as a road map for the future. I congratulate all the researchers for their studious work.

The Inaugural function of the conference began with the lightning of lamp by Shri Dileepbhai Sanghani, President NCUI & IFFCO, New Delhi. Dr. S. K. Goel, IAS (Ret.); Dr. Nitin Karmalkar, Vice-Chancellor, SPPU, Pune; Prof. Vidyadhar Anaskar, Chairman M.S. Cooperative Council, Pune (State

Minister Status); Dr. Hema Yadav, Director, VAMNICOM, Shri G.H. Amin, Chairman, ISSC, Prof. M.M. Tapkir, Chair, Professor, Dr. Vitthalrao Vikhe Patil Chair and Prof Anil Karanjkar, Hon. Secretary, ISSC was present on the dais at the occasion.

We also thank Shri Anil Kawade, IAS, RCS & Commissioner for Cooperation, M.S for delivering a Valedictory Address and Special Address by Dr. N.S. Umarani, Pro-Vice Chancellor, SPPU. We congratulate the paper presenters and delegates for participating in the Technical Session and the Chairman of various Technical Sessions for moderating.

I am thankful to Dr. M.M. Tapkir, Chair Professor, Padmashree Dr. Vitthalrao Vikhe Patil Chair for Cooperation Department of Commerce, SPPU, and their team and Dr. Hema Yadav, Director, VAMNICOM, for their hospitality and support to make this conference successful. I am sure that without the untiring efforts of Dr. Anil Karanjkar and his team, this conference would not have been a grand success.

I acknowledge the financial assistance provided by all the sponsors – especially NABARD, Pune, NCUI, New Delhi, Maharashtra State Cooperative Bank Ltd., Mumbai, Pune Peoples Co-operative Bank Ltd., Pune, IFFCO, Gujarat State Coop. Union, The Aslali Sewa Sahkari Mandli Limited, Aslali, Ahmedabad (Gujarat), Gujarat State Coop Credit Societies Federation Ltd., Ahmedabad Karnataka State Souhadra Federal Co-operative Ltd, and Cosmos Cooperative Bank, Pune

I would also like to thank the office Bearers of ISSC for taking a keen interest to make the Conference a success and members of the Editorial Board for bringing out this publication.

Ghanshyambhai Amin
Chairman, ISSC, Pune



Indian Society for Studies in Cooperation
36th Annual National Research Conference, Pune
(10th -11th December 2021)

PROGRAM

Day-I

10th December 2021

09.15-10.15

Registration

10.30-11.45

Inaugural Function

At the hands of

Shri Dileepbhai Sanghani

President NCUI & IFFCO, New Delhi

Key Note Speaker

Dr. S.K.Goel, IAS, (Rtd.)

In Presence of:

Prof. Vidyadhar Anaskar

Chairman M.S. Cooperative Council, Pune

(State Minister status)

Shri Nitin Karmalkar

Vice-Chancellor, SPPU, Pune

Dr. Hema Yadav

Director, VAMNICOM

Presided by

Shri Ghanshyambhai H. Amin

Chairman, ISSC, and Gujarat State Coop. Union Ahmadabad

Vote of Thanks

Shri Sanjeev Khadke

Governing Council Member

12.00-01.30 PM

Technical Session on IT for Strengthening Cooperatives

02.15-05.00 PM

Plenary Session I &II

(Research paper presentation and discussion)

(Parallel Sessions)

Plenary Session III &IV

(Research paper presentation and discussion)

05.00PM

Annual General Meeting of ISSC

Day-II **11th December 2021**

09.30-.11.00	Plenary Session V &VI (Research paper presentation and discussion) (Parallel Sessions)
11.15-12.30	Plenary Session VII &VIII (Research paper presentation and discussion)
12.30-12.35	Welcome address Shri Sanjeev Khadke
12.35-12.40	Flower Welcome
12.40-12.45	Paper Presentation Report Dr. Manjusha Kadam
12.45-12.55	Speech By Dr.M.M.Tapkir
12.55-01.05	Guest of Honor Dr. Hema Yadav Director, VAMNICOM In Presence of: Shri Ghanshyambhai H. Amin Chairman, ISSC, and Gujarat State Coop. Union Ahmadabad
01.05-01.10	Participants Remark
01.10-01.20	Valedictory address by Shri Anil Kawade, IAS RCS & Commissioner for Cooperation, M.S.
01.20-01.30	Presided by Dr. N.S. Umarani Pro-Vice Chancellor, SPPU, Pune
01.30-1.35	Vote of Thanks Shri Anil Karanjkar Hon. Secretary, ISSC

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Pune 411 007

Proceedings of 36th

Annual National Research Conference, Pune

(December 10th -11th, 2021)

Indian Society for Studies in Cooperation (ISSC) completed its 36th Annual National Research Conference in collaboration with Padmashree Dr. Vitthalrao Vikhe Patil Chair for Cooperation Department of Commerce, SPPU, Pune and Vaikunth Mehta National Institute of Cooperative Management, Pune at Dnyaneshwar Hall, Main Building, SPPU, Pune on 10th and 11th December 2021. The theme of ANRC was “**Strengthening Cooperatives and Youth Participation**”. The society received 44 papers for the Conference. The details and overall impact of the entire event are described below:

DAY - 1

(10th December 2021 at 10.00 AM)

(Dnyaneshwar Hall, Main Building, SPPU, Pune)

Inaugural Function:

The Inaugural function began with the lighting of lamp by Shri Dileepbhai Sanghani, President NCUI & IFFCO, New Delhi. Dr. S. K. Goel, IAS (Ret.), Dr. Nitin Karmalkar, Vice-Chancellor, SPPU, Pune, Prof. Vidyadhar Anaskar, Chairman M.S. Cooperative Council, Pune (State Minister Status), Dr. Hema Yadav, Director, VAMNICOM, Shri G.H.Amin, Chairman, ISSC, Prof. M.M. Tapkir, Chair, Professor, Dr. Vitthalrao Vikhe Patil Chair and Prof Anil Karanjkar, Hon. Secretary, ISSC were present on dais at the occasion. The Inaugural function was attended by participants comprising of Cooperators, Members of the Society, Academicians, officials, Students of various universities, VAMNICOM, Pune & Institute of Cooperative Management, Pune.

During the inaugural ceremony, Shri Anil Karanjkar, Secretary, ISSC welcomed the dignitaries, guests, and delegates and briefed the gathering about the objectives, functions, and progress of ISSC's activities. He also briefed about the relevance of the theme "**Strengthening Cooperatives and Youth Participation**" in today's scenario.

Shri Dileepbhai Sanghani, President NCUI & IFFCO, New Delhi. In his address he expressed that the Indian Cooperative Movement is the largest in the world. The cooperative movement can be criticized, but there are two facts that are particularly relevant today. Cooperatives are resilient organizations and cooperatives grow in difficult times. Despite various difficulties, cooperatives are demonstrating their ability to reorganize themselves and to grow.

With the backdrop of structural change in the Cooperatives, the new avatar of Credit Cooperatives, youth involvement in cooperatives and the business opportunities for cooperatives the Research Conference is planned.

Dr. S.K. Goel, IAS,(Rtd.) delivered a keynote address. Dr. Goel delivered his address on the theme "Agriculture Value Chain and Youth Participation." Shri SK Goel said that prices cannot be controlled unless the value chain is improved, for which private sector participation is essential.

We have a fragmented value chain. Unless that is fixed, prices will not go down despite bumper crops. There is a need for private participation to develop agriculture and agri-business," he said.

He emphasized on the fact that while consolidation of highly fragmented land holdings is though not possible corporate could help aggregate farmers groups as "Producer Companies". This will reduce personal risks and facilitate the extension of credit, access to infrastructure and aggregation of the produce of small landholders.

Dr. Goel also emphasized legal provisions in the APMC Act to promote Contract farming. He urged the private sector to develop agriculture infrastructure-private terminal markets, accredited godowns, cold storages and connect consumers with farmers through the use of information technology and help promote e-trading. While speaking on incentives and subsidies, he said that Government offers 25% subsidy on the creation and dissemination of market information. 25% on establishment of cold storage, 25% subsidy for the development of private markets, viability

gap funding for the establishment of warehouses. He assured support to the private sector for any project that entails the development of farmer capacities, the formation of farmer groups and creating an enabling environment for backward integration. He said that Govt. provides viability gap funding to an extent of 40% and tax concession for a period of 20 years to corporate for establishing alternative market channels (based on Hub and Spook distribution mechanism). He invited bankers to participate in Pledge Loan Schemes.

Prof. Vidyadhar Anaskar, Chairman M.S. Cooperative Council, Pune (State Minister Status) he expressed his gratitude to ISSC for holding Research Conference. He said that the co-operative sector has made a great contribution to the development of the country. But the right steps to strengthen the foundation of co-operation have not been taken in the last several years.

Dr. Nitin Karmalkar, Vice-Chancellor, SPPU, Pune, said that the university is trying to increase the contribution of youth in the field of cooperation.

For this in the next few years, many activities related to co-operation and co-operative courses will be taught in the universities.

Dr. Hema Yadav, Director, VAMNICOM, said that through cooperation, society can come together and develop faster development. Youth are involved in the cooperative movement

Shri G.H. Amin, Chairman, ISSC and Vice-President NCUI, New Delhi presided over the inaugural function and delivered the presidential address. He expressed his deep gratitude to Dr. Vitthalrao Vikhe Patil Chair, SPPU for holding ISSC's Thirty Sixth Annual National Research Conference. During his address, he highlighted the importance of youth participation in all sectors. We have a lot of issues and challenges for youths.

Currently, youth are in distress and confused about their career and future prospects. Youth are involved in the cooperative movement, either as member-owners, as employees, or as recipients of cooperative education. When one speaks about youth entrepreneurship, three words are most important such as youth in cooperatives, empowerment, and freedom of choice. By combining all, the virtual cycle of engagement is created. The need for adoption of technology is also much important with youth

engagement and they are interested in technology.

Therefore, this is the right time to discuss our collective efforts for Strengthening Cooperatives and Youth Participation. In this light, this National level conference is an attempt in this direction. He expressed good wishes for the two days Conference.

Shri Sanjeev Khadke proposed the vote of thanks at the end of the inaugural session.

Technical Session - I (10th December 2021)

The Technical session was conducted in the Dnyaneshwar Hall, after lunch Break. The session was presided over by Session Chairman. Researchers were given 25 minutes to present their paper and 15 minutes for discussion. This technical session was chaired by Mr. Ajay Nikumbh with the help of Dr. Manjusha S. Kadam

The following papers were presented during the technical session I.

1. Challenges in HR vis-a-vis IT in Cooperatives business model by Abhishek Pathak, Manager HR Infinity labs Ltd.,
2. Cyber Security for Co-operative Sector by Ajay Nikumb, SPPU, Pune
3. Co-operative: A Life Line of Farmer (With Special Reference to Amravati) by Dr. Ankita Ojha, Department of Commerce, Sant Gadge Baba Amravati University, Amravati.
4. Youth Participation in Cooperatives by Adv. S.B. Patil, Additional Commissioner and Joint Secretary Cooperation (Retd.). Pune
5. An Empirical Study on Members of Primary Dairy Cooperatives by Afsana Begam Badshah Mokashi, Student M. Com. Part I, Government College of Arts, Science and Commerce, Goa
6. Youth Participation in Kerala Cooperatives-An Exploratory Study by Dr. G. Veerakumaran, Professor and Head, Department of Cooperative Management, College of Cooperation, Banking and Management, Kerala Agricultural University, KAU Post, Thrissur
7. Managerial Practices and Marketing Strategies Embraced by the Co-operative Banks in Goa by Namita Haldankar, Student M.Com.

- Part I, Government College of Arts, Science and Commerce, Goa
8. Role of Fisheries Cooperatives in Improving Livelihood of fisher folks: A case of Mandovi Fisheries Cooperative Society by Namrata Jadhav, Student M.Com. Part I, Government College of Arts, Science and Commerce, Goa
 9. A Comparative Study of Customers Satisfaction and Experience with Reference to selected Cooperative Banks in Goa by Rafikahamad M. Badger Student M.Com. Part I, Government College of Arts, Science and Commerce, Goa
 10. A Study on Goa Bagayatdar with reference to Farmers' drive to become Members, their Beliefs and Satisfaction by Riya Bharne, Student M.Com. Part I, Government College of Arts, Science and Commerce, Goa
 11. Goa Dairy: Business Model and Supply chain in the State of Goa by Yashodhan Deykar, Student M.Com. Part I, Government College of Arts, Science and Commerce, Goa
 12. Impact of Brand Equity on Cooperative Sector in 21st Century by Dhananjay Munde, Assistant Professor, Skill Development Centre, Savitribai Phule Pune University, Pune

DAY - 2

Technical Session - I

(11th December 2021)

The Paper Presentation commenced on 11th December 2021 at 09.15 AM in the parallel sessions. The Online session was presided over by Session Chairman Shri Ajay Nikumbh and Mr. Sanjeev Khadke, and the offline session was presided over by Dr. Veerakumaran. The following papers were presented during the session.

Online Paper Presentations

1. Structural reforms in Short Term Cooperative Credit in India-Prosperity by Dr. K. Dhevan, Assistant Professor, Department of Cooperation, The Gandhigram Rural Institute- Deemed to be University, Gandhigram, Dindigul District, Tamil Nadu
2. Good Governance in Indian Cooperatives with modern management concepts by Dr. Sanjeeb Patjoshi IPS PhD ADG, Joint Secretary to Government of India, Ministry of Panchayati Raj, New Delhi, Former Director VAMNICOM & CICTAB

3. Strategy for strengthening co-operative Movement in India by Sunil Kumar Mandal, Research Scholar, Rural Economics & Co-operation Management Department TMBU, Bhagalpur
4. CBS Implementation: Case study of PDCC, Pune by Ms. Ashwini R. Chavan Research Scholar, RIRD, Shivaji University, Kolhapur, Asst. Professor at Sinhgad Institute of Management and Computer Application, Narhe, Pune 411022
5. Analyzing the performance of public, private and cooperative banks operating in India using camel approach: an application of PLS-SEM by Satish Rane, PhD. Research Scholar, Government College of Arts, Science and Commerce, Khandola, Marcela-Goa
6. Participation of Young Women and Strengthening of the Manapad Women Workers Palm Leaf Industrial Cooperative Society in Tamil Nadu by Dr. S.V. Akilandeewari, Guest Faculty, Department of Rural Industries and Management, The Gandhigram Rural Institute (Deemed to be University), Tamil Nadu
7. Cooperative Development and Young Farmers' Participation of the Dairy Cooperative Society in Pondicherry by V. Dhanalakshmi, Research Scholar, The Gandhigram Rural Institute (Deemed to be University), Tamil Nadu
8. Adaptability of E-governance services in the State of Goa by Ms. Shilpa Korde Research Scholar and Assistant Professor in Commerce Rosary College of Commerce and Arts, Navelim, Salcete- Goa.
9. IT Risk Management: A Case Study of DCC Bank Ltd., Satara by Dr. Kishori Pawar, Assistant Professor, MKSSS's College of Computer Application for Women, Satara, Maharashtra
10. Strategies for Strengthening Cooperative Credit Societies: A Study on Primary Agricultural Credit Cooperatives in the Union Territory of Puducherry by B.Kanimozhi, Research Scholar, Department of Cooperation, The Gandhigram Rural Institute (Deemed to be University), Tamil Nadu
11. Smart Notifier For Sugar Factories Using Trending Technology by Vishvajit N. Yadav, Research Scholar, Bharati Vidyapeeth's IMIT, Navi Mumbai
12. Deep Learning Applications: Current and Future Status by G. Ramachandran, Assistant Professor, Department of Electronics and Communication Engineering, Vinayaka Mission's Kirupananda Variyar Engineering College, Vinayaka Mission's Research Foundation, (Deemed to be University), Salem, Tamil Nadu

offline Paper Presentations

1. A Study on Goa Bagayatdar with reference to Farmer's drive to become Members, their Beliefs and Satisfaction by Riya Bharne, Student M.Com. Part I, Government College of Arts, Science and Commerce, Goa
2. Goa Dairy: Business Model and Supply chain in the State of Goa by Yashodhan Deykar, Student M.Com. Part I, Government College of Arts, Science and Commerce, Goa
3. Awareness, Perception and Participation of Youth in Cooperatives by Sarvesha Dhaimodkar, Associate Professor, Government College of Arts, Science and Commerce, Goa
4. Effect of Cooperatives on the saving and investment behavior of members of credit societies by Poonam Sutar, Student M.Com. Part I, Government College of Arts, Science and Commerce, Goa
5. Credit Cooperatives: Farm and Non-farm activities in Dindigul Central Cooperative Bank by B. Punniyan, Research Scholar, Dept of Cooperation, The Gandhigram Rural Institute (Deemed to be University), Tamil Nadu
6. Role of Farmer Producer Organizations (FPOs) in Doubling the Farmers Income through Collective Action by M. Ragubalan, Research Scholar, Dept of Cooperation, The Gandhigram Rural Institute (Deemed to be University), Tamil Nadu
7. Women Empowerment through Cooperatives- Case of Self-help group in Goa by Sanika Samant, Student M.Com. Part II, Government College of Arts, Science and Commerce, Goa
8. Role of Tourism Cooperatives in Rural Areas of Goa-An Explorative Study by Sarvada Khutker, Student M.Com. Part II, Government College of Arts, Science and Commerce, Goa
9. A study on problems faced by the members of milk dairy cooperative society in Bicholim Taluka Goa by Niveda Korgaonkar, Assistant Professor, Government College of Arts, Science and Commerce, Goa
10. Exploring Membership and saving mobilization strategies of credit cooperative societies by Pradnya Chari, Assistant Professor, Government College of Arts, Science and Commerce, Goa
11. The Financial Vigor of Cooperative Banks in Goa by Relita Fernandes, Research Scholar, Government College of Arts, Science and Commerce, Goa
12. A study on Members of selected Fisheries cooperative in Goa by Vijaydurga Bhandodkar, Student M.Com. Government College of

- Arts, Science and Commerce, Goa
13. A study on Primary Dairy Cooperative Societies in Ponda Taluka Goa by Nail Videsha, Assistant Professor, Government College of Arts, Science and Commerce, Goa
 14. Role of Co-operatives in Community Development in Veling, Priol & Kunkalim Village of Ponda Taluka Goa by Gaunkar Sadanand, Research Scholar Government College of Arts, Science and Commerce, Goa
 15. Performance Analysis and predication of Sickness of the women co-operative bank ltd. in Goa by Gadhi Pratiksha, Assistant Professor, Government College of Arts, Science and Commerce, Goa

OPEN FORUM

“Participation of Youth in Cooperatives” Research Project presentation by Dr. Devendra Bhawe, followed by participants’ comments.

Valedictory Function:

The Valedictory Session started at 1.30 PM on 11th December 2021 which Valedictory address was given by Shri Anil Kawade, IAS, RCS & Commissioner for Cooperation, M.S. in presence of Dr. N.S. Umarani, Pro-Vice-Chancellor, SPPU; Dr. Hema Yadav, Director, VAMNICOM. and Shri G.H. Amin, Chairman ISSC.

Shri Anil Kawade, IAS, RCS & Commissioner for Cooperation, M.S elaborated that the State of Maharashtra is developed due to milk production, sugar production, banking, and related cooperative organizations. But he emphasized that cooperation should be more encouraged in other sectors also. The cooperative sector has good opportunities for employment and career like other systems this confidence we should give to the youth. So that more and more youth will participate in the cooperative sector. This will help not only the cooperative sector but our State will also benefit from cooperative participation. Further, Shri Kawade said that in changing economic scenarios there are challenges from the private sector to cooperatives. Cooperatives need to bring in qualitative changes into their work so as to compete with other sectors.

Dr. N.S. Umarani, Pro-Vice-Chancellor, SPPU, informed that SPPU is identifying various programs and systems to attract youth into cooperatives. SPPU is forming Mo Us with other institutions and universities in the State

as well as outside the States.

A vote of thanks was extended by Dr. Anil Karanjkar. He thanked Dr. Hema Yadav, Director VAMNICOM, Shri G H Amin, Chairman ISSC, Prof. M.M. Tapkir, Chair, Professor, Dr. Vitthalrao Vikhe Patil Chair, Members of the Governing Council, and the entire team of ISSC, SPPU, and VAMNICOM for conducting the 36th Annual National Research Conference. He expressed heartfelt gratitude to all the dignitaries for sparing valuable time to address the delegates.

On behalf of ISSC, he expressed gratitude to all the sponsors – especially NABARD, Pune, NCUI, New Delhi, Maharashtra State Cooperative Bank Ltd., Mumbai, Pune Peoples Co-operative Bank Ltd., Pune, IFFCO, Gujarat State Coop. Union, The Aslali Sewa Sahkari Mandli Limited, Aslali, Ahmedabad (Gujarat), Gujarat State Coop Credit Societies Federation Ltd., Ahmedabad Karnataka State Souhadra Federal Co-operative Ltd, and Cosmos Cooperative Bank, Pune

He also expressed gratitude to the Director, VAMNICOM, and Dr. M.M. Tapkir, Chair Professor, Padmashree Dr. Vitthalrao Vikhe Patil Chair for Cooperation Department of Commerce, SPPU, and their team. He especially thanked all the volunteer students who made it possible to manage the entire event. He said that the event would not have succeeded if delegates from all over India would have not come enthusiastically.

PART 2



01

Women Empowerment through Cooperatives – Case of Self Help Groups in Goa

Sanika Samant*

Abstract :

To Date, Entrepreneurship Research Has Rarely Focused On Cooperatives. So The Present Study Is Conducted To Determine How Self Help Groups Cooperative Societies Contribute To Overcoming Gender Inequality And Empowering Women. In Recent Times, Some Women Have Contributed To A Great Extent Towards The Development of the Economy, But Many Are Yet To Realise Their Potential. In The Light of This Observation, The Study Focuses On Understanding The Role Cooperatives Can Play In Empowering Women To Take Up Entrepreneurial Activities In Goa.

The study's first objective is to find out the motives and goals of the women behind joining Self Help Groups through which the researcher will get insights about various factors influencing women to join Self Help Groups. Secondly, the study will attempt to understand the Impact of Self Help Groups on women's empowerment in the state of Goa. This objective will highlight the benefits provided by cooperatives to empower women. The study is based on primary data collected by distributing a structured questionnaire among 130 female members of Self Help Groups in Goa. For the analysis, of data, descriptive statistical tools, factor analysis, paired sample t-test was adopted and analysed with the help of SPSS software. The study discloses that most respondents have joined SHG to improve saving habits and start some income-generating activity. Therefore, the research will enable the policymakers to draft policies that promote women's empowerment and provide valuable insights for potential women entrepreneurs by highlighting the benefits of cooperation and teamwork.

Keywords: -

Cooperatives, Gender Equality, Self Help Groups, Women Empowerment

* Student M.Com Part II, PG Department of Commerce, Government College of Arts, Science and Commerce, Khandola- Marcela, Goa

1. Introduction :

Human beings are always required to cooperate to survive in Society. They stay even though there are various combats and clashes in the bond with each other (Nadeau, 2016). Where people are losing their freedom, cooperatives provide a solid platform that is feasible and dynamic to conduct an economic transaction. To meet the standard requirements of people in Society, cooperatives come into the picture. Cooperative societies are based on the powerful idea that, together they can achieve their objectives that are otherwise impossible to achieve individually (Dogarawa, 2006). A cooperative society can be an organisation wherein a group of individuals with a common interest mutually agrees to promote their economic activities such as production, marketing, and delivering goods and services to benefit the members(Olaore, 2019).

The primary motive of a cooperative society is self-help and mutual help. A cooperative society is excused from income-tax and surcharge on its earnings up to a specific limit. Besides, it is also exempted from stamp duty and registration fees (Deshpande, 2017). Since the goods are directly bought from producers at lower prices and offered to the members at reasonable prices, their selling prices are lower than the operating prices in the open market. Members of cooperatives have equal voting rights equal opportunity to partake in the management and control of the societies and make inputs to policies. Producers can directly meet consumers and sell their products. There is no presence of a middle man agent. It guarantees the producers and sellers will purchase the products and market them, encouraging members to increase their production at a larger scale without hesitation (Popker2016).

1.1. Evolution of Cooperatives in Goa :

Goa is a place consisting of an ample variety of gifted folks, wherein we discover an ideal combination of culture and traditions being followed. The Cooperative movement was launched in the Union Territory of Goa, Daman and Diu in 1962 to uplift the weaker sections of the Society. Soon it diversified its operation in various sectors such as agriculture, credit, consumers, housing, dairy farming, and other types of cooperative societies. To manage all the cooperative societies in the state Government, the Department of Cooperation was established in 1962. The Department of Cooperation, i.e. the office of Registrar of Cooperative Societies, is the registering and controlling authority of all the Cooperative Societies.

Initially, the state had adopted the Maharashtra State Cooperative Societies Act, 1960 and the Rules, 1962 made thereunder for the registration and control of Cooperative Societies. Subsequently, the state enacted its law, Goa Cooperative Societies Act, 2001, and Rules 2003. At present, all the Cooperative Societies registered in the State of Goa are governed under the Goa Cooperative Societies Act, and the Cooperative Societies Rules 2003 made thereunder (Compiled from the reports taken from the Registrar of Cooperative Societies, Goa).

Table 1: Growth of Co-operative Societies

Years	No. of the Co-op. Societies	Membership
2009 – 10	2611	9,13,268
2010 – 11	2697	9,21,903
2011 – 12	3091	9,69,305
2012 – 13	3727	11,34,434
2013 – 14	4046	10,80,711
2014 – 15	4247	11,20,064
2015 – 16	4430	11,74,613
2016 – 17	4632	12,12,743
2017 – 18	4805	11,42,936
2018 – 19	4952	11,77,753

Source: The Statistical Handbook, Directorate of Planning Statistical And Evaluation, Government of Goa.

Table 1 clearly shows growth in the number of cooperative societies and their membership over ten years from 2009 to 2019. The number of cooperative societies was doubled, i.e., in the year 2009 -10 was 2611 whereas in 2018 – 19 it increased to 11,77,753. Overall, there have been growing trends in membership growth that have witnessed variability and stagnation.

1.2. Women Entrepreneurship :

Economic development cannot be achieved without the active participation of women in all aspects of life. There is consensus among scholars that women can play a vital role in the entrepreneurial phenomenon. However, the share of women's contribution to economic and social development depends on promoting gender equality and gender blind support from the institutions (Sarfaraz, 2014). The number of female entrepreneurs worldwide has been gradually growing in recent years; researchers and

policymakers have been paying more attention to female entrepreneurship (Nedelcheva, 2012). Women entrepreneurship has been an essential unexploited source of economic growth in the last decade (Georgeta, 2012).

1.3. Women Empowerment :

The word ‘empowerment’ means to give power. Power means having strength from within and strengthening by absorbing outside elements (Widiyanti, 2018). Women empowerment is the development of mental and physical capacity, the power and skill of women to do something with meaning within their social environment; thus, they gain social acknowledgement and improve their economic status. Economic empowerment for women aims to strengthen women's social economy status by creating an economic culture that contains knowledge regarding women's role, empowering them with various economic efforts, and improving women's emancipation from poverty (Akomolafe, 2006). For women empowerment, the Self Help Groups (SHGs) model was introduced as a blueprint for the empowerment of women in the Government of India’s Ninth Five Year Plan (1997–2002) and is the largest and fastest-growing microfinance program in the developing world (Planning Commission 2002).

1.4. Self Help Groups :

In the year 1990 – 2000, after the failure of banks in delivering credits to the people of rural areas, the Government came up with the concept of NABARD, which initiated an idea called Self Help Groups (SHGs) Bank Linkage Program (SBLP). This identified a significant number of informal groups mainly consisting of women. The aim was to link such formal or informal groups existing with the banks providing them groups’ bank accounts. Self Help Group is a group with an average size of about 15 to 20 people from a homogenous class. They come together for addressing their everyday problems. They are encouraged to make voluntary thrift regularly. They use this pooled resource to make small interest-bearing loans to their members. Self Help Groups play an essential role in rural areas in reducing poverty (Tirkey, 2013). The primary objective of SHG is that it acts as the platform for members to provide space and support to each other (Kondal, 2014). At the end of the Ninth Five Year Plan, the Government of India implemented various schemes to reduce poverty and promote gainful employment. But the most effective method with less stress on financial expenditure was the concept of “Self Help Groups”. It is a powerful tool introduced to remove poverty and improve rural development (Sabyasachi Das, 2003).

Table 2:- Growth of Self Help Groups

Years	No. of Self Help Group Co-op Societies	Members
2011 – 12	242	5,260
2012 – 13	487	6,410
2013 – 14	557	6,832
2014 – 15	604	7,070
2015 – 16	630	7,324
2016 – 17	644	7,220
2017 – 18	663	13,511
2018 – 19	576	12,049

Source: The Statistical Handbook, Directorate of Planning Statistical And Evaluation, Government of Goa.

Table 2 indicates that there has been a tremendous increase in the number of Self Help Group and its members registered under the Cooperative Societies Act. In the year 2011-12, the numbers of Self Help Groups registered were 242, and in the year 2018 -19, it is seen that the number of SHGs has increased to 576. It can also be noticed that the number of members who are enrolling themselves is growing at a massive scale compared to the years 2011 and 2019.

1.5. Gender Parity :

Gender gaps are caused by the social rather than the biological difference between men and women. Gender gaps exist in nutrition, health, education, literacy, job opportunities, income, ownership of land, access to credit, access to resources, and participation in political processes. The size and nature of the gaps vary from country to country, but their existence is universal (Okum, 2012). Even though cooperatives are gaining so much popularity, there is a requirement to implement various activities to understand cooperatives' contribution to advancing gender equality (Bastida, 2020).

2. Literature Review

Kornginnaya (2020), Mayala, Kumburu (2018), Padhan et al. (2019), Azad (2017), Duguid and Weber (2015), in their conceptual study, identified the challenges faced for the advancement of gender equality in cooperatives

and gender equality and women empowerment. Kornginnaya's (2020) study reveals that cooperatives have contributed immensely to overcoming these barriers because of various opportunities and cultural advancements. Mayala, Kumburu (2018) found a need to organise multiple genders equalise activities so that the results in business terms benefit both men and women. Padhan et al. (2019) recommended that if the misbalancing factors are appropriately analysed and women are given powers in their hands, it will lead to development. Azad (2017) found that women are being empowered by using cooperative business models to support themselves, their households, and communities in several instances. Duguid Weber (2015) concluded that most cooperatives only mention gender equality in connection to the overarching Co-operative Principles Das (2019), signified the role of SHG in developing socio-economic status of rural women, alleviating rural poverty, and increasing employment opportunities, to promote income-generating activities in rural household women and understood that the SHGs had had a more significant impact on the economic aspects of the beneficiaries. Bastida et al. (2020) researched Cooperatives contributing to overcoming the gender gap and found out that there is a need for responsive policies and programs that promote the cooperative model since it promotes female employment and women's entrepreneurial activity even in periods of economic austerity.

Shaharban (2017) analysed the role of Women Cooperative Societies in strengthening women's access to financial activities. Through the primary and secondary data collected, he found out that women can do well in all spheres of life, particularly in the cooperative. Thapa (2016) explored the status of cooperative female members' memberships and governance like a board of directors and job opportunities provided by the concern cooperatives in Ilam, Nepal, through systematic random sampling researcher collected respondents from 226 cooperative members. It analysed that cooperatives in Islam are neither are nor gender friendly. There is a big gap in participation in cooperatives between male and female members. Mudannayake et al. (2016) attempted to study relationships among gender and management performance in grassroots level cooperatives (GRLCs) in Sri Lanka. The researcher concluded that no gender-based differences appeared in the direction of thrift and credit cooperative societies at the grassroots level through the empirical study. But gender-based differences are visible at the provincial and national levels. Sobering (2016) investigated producing and reducing gender inequality in a worker-recovered cooperative. A well-structured schedule was used to collect the data from the respondents by personal interview method. The study revealed that although gender remains a salient feature of the

workplace, the cooperative has also adopted policies that take steps toward addressing gender inequality. It concludes by offering an updated theoretical framework for the future study of “gendered organisational.

Halkias et al. (2015) Brun et al. (2015) examined the challenges women entrepreneurs faced based on secondary data. Both concluded that the major problem in front of women entrepreneurs is gender discrimination. Derera et al. (2014) studied the impact of gender on start-up capital. The study is empirical. Fifty-six samples were collected using the systematic sampling method. To analyse the data snowball technique was used through that researchers found out the gendered nature of start-up capital for women entrepreneurs in South Africa and the difficulty women face in venturing into non-traditional industries. Sarfaraz et al. (2014) attempted to assess the relationship between women’s entrepreneurship and gender equality. The study was empirical. To collect the data, 145,248 individuals were interviewed across 41 countries globally. The data were analysed using correlation analysis. The results indicated that in countries with higher levels of income (higher degrees of gender parity), the tendency towards starting an entrepreneurial venture diminishes due to the inverse relationship between early-stage entrepreneurial activity and gender development equality. Tesfay et al. (2013) examined the role of cooperatives in promoting socio-economic empowerment of women: evidence from multipurpose cooperative societies in the South-Eastern Zone of Tigray, Ethiopia. The study is empirical; the questionnaire was distributed among 75 multipurpose cooperative societies using the random sampling method to collect the primary data. Descriptive statistical tools were used to analyse the data. The study results indicated that women's participation in cooperatives is minimal. Reddy et al. (2019) examined the impact of self-help groups, capacity-building measures, and perceived tension on women’s empowerment. The research was based on a primary source of data. 351 samples were collected using the random sampling technique. Based on data analysis, the researcher found out that contributes to understanding the role that capability building (CB) measures plays in improving Women's Empowerment. Isaac (2015) attempted to find feminist technical assistance to women in rural production cooperatives in three communities in central Mexico. The study was conceptual and based on secondary sources of data researcher concluded that these organisations provide an excellent place to start, where poor women and feminist professional planners can develop relationships characterised by mutuality, solidarity, and respect.

3. Research Gap :

After reviewing the literature, it was found that most researchers (Das 2019, Padhan et al. 2019, Banerjee 2017, Sarfaraz et al. 2014, Reddy et al. 2019) have studied women empowerment, gender equality, and Self Help Groups. But very few studies have been conducted on women empowerment and gender equality by taking only those Self Help Groups registered under the Cooperative Societies Act. So, the current research focuses on assessing women's empowerment through Self Help Group Cooperative Societies.

4. Research Problem :

To date, entrepreneurship research has rarely focused on cooperatives. So the proposed study is conducted to determine how Self Help Group Cooperative Societies contribute to overcoming gender inequality and empowering women. In recent times, some women have contributed to a great extent towards the development of the economy, but many are yet to realise their potential. In the light of this observation, the study focuses on understanding the role cooperatives can play in empowering women to take up entrepreneurial activities in Goa. The research will enable the policymakers to draft policies that will promote women's empowerment and provide valuable insights for potential women entrepreneurs by highlighting the benefits of cooperation and teamwork.

5. Research Questions :

- I. What Are The Factors Influencing Women To Join Self Help Group?
- ii. What Factors Influence Women's Empowerment In Self Help Groups?
- iii. Has The Member Attained Women Empowerment And Gender Equality After Joining The Self Help Group?
- Iv. What Are The Impacts of Training Programs On Members of Self Help Groups?

6. Research Objectives :

- I. To Study The Motives And Objectives of the Women Behind Joining Self Help Group.
- ii. To Understand The Factors Influencing Women's Empowerment In The State of Goa And Analyse How Far The Members Have Attained Women Empowerment And Gender Equality After Joining The Self Help Groups

iii. To Evaluate The Impact of Training Programs On Self Help Groups Members.

7. Research Methodology :

The research method chosen for this study combines primary and secondary data. The primary data was collected from the structured questionnaires. It was distributed using a combination of convenient and snowball sampling methods among the 130 female members of Self Help Groups from Goa to gather the required information. The secondary data was obtained from articles from verified journals, handbooks, magazines, and published reports by Government. The survey was carried out from early October 2021 till mid-November 2021. The study was limited to those Self Help Groups registered under the cooperatives societies act. The questionnaire was divided into five sections to fulfil all four objectives. The first and second sections of the questionnaire assessed the members' demographic characteristics and income and saving details. The third section of the questionnaire includes various factors influencing women empowerment and empowerment attained by the members after joining the Self Help Group; a five-point Likert scale was provided. The fourth section of the questionnaire contained various factors about the indicators of gender equality attained by the members after joining SHGs. In this section also five-point liker scale had been used. Lastly, the fifth section of the questionnaire deals with the training and development programs attained by members of self-help groups. A list of various types of training was given like tailoring, embroidery, beautician training and many more. Conclusion and included the multiple factors that show the Impact of exercise on members after joining the Self Help Groups.

8. Analysis And Discussion :

8.1. Profile of Respondents :

A descriptive statistical technique has been used for the demographic profile analysis. Which gives a clear picture of how many respondents have chosen a given option.

Table 3 shows that the age group which is majorly part of Self Help Groups is 21 to 30, which depicts that the youth are participating actively in SHGs. It also shows that all the women of groups are more or less have completed their schooling and are literate.

Table 3: - Showing Frequency Distribution Across Education And Age

Education	Age (in a year)					Total (In %)
	21 to 30	31 to 40	41 to 50	51 to 60	Above 60	
Below SSC	4	12	4	0	2	17
SSC	10	14	15	5	0	34
HSSC	21	9	6	1	0	28.4
Graduate	12	5	3	0	0	15.3
Post-Graduation	4	1	1	0	0	4.6
Technical Degree Course	0	0	1	0	0	0.7
Total (in %)	39.2	31.9	23	4.6	1.5	100

Source: - Primary Data

8.2 Motives and objectives of women behind joining self help groups :

Through this objective researcher identified various factors influencing women to join the Self Help Groups. To analyse the data for this objective, a descriptive statistical technique has been used to provide the exact number of respondents choosing a particular variable.

Table 4 – Factors motivating women to join self help groups

	Frequency	Per cent
Increase in social status	15	11.5
Economic empowerment	81	62.3
Access to banking services	16	12.3
Access to credit facilities	18	13.8
Total	130	100.0

Source: - Primary Data

Table 4 indicates that economic empowerment highly influences women to join Self Help Groups, which count 62.3% of a selected population. Around 13.8% of respondents join the Self Help Groups to access credit facilities. And least number of respondent joins Self Help Groups to increase their social status. To conclude, the majority of the respondent are motivated to join SHGs, to make themselves economically strong.

Table 5 depicts that the majority, i.e. 62.3%, of respondents joining the Self Help Groups, were self-dependent. The objective of 23.1% of respondents behind joining SHGs is to avail credit facilities. 11.5% of women's dream behind joining the Self Help Groups is to start a new venture. And a minority of respondents, i.e. 3.1%, are joining SHG to repay the loan.

Table 5 – Objectives of women behind joining self help group

	Frequency	Per cent
To avail credit facilities	30	23.1
To be self-dependent	81	62.3
To start a new venture	15	11.5
To repay loan	04	3.1
Total	130	100

Source: - Primary Data

8.3 Factors influencing women empowerment :

The aim behind choosing this objective is to determine which factor influences women's empowerment and to what extent. The technique used for the same is factor analysis. It is a data reduction technique that groups similar statements as a factor.

Table 6: Showing results of factors influencing women empowerment

	Component		
	1	2	3
Factor 1: demographic factors			
Education qualification	.786		
Family background	.824		
Financial position	.770		
The core competency of the member	.724		
Factor 2: Involvement in Decision Making			
Involvement in the type of business		.590	
Involvement in the household decision-making process		.832	
Contribution towards the family		.885	
Nutrients and health care decisions		.854	
Factor 3: personal development			
Prospect to learn new skills			.645
Aspire to lead a team			.878
Expression of opinion			.878
KMO measure of sampling adequacy		.804	
Eigenvalue	5.879	1.357	1.151
Variance explained	53.442	12.338	10.461
Cronbach's Alpha (a)		.912	
Total variance explained		76.241	
No. of items	4	4	3

Source: - Primary Data

Table 6 depicts that, Factor analysis can be performed since the KMO measure of sampling adequacy showed .804, which indicates that the data is satisfactory, and the results of Bartlett's test are 0.000, which is satisfactorily significant (sig=0.000). The development of the factor analysis is shown in table 6. Factor analysis was carried out on the 11 variables to group them into several factors. The post-survey data were analysed, and all the variables were classified into three elements. The resulting elements were then named F1: Background, F2: Involvement, and F3: Personal Development. The overall reliability of the 11 variables gave a fair value which was considered acceptable (a = 0.912) since it can be seen that given factors greatly influence empowerment.

8.4. Women empowerment and gender equality attained by members of SHG :

This objective will explain the level of empowerment and gender equality achieved after joining SHG. To interpret the data paired sample t-test has been used. The hypothesis framed for this objective is:-

A. Empowerment through self help groups :

H₀ = There is no significant difference in the indicators of empowerment before and after joining SHGs

Table 7: The Level of Empowerment

Indicators of empowerment	Mean		Mean difference	Sig. value (2 tailed)
	Before	After		
Improvement in confidence level	1.77	3.71	1.938	.000
Enhanced financial awareness and literacy	1.95	3.77	1.814	.000
The realisation of own potential and strength	2.00	3.90	1.900	.000
Improved leadership skills	1.87	3.74	1.876	.000
Better communication and organisational skill	1.93	3.84	1.907	.000
Advancement of knowledge and other learnt skills	1.88	3.86	1.985	.000
Increase in savings	1.84	3.82	1.977	.000
Better socialising skills	1.91	4.00	2.093	.000

(Continued..)

Participation in the household decision-making process	1.98	3.91	1.930	.000
Improved level of public speaking and public relation	1.97	3.83	1.860	.000
Knowledge of personal rights.	1.82	3.83	2.008	.000
Participation in fertility decisions	1.82	3.74	1.915	.000
Alertness on personal grooming and cleanliness	2.05	3.89	1.845	.000
Self-realisation about the importance of education and priorities in life	1.91	3.98	2.070	.000
Futuristic planning to meet up contingencies	1.88	3.99	2.109	.000
More knowledge about the market and available avenues	1.90	3.97	2.069	.000
Better level of awareness on hygiene, nutrients and health care decisions	2.03	3.98	1.946	.000

Source: - Primary Data

Table 7 shows that P-value is significant, which is within the 5% level of substantial, i.e. 0.000. The null hypothesis is rejected; hence, there is a considerable difference in the indicators after joining the Self Help Groups. It has shown a positive impact on empowerment indicators after joining SHGs as the post mean value for hands is more significant than before entering the Self Help Groups.

B. Gender equality through SHGS

H0= There is no significant difference in the indicator of gender equality before and after joining SHGs

Table 8: Result of gender equality attained after joining SHGs

Factors	Mean		Mean difference	Sig. value (2 tailed)
	Before	After		
The equitable opportunity of education	1.92	3.54	1.623	0.000
Equitable access to personal rights	1.98	3.64	1.651	0.000

(Continued..)

Equitable access to learning new skills	1.91	3.68	1.777	0.000
Equitable access to job opportunities	1.93	3.72	1.792	0.000
Equitable access to start new ventures	1.88	3.85	1.969	0.000
Equitable opportunity to lead a team	1.84	3.77	1.931	0.000
Equitable opportunity to express opinion, views and ideas	1.94	3.80	1.860	0.000
Equitable opportunity to participate in the household decision-making process.	1.95	3.88	1.930	0.000
Equitable access to financial decisions.	1.94	3.75	1.815	0.000
Equitable access to participate in politics	1.80	3.48	1.680	0.000
Equitable consideration in fertility decisions.	1.95	3.75	1.800	0.000
Equitable access to health care and nutrients facilities.	1.98	3.91	1.923	0.000
Equitable opportunity in public speaking	1.90	3.94	2.038	0.000

Source: - Primary Data

Table 8 depicts that P-value is for the above model is 0.000; hence we reject the null hypothesis as it is less than 0.05 at a 5% level of significance and conclude that there is a significant difference in the indicators of gender equality before and after joining the Self Help Groups. It has shown a positive impact on indicators of gender equality after joining the Self Help Groups as the post mean value for indicators is more significant than before joining SHGs.

8.5. The impact of the training program on SHG members

this will help examine how many members have availed of the training programs and started their own business. The descriptive statistical technique has been used to get the exact numbers to analyse.

Table 9 depicts that 50% of women have set up their own business after attending the training programs provided by their Self Help Groups.

To find out whether there is a positive or negative impact on the women after attending the training programs.

Table 9: Result of Frequency Distribution

Have you attended training programs	Have you started a new venture		Total
	Yes	No	
Yes	67	62	130
No	0	0	0
Total	67	62	130

Source: - Compiled From Primary Data

Table 10: The impact of a training program on members of SHG

S. N.	Factors	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Sum	Average
1	Addition to knowledge	1	2	30	80	17	130	3.87
2	In addition to your aptitude	2	9	18	82	19	130	3.87
3	In addition to your skills	1	1	12	81	35	130	4.16
4	Confident to start new venture after attending training	1	14	27	39	49	130	3.98

Source: - Primary Data

In table 10, the majority of the respondent agree that there is an increase in their knowledge, aptitude, skills, and confidence level to start a new venture. As the average is above 3.00 for all the variables, we can conclude that there is a positive impact of training programs on the members of SHGs.

9. Suggestions :

Based on the analysis and interaction with women, most women are not aware of the various facilities, schemes, subsidies provided by the cooperatives government to start the new business. Since they were not aware, even though they had the potentiality to start a business because of financial constraints, they were unable to do the same. Government should introduce special schemes for promoting entrepreneurship. This will propel

the SHGs members to take up business risk and enable them to improve their economic conditions.

During the study, it has been observed that SHGs members do not feel confident to start new ventures or undertake new jobs despite conducting training and skill development programs for economic upliftment. Members are advised to attend the sessions properly, and they should clear all their doubts and queries for better understanding.

10. Conclusion :

Self Help Group Cooperative societies are considered one of the essential tools in the participatory approach for women's economic empowerment. It is a necessary institution for improving women's lives on various social components. The study reveals that most of the population are active members of the SHGs. SHGs have played a significant role in providing economic assistance to the members, and to some extent, it has solved the problems of women. While interacting, it was also found that members of one Self Help Group are helping the members of other Self Help Groups to grow and develop and become financially independent. As far as women empowerment and gender equality are concerned, SHGs have positively persuaded them towards those objectives. They have realised their worth and value as women and fought for equal rights. Thus, it can be further concluded that SHGs play a significant role in empowering women and shove towards gender equality and have positively affected the economic conditions of the members.

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02

Participation of Young Women and Strengthening of the Manapad Women Workers Palm Leaf Industrial Cooperative Society

Dr. S.v. Akilandeswari *, Dr. C. Pitchai **

Abstract:

Women empowerment can be achieved only by way of economic independence. Gender equality can be by empowering women by providing them with skill and knowledge enables them to become independent. Only if women's economic needs are fulfilled, she can be empowered in many ways and one of the ways is through Women Industrial Cooperative Societies. The concepts of cooperation are of collective action indeed help the women members of these cooperative societies to improve their socio-economic status, particularly to the disadvantaged section of the Society. Hence, this study has been framed with an objective to find out the role of cooperatives in empowering women and the participation of Young Women in the cooperatives. The society involves in weaving of palm leaf crafts and korai grass mats. The society is 64 years old, but still its development is unknown to the world. Technology adaptation and e-marketing is not used, neither the society has diversified or involved youth in its activities. The study explores the level of performance of the society and its competitive advantages for the survival and sustainability. Cooperatives are engaged with social and economic objectives of weaker sections of the society. The social objective is to safeguard the interest of poorer sections against exploitative trends and concentration of wealth.

* Guest Faculty, Department of Rural Industries and Management, The Gandhigram Rural Institute (Deemed to be University), Tamil Nadu.

** Professor and Head, Department of Cooperation, The Gandhigram Rural Institute (Deemed to be University), Tamil Nadu.

And the economic objective aims at creation of employment opportunities and improves the standard of living of the poorer sections and empower. It explores the possibility of involving young women in the business so that the cooperatives could develop new product, production, marketing with a competitive spirit.

Key Words:

Strategies, Employment Generation, young women, Socio and Economic Development, Survival, Sustainability.

Introduction :

The cooperatives encourage the qualities/skills like initiation, entrepreneurship, creativity among women. Empowerment of women is seen as one of the most important means of poverty eradication, as trying to fulfill the Sustainable Development Goals, but women artisans are still under the control of number of person's viz., husband, in-laws, son and daughter. They are in a pitiable position. The United Nation's Sustainable Development Goals is also reiterating the same. The cooperative institutions comparatively found to be suitable for the artisans, particularly women. Women can be more powerful when they are in social groups like cooperative societies, SHGs, NGOs, political parties, clusters and social enterprises. They feel secured when they are in groups and empowerment is possible since they are members in the cooperatives. Industrial cooperative societies play an important role in developing small and cottage industries in the State. These societies play an important role in generating employment and income to the rural people. Whereas, a general opinion is that the participation of young women in the traditional activities i.e., artisans is reducing and that result in only aged members in the cooperatives. The youth participation is very much needed as the cooperatives will be vibrant with the young blood.

This study has an objective to find out the strategies for the involvement of women in the cooperatives. The Manapad Women Workers Palm Leaf Industrial Cooperative Society Limited is chosen as the sample. The members are weaving palm leaf crafts and korai grass mats and they are taken for study. The study explored the extent of awareness of women artisans and made them to utilize all the benefits from the cooperatives and their contribution towards empowerment for sustainability.

In the rural sector of India, the cooperatives perform numerous economic activities. The range of activities are covering rural and urban credit, production, processing and marketing of agriculture and allied sector, produce, inputs such as seeds and fertilizers, housing, consumer goods etc., It is always a necessity for the cooperatives to succeed in markets and marketing activities in which economically weaker people are involved. Artisans/ Industrial cooperative societies occupy a key position in developing small and cottage industries in the State. These societies play an important role in generating employment and income to the rural people. Cooperatives are engaged with social and economic objectives of weaker section of the society. The social objective is to safeguard the interest of poorer sections against exploitative trends and concentration of wealth. And the economic objective aims at creation of employment opportunities increase and improve the standard of living of the poorer sections and empower them.

Women empowerment refers to increasing and improving the social, economic, political and legal status of the women, to ensure equal-right to women, and to make them confident enough to claim their rights in education, self-worth, respect and dignity, have complete control in and outside of their home and workplace, to make their own choices and decisions, have equal rights to participate in social, religious and public activities, determine financial and economic choices without any gender bias and have comfortable working environment. Women empowerment with cooperatives or through social enterprises is very much possible; hence it is discussed to study the position of women artisans. The Manapad Women Workers Palm Leaf Industrial Cooperative Society Limited is chosen as the sample unit that weave palm leaf crafts and korai grass mats. The study explored the extent of awareness of women artisans and made them to utilize all the benefits from the cooperatives and their contribution towards empowerment for sustainability.

Tamil Nadu Palm Product Development Board :

Tamil Nadu is pioneer in the development of Palm Products Industry in India. Out of the estimated 8.59 crores of Palmyrah in India, about 5.10 crores of Palmyrah are in Tamil Nadu. Tamil Nadu is a potential centre for the growth and development of Palm Products Industry, which attracted foreign exchange through export of Palm Products.

Livelihood Security :

For livelihood and security of the artisans, steps are taken in the

matters of providing training to artisans on technical know-how of preservation of Palmyrah Nungu (like Coconut) and also exporting Palmyrah Nungu, Palm Fibre and Palm Leaf articles to foreign countries.

Ecological Security:

Palmyrah (Palm Tree) is declared as the "**State Tree**" of Tamil Nadu. Palmyrah tree prevents soil erosion and protects natural wealth. The palm products are free from pollution environment and eco-friendly. Hence, programmes have been formulated with a long term view to grow and protect Palmyrah trees, to create awareness among the public, to develop and fully utilize Palm Products Industry for the improvement of standard of living of the rural Palm Products artisans. (<http://www.tn.gov.in/hhtk/palm/palm-sales.htm>, retrieved on 15.12.19)

Product And Export of Palm Fibers And Palm Leaf Articles :

The palm products are classified into two types i) Edible Palm Products and ii) Non- Edible Palm Products. The edible palm products are Neera, Palm Jaggery, Palm Sugar, Palm Candy, reserved Nungu, Palm Fruit Jam, Palm Chocolate varieties and non-edible products are Palm Leaf articles, Palm Naar articles, Palm Fiber and Brush varieties, Date Palm Baskets and other Handmade palm Products are produced.

Palm Fiber is being exported to foreign countries like America, England, Belgium, Philippines, Japan, German, Australia and Netherlands by the Tamil Nadu State Palmgur and Fiber Marketing Cooperative Federation and exporters from Thoothukudi in Tamil Nadu. The Tamil Nadu State Palmgur and Fibre Marketing Cooperative Federation has exported palm Fibre value of Rs.200 lakh during the year 2017-2018 through its Fibre Export Wing. Women artisans are engaged in the production of fine Palm Leaf articles in Manapad in Thoothukudi District, Pulicat in Tiruvallur District, Adukkamparai in Vellore District and Manamadurai in Sivagangai District.

Manapad:

The Manapad village is located in the state of Tamil Nadu having with a state code 33 and having the village code 642591. The Thoothukudi is the district of Manapad village with a district code 627. The total

geographical area of village is 453.57 hectares / 4.5357 Square Kilometres (km²) / 1120.7958787206 acres, with population of 5795. Manapad is a coastal hamlet near Tiruchendur. Manapad has a unique coastline that is formed by multiple layers of lava accumulated over hundreds of years; hence, fishing has become the main occupation. This gives Manapad the distinction of witnessing the best wave formation throughout the year and is one of the best natural surfing sites in India.

Profile of the Manapad Women Workers Palm Leaf Industrial Cooperative Society Limited:

This society was registered during 26th September 1957, and started its function from 1st October 1957. It started its production in Kulasekarapatnam and Manapad and functions were carried in both the places. There were 815 members. Initially the women's artisans were weaving boxes called pilapetti, and set storage boxes.

Then, the Government started two training centres with trainers to uplift the livelihood and economy of the local women and provided stipends to the women artisans. The artisans started crafting crafts like plates; baskets, weaving boxes called pilapetti, and set storage boxes. Both the trainer and the trainee became the member of the society. It was successfully run by late cooperators Mrs. Saviour Victoria, Mr. Pitchai Vilvarayar and Tamil Nadu Palm Jiggery and Thumbu marketing societies president Mr .Sambantham of Tirunelveli District. Till 10th July 1972 Government appointed the employees and the office bearers for the society. After 2001 the society started functioning under Palm Product Development Board.

Presently, the society is running with 765 members and 260 are actively producing crafts. All the active members were contacted for the study by following census method. The society has Rs.1,59,820 as paid up share capital. They don't have any loans. The society collects Rs. 20 per month as reserve for raw material, if any fluctuation in rate of raw material, the society will pay back. The society made all the members to take up insurance and collects Rs. 200, per year as premium for insurance in LIC and pay Rs.2,00,000/- if they die. During, Golden Jubilee year, under self-employment scheme a van worth of Rs 3.78/- was donated to this society. The performance of the society is given in table 1

Table:1 - Performance of the Society (Amount In Rs. Lakh)

S.No.	Year	Purchase	Sales	Profit
1.	2013-2014	11,99,018	16,65,148	4,66,130
2.	2014-2015	17,30,212	18,15,596	85,384
3.	2015-2016	22,46,193	30,83,037	8,36,844
4.	2016 -2017	20,19,027	29,15,643	8,96,616
5.	2017-2018	23,48,889	34,88,602	11,39,713
6.	2018-2019	23,77,880	34,75,708	10,97,828
7.	2019-2020	16,30,156	18,20,658	190502

Source: annual reports of the Society

From the above table it is inferred that the society is running profitably. It has increased from year to year, but in the year 2014-15 the profit level has decreased because of the scheme MGNREGA, all the artisans went to 100 days employment, so the productivity was less. As well as Covid situation also brought down the sales. The active members support was there always and because of that the society earned profit. If the remaining in-active members also becomes an active members, it will have a multiple benefit viz., the members income level will increase, consumers will have more choices of products and simultaneously the society's income will increase.

Production And Marketing Activities of the Society :

Women artisans work from house. They use palm leave raw material. They receive their raw material in their house itself, when there is scare they go to nearby village. The society maintains a book through which entry is made on purchase on every Monday and Thursday. The women artisans produce crafts like plates, baskets, weaving boxes called pilapetti, bags, pencil box and set storage boxes. Initial the cost of single leaf is Rs 2 to Rs 3/- In between 2001 to 2009, it has increased to Rs. 15 to Rs 20, but after 2010 it was Rs.45. Raw material is a big problem for the women artisans. It is not taken care properly by the society. Everyone in the family weaves the craft. Production is done on the basis of demand made by the society, so it is based on the requirement of craft. If they produce extra it will have storage cost and it has to be borne by the artisans.

Society collects the finished crafts directly from the artisans. They

collect the finished crafts from the artisan's house on every Monday and Thursday. And the money is paid immediately for the craft that are procured from the women artisans. Direct marketing was carried out in the initial period and based on the demand placed by others. From past two years the society started marketing the products to intermediaries, SHGs, NGOs, Poombuhar etc.

Strategies for involvement of Young Women in Cooperatives:

1.Schemes of Government :

The schemes implemented by central government have not reached many state governments and also to the unorganized. Therefore, the central and state government has to be very effective in implementing the schemes for the artisans and see that it reaches them. They should have full-fledged department to align with cooperative society, NGOs and SHGs. For the betterment of the artisans and these activities are should be carried out in Thoothukudi.

- Common facility centres.
- Creation of Raw Material Banks.
- Building Infrastructure for Marketing.
- Communication Network.
- Design Banks (CAD centers).
- Establishment of Resource Centres.

These components have been arranged for all other crafts, similar to these facilities, these craft should be considered and help in sorting out the challenges faced by the women members. Therefore, the need of the hour is higher levels of funding.

2.Economic Activities :

The income earned by the palm weaving only meet their daily bread and it is not sufficient for leading a good/decent life. More income generation opportunity and activities through training, innovative practices and equipments has to be provided to these artisans. The Government should create a sustainable model for development, developing markets at the bottom of the pyramid, strengthening channels, higher productivity, so that the artisans earn sustainably and lead a decent life. Apart from the economic development of the artisans, one also needs to take account of health, education and access to other public services such as justice, housing, civil rights, security, information and communications.

3. Diversification And Practicing of other Crafts :

Practicing of one craft is not enough for the livelihood of the women members in the society, hence the society should help the women members to get trained in any of the below given crafts, it is easy to train the women artisans as the aesthetic nature is in-built in women. These additional practices will help these women members to change to current scenario and earn more income. And more young women get into this industry with innovative ideas.

4. Palm-Leaf Printing :

Journals and manuscripts in the early days were written on palm leaves. Palm-leaf drawings are an excellent crafts of Kanniyakumari and Thoothukudi. One can choose from a wide range of beautiful palm leaf paintings. The palm-leaf paintings may well have started with the adornment of manuscripts with graphic illustrations of legends and quickly advanced to become an art on its own. The exquisite fine drawings are cautiously engraved and cut out to hold a world of fiction and riddles stunningly portrayed by the artists of Tamil Nadu. With etching and practice of colours, this art form has cultivated a multitude of fables, ideas and anecdotes to life.

5. The Magnificent Handicrafts like Lacquer Ware, Lace Works And Cross-Stitches :

Handicraft products like lacquer ware, lace works and cross-stitches. So these crafts can be practiced by these women members.

- The society can concentrate on export of fish and sea foods,
- Pickle making with sea foods,
- Processing of sea food,
- Eco-tourism and craft-tourism.

Information And Communication Technology (ICT) :

Applications and implementation of ICT applied in the process of production and marketing of crafts may progress the artisans. E-marketing, internet marketing is latest trend in marketing. This may help in improving the business by identifying new intermediaries to analyse the demand, adoption of the technology in promoting the craft. With the help of ICT, an artisan can produce as many designs as possible that can be customized as per the buyers' requirements and thereby the artisans may get orders with less investment. Young artisans can easily adapt to new technology and become entrepreneurs.

Promotions of Palm Products :

A market development campaign for the palm craft has to be very effective in target markets and planned by the authorities. The Government and the agencies should arrange for training at National and International level with stipend to compensate the wages of the artisans. Interchange of Cultural and Craft Exchange Programmes for the artisans and make them participate in fairs, melas and exhibitions, buyer-seller meets, folk craft festivals in India and abroad. Further, trade delegations and creation of infrastructural support for design development, production technique and product design, besides setting up of common facility centres at production place is also the need of the hour. Creating awareness among the younger generations and train them to make crafts of global standard is a must now. Creating awareness on the government schemes through advertisement and publicity both in print and electronic media is warranted now.

A well organized campaign could be supported by the Ministry of Tourism, the national airlines, hotel and restaurant associations, banking institutions, shipping agencies, and railway junctions etc. The society should target foreign importers/exporters, merchandising groups and buying agents, as well as experts in the trade such as interior designers, decorators, managers of museum shops and representatives of mail-order firms. The EPCH should support the artisans in exporting eco-friendly or green crafts to the global market.

Channels of Distribution :

The artisans depend mostly on the master craftsmen, entrepreneurs, dealers and cooperative societies for marketing their finished products. Some producers sell directly to the consumers, whereas some sell through dealers, master craftsmen, entrepreneurs and sales emporia. Sometimes, the dealers and master craftsmen sell the handicraft products through sales emporia, which directly contact the consumers through its various outlets located at various important towns. There are certain limitations in the present channels of distribution of handicrafts. Hence, the products have to be channelized through emporia's, cooperatives, clusters, registered NGO's, SHG's etc.

Training Centres And Programming for Members :

In Tamil Nadu, there is a shortage of skilled craftsmen, thus the business is affected, in order to tackle this problem the government should arrange

specialized training programmes to the manufacturing artisans. Foreign and other state master designers may be invited to the centres to design, use of the natural materials etc to render guidance to the craftsmen. Not only the fibre product crafts, which ever suitable craft or business is possible for women members can be started and trained to attract the young women members.

Formation of Special Economic Zones :

Special Economic Zones (SEZ) are being established in prosperous areas than economically backward areas. Therefore special zones exclusively for artisans may be formed in the backward areas of the country. So, Manapad of Thoothukudi shall be announced as economically backward zone and these artisans made to benefit by the schemes announced by the Governments.

Conclusion :

In today's globalized and competitive world, wide varieties of products are easily available, with multi-utility, long lasting and feasible pricing. Technology adaptation and e-marketing is required, diversification of business is must for success. Cooperatives should work for the welfare and development of the members first then the development of society. So, the the society has to diversify its business activity for increasing their business volume and involve youth in its performance to bring changes and innovative idea into business for the survival and sustainability. This cooperative is engaged with social and economic objectives of improvising the weaker section of the society. It has created employment opportunities to increase and improve the standard of living of the fisher community people and empower the women of this society. Exploring possibility of involving young women in the business so that the cooperatives could go for new product development, production, marketing with a competitive spirit.

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Awareness, Perception and Participation in Cooperatives among youth in Goa

Mrs. Sarvesha Dhaimodkar *, Mr. Sahil Pradhan Student **

Abstract :

Cooperation is a universal concept. Though worldwide accepted, Cooperation is not universally practised for public benefit. Co-operatives run on the “One for all and All for one” principle. Those involved in the co-operative movement need to understand and practice this principle of being united and staying united.

This paper aims to assess the Awareness, Perception and Participation of Youth in the functioning of co-operatives. The researchers also aim at examining the understanding of the core concepts and principles of co-operatives among youth.

The study is Primary, with the main focus on analysing the responses received from the respondents using SPSS and interpreting the data scientifically. The required data for fulfilling the objectives selected for this paper is collected from primary and secondary sources. The secondary sources included articles from reputed journals, books etc. The Primary source is the collection of responses from a sample of young respondents; 150 number by administering a structured questionnaire. The questionnaire consisted of youth awareness, perception, and participation in co-operatives.

The study found that awareness about co-operatives among youth is shallow in Goa across gender & occupation. However, Perception is found at the almost same level without any significant difference among youth irrespective of their degree of awareness. Though the child is willing to join co-operatives, they are unaware of the challenges to be met.

* Associate Professor, GVM's G.G.P.R. College of Commerce & Economics, Farmagudi, Ponda Goa

** M.Com Part I, PG Dept. of Commerce, Government college of Arts, Science & Commerce, Khandola.

Keywords:

Awareness, Co-operatives, Participation, Perception, Youth.

1. Introduction :

Cooperation is a universal concept. Starting with the unique goal of benefitting oneself, the tree has grown its branches in every nook and corner of the world. Cooperation has become a third way that can be adopted to develop an economy. Though worldwide accepted, Cooperation is not universally practised for public benefit. Co-operatives run on the “One for all and All for one” principle. A Co-operative movement urges the associated and interested stakeholders to stay united and respect the principle of unity among members.

Co-operatives are hybrid organisations with dual motives. To achieve their objective of safeguarding the economic interest of members, it needs to keep the organisation running, for which they require to earn profits and at the same time serve the community/society.

The co-operative movement started with the intention of bringing together that section of society having restrictions on growth due to limitations on their resources. Though Cooperation is practised in almost all countries, the developing nations with little resources found these co-operatives as a boon. Co-operatives have become the vehicle for the improved performance of any country.

A Cooperative Society is “An association of persons varying in number, who are grappling with the same economic difficulties and who, voluntarily associate based on equal rights and obligations, endeavour to solve those difficulties, mainly by conducting at their own risk an undertaking for which they have transferred one or more of such their economic functions as correspond to their common needs and by utilising this undertaking in cooperation for their common material and moral benefits”. (International Labour Organisation;T.N.Hajela, 2010)

0.1 Significance of ‘Youth And Cooperatives’ :

Youth is a term that signifies energy, willingness and a zeal to achieve the goal. The youth has the future of the country in their hands. These youthful energies require to be nurtured, trained and educated for the upliftment of

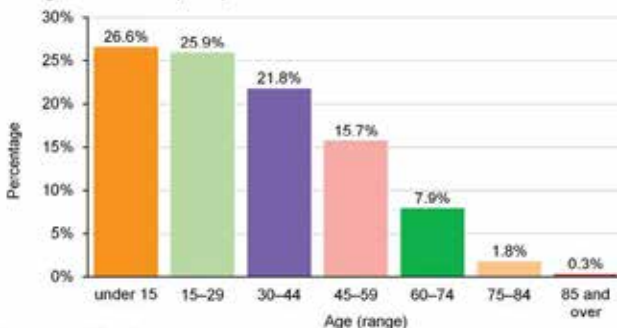
the country's economy. Co-operatives are training grounds for creating the feeling of unity and togetherness for the mutual benefit among youth. Co-operatives need enthusiasm, entrepreneurship skills, and a responsible attitude to work successfully. The young have this in abundance if given proper guidance and support. A large part of the population is the young generation with many talents and entrepreneurship skills. India needs to channelise this asset in the right direction. It is vital that the young age understands the co-operative's principles and teaches them it's their work. However, it is observed that Co-operatives are becoming stepping stones for unhealthy and uninspiring activities. Youth are fast losing interest in the spirit of cooperation. A preliminary study conducted on the students of a college concluded that students have almost no or little knowledge about Co-operative working style.

1.2 Demographics in India :

India is considered a young country with a majority of its population considered “young” and a low dependency ratio. In India, agriculture is highlighted as the prime occupation, with most people involved in either agriculture or agriculture-related activities. The age-wise distribution of population indicates that the maximum population in 5 years cohort in 2011 lies in the age group of 10-14 (both inclusive). However, this will change, and by 2031 it is projected to lie in the age group of 25-29. This is further explained with an example of the bar diagram.

As per the encyclopedia Britannica, in 2018, India shows its majority population as young, with almost 52% of the people aged 0-29 years. With a remaining people in the age groups falling above 30 years. With such a young population as its primary asset, India is considered a young country with many potentials.

India age breakdown (2018)



1.3 Demographics of Goa :

Goa is a tiny state with eye-catching scenic beauty and internationally recognised tourism spots. International tourists flock to Goa to appreciate its beautiful beaches and clean and refreshing environment. Goa is situated in the Western part of India and is Protected by Sahyadri ranges on one side and beaches. Karnataka and Maharashtra are its neighbouring states in the north and south-west. Goa was under Portuguese colonial rule for almost 450 years and has affected its civilisation. The population here is primarily literate and westernised to a small extent. Though a small state Goa has a population of 14 lakh 58000 as per the 2011 census. It has an area of 3,702 sq. km, and state capital is Panaji, and the largest city is Vasco da Gama, the second most significant in Margao. As per Niti Aayog's 2013 report, the Total Fertility Rate is 1.4.

Out of the total population, the male population is 7,39140, and the female population is 719405. The real literacy rate is 88.70%. The people of Goa are around 1.81 lakhs between the age group of 18 to 23 years in which more than one lakh males with a majority against 79,000 females.

2. Analysis of Literature :

International Cooperative Alliance Report (2021) on young people and cooperation reported on different aspects of youth participation in Co-operatives. The five main facets explored the relationship: employment for youth, education, equality issues, youth engagement, and entrepreneurship. The report was based on 420 responses from young people from 20 countries. The report stressed the need for more attention of youth in co-operatives, for which it points the need to enhance knowledge about co-operatives among youth. Bouichou et al. (2021) investigated the intention of entrepreneurial activities in agricultural co-operatives among rural children. Fifty-four young Agriculturists were more interested in starting entrepreneurial activities than 76 young respondents who showed no interest. Being a rural community, much discrimination was made among youths based on their gender. This stopped young female respondents from taking the initiative in agricultural entrepreneurship. Mulema et al. (2021) examined the participation in agribusiness by youngsters along with key indicators that inform their perception of agribusiness. The data was collected through interviews, questionnaires and focus group discussions. It was found in the study that the majority of youth interviewed were engaged in agri-business. Lindsjö et al. (2020) explored the engagement of youngsters of Tanzania in Agricultural intensification. The study was empirical in which they used T-Test as a technique for data analysis and concluded that agricultural

intensification was extended to the production of rice by involving youth to a great extent. Still, the maize production-related operation was excluded from Youth involvement.

Dongre et al. (2020) studied the co-operatives concerning youth in Asia. The study was conceptual. It was revealed that the co-operative sector had the capability in meeting contemporary youth challenges, and the child has the potential to strengthen the Cooperative spirit. However, it was observed that study-related activities and legal hurdles prohibit college students from participating in In Campus Cooperative Programmes. Igbolekwu et al. (2019) assessed awareness and the willingness of youths to participate in agriculture among undergraduates in southwest Nigeria. The study was empirical. The questionnaires distributed to 200 respondents collected the much-needed data. The majority of respondents agreed on the necessity for youth engagement in Agri-related activities.

Christian, Hans and Gidi (2018) identified the nature of co-operative societies and their performance. The data was collected from a primary source through a questionnaire from 77 co-operatives. Using the data analysis technique of multiple regression, the size of a family and the size of the co-operative are significant contributors to collective performance. Eucharia (2018) examined the effect of co-operative societies in developing youth in the Dunukofia local government area of Anambra State, Nigeria. Data were collected from primary and secondary sources. The officers and the members of Co-operative societies were the primary sources of information. As the youth develops and enhances its skills, it exerts more impact on the co-operative activities.

Andhani (2017) analysed the significance of young farmers' role in dairy farming and co-operatives and evaluated the drivers and constraints that affect the participation of young farmers in dairy co-operatives. The study expressed that the existence of young farmers in Indonesia could help create a positive image for farming and co-operatives. The antecedents that affected the participation of young farmers include motivation from successful dairy co-operatives, economic factors, socio-cultural factors, and constraints, including age issues, lack of youth, lack of educational attainment, and lack of knowledge and skill. Anania & Kimaro (2016) analysed the factors hindering effective participation of youth in agricultural marketing co-operatives in Tanzania's Coffee industry. A case study technique was followed. It was divulged in the study that the involvement

of children in AMCOS was affected by some socio-cultural components, which included male biases in ownership of coffee, social inequality, generation gap, disinterest and insufficient co-operative education, services provided were limited by AMCOS, there was no proper management of production and distribution channels, in rural areas young ladies were engrossed due to household management and hardships of life.

Hartley and Johnson (2013) assessed the youth's co-operatives in Uganda and Lesotho with situated learning and human development theories. The study was conceptual. The findings resulted in an 'expanded learning space' provided by contemporary Co-operative and their channels to youth, despite differentiation in education, gender and co-operative type. Tshabalala (2013) examined the implementation and effectiveness of the collaborative model with specific attention to youth-owned co-operatives. The information was derived from interviews and questionnaires. The study accepts that majority of the respondents agree that the most significant challenge is financial and technical support to the co-operatives. They recognised that employment could be created through establishing a small scale, which drives development and thus results in poverty reduction. McIntosh et al. (2001) explored the elements predicting adolescent participation in co-operative activities, which may help them participate in community activities in later life. Primary data was gathered through questionnaires and surveys, and secondary data was assembled from the journals. The findings disclosed that subjective challenge experience is essential for sustaining a commitment to co-operative activities regardless of activities.

3. Research Gap :

There is vast literature on youth engagement and youth involvement in co-operative movement at the International level. Even at the national level in India, many studies are conducted on youth participation in co-operatives. Though Goa is the smallest state with a high literacy rate, the studies on youth participation in co-operatives are less and limited to the overall operations of the co-operatives. This gap needs to be recognised and filled. Thus this study.

4. Statement of the Research Problem :

Co-operatives are gaining importance in worldwide development. Although, it was noticed that Cooperation and Co-operatives are mostly neglected and are given most the minor priority as the vital participant in economic development. Even at the educational level, the students are not given any special training in co-operatives. The young generation either is unaware

of the concept of cooperation or has a wrong perception of looking at the co-operatives. The outlook towards participation in co-operatives is also disheartening. Thus, it is necessary to create awareness among youth, creating a clear perception and willingness to participate in co-operatives. The study is a strive in this direction.

5. Research Questions :

- a. What is the level of awareness among the youth in Goa about co-operatives?
- b. What is the perception of youth towards co-operatives about their awareness level?
- c. Does the perception of youth towards co-operatives differ across gender?
- d. Whether the young generation is willing to participate in co-operatives? Are they aware of the challenges and opportunities associated with Co-operatives?

6. Objectives of the study :

This paper aims to assess the Awareness, Perception and Participation of Youth in the functioning of co-operatives.

- A. To assess the degree to which the young generation is aware of the concept of co-operatives and its current scenario in the state of Goa.
- b. To determine the Youth perception of co-operatives in the state of Goa based on their level of awareness.
- c. To analyse the Youth perception of co-operatives in the state of Goa based on their gender.
- d. To understand the willingness of the young generation to participate in the co-operatives and the reasons behind it.

7. Meaning of the term “Youth” as taken in Paper :

No worldwide definition of youth exists. While some definitions describe youth as a stage in life, a transition from childhood to adulthood, most definitions are aged-based and refer to youth as persons within a particular age group. The UN, for instance, identifies youth as individuals between 15–24 years. In Tanzania, youth are defined as individuals between 15–35. So the youth considered in Goa is the young population belonging to the age of 18 to 25. Both inclusive.

8. Data Collections Method And Tools for Analysis. :

The study is primary, with the main focus on analysing the responses received from the respondents using SPSS and interpreting the data scientifically.

The secondary sources include articles from reputed journals, books, reports etc.

To collect primary data, the responses from a sample of young respondents, an exact 150 number was collected by administering a structured questionnaire and circulating it through social media with explicit instruction of “to be fulfilled by a person belonging to the age of 18 to 25 years. The questionnaire consisted of questions on awareness of cooperation concept and current scenario in Goa (10 questions), perception of youth towards co-operatives (10 statements) and willingness to participate and challenges in the way of participation of youth in co-operatives (12 words). The Likert scale on the point of five was used to collect the most accurate responses.

9. Analysis, Discussion And Findings :

9.1. Assessment of Degree to which the Young Generation is aware of Co-operatives in Goa.:

Table 1: Awareness of tThe Young Generation about Co-operatives

Gender	Awareness		Total
	Not Aware	Aware	
Male	54	14	68
Female	61	21	82
Total	115	35	150

To assess the degree of awareness about co-operatives among youth, a structured questionnaire asking ten different questions on the awareness level of youth was distributed, and responses were collected. The questionnaire included questions on the history of co-operatives, postgraduate status, the concept of cooperation, its formation, the Cooperative, act, and other general queries about the co-operative operation. The questions were generated to assess the knowledge about the co-operatives among youth. As the questions were multiple-choice questions with one correct answer and other incorrect answers, it was decided to give the grade as “AWARE” if the respondents gave a score of six and above as correct answers. Others scoring below six were termed as "UNAWARE”.

Out of the total responses, 115 respondents were ‘Unaware’ and did not know

much about Cooperation and Co-operative principles. In contrast, hardly 35 respondents could score above six and be termed 'Aware'. Not a single respondent was able to give all answers correct. Thus signifying a lack of awareness about co-operatives among youth in Goa.

Out of 68 male respondents, only 14 were aware and knew co-operatives. At the same time, only 21(82) could secure points above six among the female population.

The term youth included all young populations aged 18 to 25, and the questionnaires were distributed through social media. The data collected also included information based on their occupation with some employed (11); unemployed (11), and student (128) population; it was found that the degree of awareness about co-operatives is more among employed (36%) than unemployed (18%) and student (22%) population.

9.2 Determination of the Youth Perception on Co-operatives in the state of Goa :

Ho There is no significant difference between Youth perception of co-operatives concerning the level of awareness.

To determine the youth perception about co-operatives, the researchers included ten questions on Perception in the administered questionnaire. The question was related to the youth's opinion on how they see a Cooperative. The responses collected were then compared with the level of awareness. The questionnaire was administered to 150 respondents. The statements were tested on a five-point Likert scale with a score of 1 as strongly agree and five as strongly disagree. These statements were then compared with their level of awareness to determine their perception based on their level of understanding.

Table 2: Awareness of Young Generation about Cooperation.

Occupation	Awareness		Total
	Not Aware	Aware	
Employed	7	4	11
Unemployed	9	2	11
Students	99	29	128
Total	115	35	150

Table 3: Youth Perception on Co-operatives in Goa.

Statements on perception	Mean		Mean Difference	t statistics	P-value
	Aware	unaware			
Is Cooperative a stepping stone to enter politics	3.00	3.06	-.061	-.261	.795
Co-operatives help in the development of the Indian Economy	4.26	3.98	.275	1.742	.084
Co-operatives help in increasing the social status of their members	4.00	3.82	.183	.936	.351
Co-operatives help in increasing the economic status of their members	3.91	3.95	-.034	-.188	.851
Cooperatives serve the community/society	3.89	3.85	.034	.180	.857
Government influences Co-operative operations	3.63	3.57	.063	.339	.735
Co-operatives are formed for the development of a particular community	3.26	3.54	-.282	-1.285	.201
Co-operatives are Non-Profit Organisation formed for the benefit of the members in particular & society in general	3.66	3.47	.188	.831	.408
In Co-operative societies, Membership is open for all irrespective of Caste, Creed or Religion	4.34	4.05	.291	1.498	.136
Cooperative through its collective working provide solutions to the problems of weaker sections of societies	3.97	3.73	.241	1.210	.228

Source: Primary Data

It was observed that the perceived level of “respondents being aware” compared to that of “being unaware” does not differ significantly. Whether Aware or Unaware, most respondents have almost the same perception towards Cooperative. The test results are not considerably differing except at one statement where the statement is accepted may be because of a general

opinion than that of awareness. Thus we ‘Fail to reject the null hypothesis.

9.3. Analysis of the Gender Perception on Co-operatives in the State of Goa.

Ho There is no significant difference between youth perception of co-operatives concerning gender.

Table 4. Results of independent sample T-Test using SPSS 20

Statements on perception	Mean		Mean difference	t statistics	P-value
	Male	Female			
Is Cooperative a stepping stone to enter politics	3.04	3.05	-.005	-0.23	.981
Co-operatives help in the development of the Indian Economy	4.00	4.09	-.085	-.632	.528
Co-operatives help in increasing the social status of their members	3.82	3.89	-.067	-.402	.689
Co-operatives help in increasing the economic status of their members	3.79	4.06	-.267	-1.779	.267
Co-operatives serve the community/society	3.82	3.89	-.067	-.421	.674
Government influences Co-operative operations	3.57	3.59	-.012	-.075	.940
Co-operatives are formed for the development of a particular community	3.37	3.56	-.193	-1.035	.302
Co-operatives are Non-Profit Organisation formed for the benefit of the members in particular & society in general	3.37	3.63	-.266	-1.395	.165
In Co-operative societies, Membership is open for all irrespective of Caste, Creed or Religion	3.91	4.29	-.381	-2.335	.021
Cooperative through its collective working provide a solution to the problems of weaker sections of societies	3.72	3.84	-.121	-.712	.478

(Source: Primary Data)

The researchers compared the same data collected on Youth Perception based on Gender and concluded that there is no difference in Perception based on Gender. Whether male or female, both have the same perception towards co-operatives. The P values are not significant at 10 % confidence, and thus null hypothesis stands accepted.

9.4. Determination of the Willingness of the Young Generation to participate in the Co-operatives And the reasons behind it.

Before concluding on the reasons for participating in co-operatives, the researchers asked the respondents about their willingness to participate. Out of 150 respondents, 101 responded 'Yes', saying they wanted to join, whereas the balance 49 said 'No' and were unwilling to participate.

The researchers further queried them on their reasons for being willing to participate and not willing to participate by giving them six expected benefits of participating and six challenges/ barriers to participating. Further analysis explains this.

Table No. 5: Willingness to participation of youth in Co-operatives is lacking because of the following factors

Factors	SD	D	N	A	SA	Mean	S.D
Lack of Awareness about the co-operative model	22	16	33	55	24	3.29	1.276
Resistance from old members	12	29	59	34	16	3.09	1.080
Lack of flexibility & Adaptability in co-operative structure to include youth	12	23	53	46	16	3.21	1.080
Too much government intervention & corruption	15	20	63	32	20	3.15	1.126
Not suited to career-oriented & ambitious youth due to its non-profitable nature	13	29	56	31	21	3.12	1.141
The economic status of youth	14	21	61	36	18	3.15	1.104

Source: Primary Data

To know the reasons behind not participating in a co-operative society, a set of questions which contained six barriers/challenges were given through a questionnaire using the Likert Scale in which the degree was from "Strongly Disagree", "Disagree", "Neutral", "Agree" and "Strongly agree".

To know the barriers to participating in the co-operatives, there should be proper knowledge, which was found sadly lacking in the given sample. The above frequency table shows that maximum (55) respondents agree that youth participation is lacking because of a lack of awareness about the co-operative model. For the remaining Five questions, namely resistance from old members, lack of flexibility in a harmonious society, not suited for career-oriented & ambitious youth due to its non-profitable nature, that there is too much government intervention in co-operative organisation and weak economic status of the child got the highest responses in the form of Neutral or 'Cannot say.

As was also found in the conclusion of the first objective, youth's awareness level is not high in the state of Goa; this result supports that. The young people are not participating for various reasons, but the main reason is 'Not Aware' of the co-operative model.

Mean shows the average factors that let youth stop joining co-operatives. The higher mean shows the most vital element that youth think hinders them from joining a cooperative society. The analysis shows that the highest mean is 3.29, which states that they don't want to participate in Co-operative society due to a lack of awareness about the co-operative model. The standard deviation shows the variances in the factors that hinder youth participation in Co-operatives. Higher Standard delivers higher conflicts.

To know the reasons behind the willingness to participate in a co-operative society, a set of questions containing six benefits were given through a questionnaire using the Likert Scale in which the degree was from "Strongly Disagree", "Disagree", "Neutral", "Agree" and "Strongly agree".

The above frequency table shows that most respondents are aware of the benefits given by the co-operatives though they do not have the proper knowledge of the co-operative model. 'Strongly Agree' is the most favoured option for all the benefits suggested for participating in Co-operatives. The young population is ready to join in the co-operative movement if given a chance.

Table No.6 Willingness to participation of youth in Co-operatives is because of the following factors.

Factors	SD	D	N	A	SA	Mean	S.D
Employment	22	16	31	56	25	3.31	1.28
Increase in Democratic & participatory skills	13	17	35	64	21	3.42	1.13
Self Help	11	15	29	64	31	3.59	1.14
Sense of Responsibility	14	7	36	62	31	3.59	1.14
Educational & Training skills enhancement	11	14	35	56	34	3.59	1.15
Enhanced creativity, innovation & problem solving	12	10	41	51	30	3.59	1.15

Source: Primary Data

10. Conclusion And Suggestion :

Based on the survey conducted of 150 respondents, it is concluded that

- I. There Is No Difference In The Level of Awareness Based On Gender.
- ii. There Is A Slight Difference In The Level of Awareness Based On Occupation. Those Working And Employed Are Slightly More Aware of the Cooperative Movement Than Students And Unemployed.
- iii. The Perception of the Youth About Co-operatives In Goa Is Almost The Same Irrespective of Gender And Awareness.
- iv. Though The Young Population Is Willing To Participate In The Co-operative World, It Lacks Various Reasons, The Central Being Lack of Awareness About The Unified Model.

The researchers strongly feel that the young population is the backbone of any economy. They should be given proper training to participate in various areas needed to develop a country. India being a developing country with many requirements for Collective working and united efforts, the Co-operatives could be the best solution. The co-operative has always worked for all and the mutual benefit of the members and community.

The youth in Goa require special training courses to create awareness about Co-operative working. All the respondents were educated young population,

thus signifying that absence of Cooperation as a compulsory subject in the curriculum. To create awareness, besides having awareness programmes and training sessions, it will be advisable to include Cooperative Education in the system.

If we need the entrepreneurs in the field of co-operative, the young population needs to be targeted before their talents get channelised into other areas. So 'Catch them Young' should be the motto.

Co-operative Awareness at a young age will help the youth participate in Co-operatives.

11. Limitation And Scope for further Study :

The study is limited to the state of Goa and the young generation belonging to the age group of 18 to 25 years. This was because the college students studying at an undergraduate and p were targeted as the sample respondents. However, further study could be undertaken by taking a larger sample size and increasing the age group. Further, the study could be continued by including the type of occupation and the income level of the respondents.

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Youth Participation in Kerala Cooperatives-An Exploratory Study

Dr. G.Veerakumaran *, Dr. E. Vinaikumar *

Abstract :

The cooperative movement in Kerala is unique and highly developed. Kerala has cooperatives to serve the people from cradle to coffin. The objectives of the Kerala cooperative policy indicate the need for attracting the youth to use the cooperatives for meeting their requirements to appreciate the principles and values of cooperatives as an enterprise. The objectives of this paper are to study the level of youth participation in the cooperatives, explore the reasons for poor participation of youth in cooperatives and suggest measures to encourage youth participation in cooperatives. Though 23.1 per cent of people are of the age between 20 and 34, their participation in Kerala Cooperatives was abysmally low and needs the immediate intervention of the government and cooperators. The major reasons for non-participation are manifold and include the neglect of the primary sector by the government, poor social status of farmers, occupational migration among the youth, job opportunities for youth in the industrial and service sectors, poor image of cooperatives and so on. The authors found four aspects as the most important strategies to attract youth participation in Kerala cooperatives namely use of technology, exploring market potential for the benefit of primary producers, transparent cooperative governance, and social transformation to ensure better social status to the farmers on par with other vocation. The authors believe that these measures may improve youth participation in the existing cooperatives. As the government of Kerala has launched a new initiative to start twenty-seven youth cooperatives, they may attract educated and skilled youth, provided they carry out sustainable business and generate adequate employment. The government and development interventionists may also promote platform cooperatives for the gig workers. Otherwise, cooperatives

* Professor and HOD of Cooperative Management, College of Cooperation, Banking and Management, Kerala Agricultural University, KAU

** Former Associate Dean, College of Cooperation, Banking and Management, Kerala Agricultural University, KAU

will be an organisation of senior citizens and will lose their importance in the long run.

Keywords:

Youth, Cooperative, Participation, technology, governance

Background And Justification :

The cooperative movement in Kerala is unique and highly developed. Kerala has cooperatives to serve the people from cradle to coffin. The strong short-term cooperative credit structure recently witnessed a delayering of middle-level district cooperative banks with one exception. Though the demand for investment credit in agriculture has come down, long term cooperative credit structure still operates as two-tier. Kerala has a strong network of consumer cooperatives, marketing cooperatives, rubber marketing cooperatives, housing cooperatives, hospital cooperatives, SC/ST cooperatives, women cooperatives, labour contract cooperatives, tourism cooperatives, handloom cooperatives, coir cooperatives, milk cooperatives, and fisheries cooperatives. Kerala has also experimented with textile cooperatives, cashew workers cooperatives, handicrafts cooperatives, industrial cooperatives, coconut farmers' cooperatives, engineering and technology cooperatives, insurance cooperatives, NRI welfare cooperatives, poultry cooperatives, farming cooperatives, and so on. 23080 cooperatives are on the roll both under the Registrar of co-operative societies and other Functional Registrars (dairy, handloom, fisheries, industries, and coir). Kerala is also unique for its membership/customer coverage and one will rarely find a person without the membership/linkage with a cooperative. However, cooperatives are currently facing many challenges like the absence of financial prudence, vested interests, lack of professionalism, and above all lack of participation of youth.

However, the objectives of the Kerala cooperative policy indicate the need for attracting the youth to use the cooperatives for meeting their requirements to appreciate the principles and values of cooperatives as an enterprise. Further, the policy intends to equip the cooperatives to meet the demands of youth. Youth participation in cooperatives can either be in the existing cooperatives or establishing new cooperatives for youth. The government of Kerala is determined to promote the participation of youth in cooperatives by adopting both options.

During the financial year 2021-22, the government of Kerala has taken steps to start twenty-seven youth cooperative societies. These new ventures are to create employment and income generation opportunities for educated persons between the ages of 18 and 45. The government expects that the youth cooperatives will contribute to the all-around growth of the region. However, as and when a member crosses the age of 45 he/she ceases to be a member so that the youthful character of the cooperatives are maintained. Accordingly, the first Youth entrepreneurial cooperative society was registered at Kottayam to concentrate on infrastructure construction to create maximum employment opportunities by coordinating educated and skilled youth. Such societies will have Rs.1.75 crore as share capital with the lion's share by the state government to strengthen their borrowing power and operate with high-end projects. Further, the government promotes cooperatives in the fisheries sector to train youth in deep-water fishing. Kerala government is also encouraging cooperatives of non-resident Keralites to generate jobs for educated youth.

Against this backdrop, the authors of this paper propose to explore the possibilities of attracting youth in Kerala cooperatives.

Objectives And Methodology :

The objectives of this paper are to:

- To study the level of youth participation in the cooperatives
- To explore the reasons for poor participation of youth in cooperatives and
- To suggest measures to encourage youth participation in cooperatives.

The paper is an exploratory one and heavily relied on secondary sources. Research works carried out in the parent institution were used to justify the first objective. Relevant and pertinent reviews were carried out to draft the second and third objectives. Moreover, the authors had a discussion with some selected opinion leaders both from the elected as well as paid employees' representatives of the cooperative movement in Thrissur district to substantiate the claims. The outcome of the process is presented below in three headings.

Study level of youth participation in the Cooperatives :

The authors have taken 40 studies carried out in the College of cooperation, Banking and Management, Kerala Agricultural University from the years 2016 to 2021. The studies include Primary Agricultural Credit

Societies(PACS) or otherwise called Service Co-operative Banks, Fisherman Development and Welfare Co-operative Society, Agricultural and Rural Development Banks, Milk Producers Co-operative Societies, Chethu Thozhilali(Toddy Tappers) Multi-Purpose Co-operative Society, Labour Contract Co-operative Society, Workers Co-operative Society, Weavers' Co-operative societies, Consumer Co-operative Society, Marketing and Processing Co-operative Society, Hospital Co-operatives, Coir Co-operative Society, and employees Co-operative Society. Altogether 2424 member respondents were interviewed and of which 386 are youth(age below 35 years), which indicates only 15.92 per cent of total members. The appended table exhibits the study results. The demographic details of the state of Kerala indicate that the percentage of the youth population in the age-group 20-34 years was 23.1. Thus it can be concluded that the participation of youth in cooperatives is less and needs urgent intervention.

Reasons for poor participation of youth in Cooperatives :

The primary sector of the economy namely agriculture, animal husbandry, fisheries, collection of minor forest products by the tribes are facing severe problems. Agriculture is no more a profitable venture in Kerala and the new generation of the family of farmers have already moved away from farming and migrated to cities and other countries. Sub-division and fragmentation, non-viable farm holdings, low level of farm mechanisation, high labour cost, farmers suicides, absence of infrastructure such as roads and transport, problems related to storage, processing, and value addition, poor marketing facilities, distress sale during harvest, absence of price discovery mechanism and regulated markets affect agriculture in Kerala.

Animal husbandry for milk, meat, and egg is also facing problems of increasing cost of production, decreasing productivity, monsoon and climatic issues, lack of mechanization, poor use of online marketing, non-availability of quality inputs, slow diversification process, inadequate extension, regional imbalances, low price for farm produce, and food processing industries and so on. The demand and supply mismatch for meat in Kerala has not driven for more production due to the reasons listed above.

Fisheries sector both marine and inland fishermen suffer due to low income, low catch, overexploitation of marine resources, unsustainable harvesting, and also susceptibility to hazards related to climate change. With regards to the collection of minor forest products by the tribes, due to unrestricted collection, overuse of products and unscientific collection, and also rapid

deforestation for non-forest use, the natural availability of NTFP producing trees are less in number, and their regeneration in many forest areas has gone down. The number of productive trees is less in the forest due to which the overall production of NTFP has decreased whereas the demands have gone very high. Subject to further empirical studies the authors found the following reasons for the poor participation of youth in cooperatives.

1. All the above-discussed reasons and lack of government initiative to attract youth drove them to ignore the primary sector for their livelihood. Naturally, this phenomenon reflects in the membership pattern of the cooperatives.
2. Moreover, youth involved in the operations of the primary sector is looked upon and considered incompetent to carry out other intellectual works. This falsehood of the general public fails to assure the dignity of labour for them.
3. The longevity of the head of a family having landholding rights restricts the youths to join in a cooperative. They encourage and mould their wards to take up white-collar jobs.
4. Lack of government initiative to attract youths to the primary sector.
5. The government of Kerala over some time promoted quality higher education to the youths and they fly in search of employment elsewhere. Seeking higher education has gained momentum due to the liberal education loan given by both the commercial and cooperative banks of Kerala.
6. Due to the new economic policy, India witnessed the growth of industrial and service sectors and attracted youth in abundance.
7. Compared to the new generation service providers' cooperatives are still following conventional methods of service delivery. Most cooperative products are not innovative and market-friendly. Fintech companies are serving better than cooperatives. Moreover, youths are having wide options before them and at an affordable rate in the market.
8. High-level politicization of cooperative governance driveway the independent thinking youth from the cooperatives.
9. Youth are also not participating in cooperatives due to the losing credibility and image may be due to the failure and fraudulent practices of some cooperatives.
10. Above all the youths of Kerala don't feel the requirement for the cooperative.

Strategize to encourage youth participation in Kerala Cooperatives :

The authors found four aspects as the most important strategies to attract

youth participation in Kerala cooperatives namely technology, market, cooperative governance, and social transformation.

Technology: Industrial revolution 4.0 has brought many advancements in technology such as artificial intelligence, blockchain, the internet of things, 3 D printing, and machine learning, and so on. Commercial banks and fintech companies have quickly adopted and continue to upgrade the existing products and introduce new products whereas cooperatives are trailing far behind. The primary sector needs full-fledged mechanization for the commercialization of agriculture and to transform it as agribusiness rather than for subsistence living. Research scientists should evolve climate-resilient agricultural practices to absorb frequent drought and flood.

Market: The government of India has proposed doubling farmers' income through different ways and means. If the primary sector generates adequate income, youth will certainly join the cooperatives. Industrial cooperatives can also attract youth if they get a good return for their labour and price for their produces. The market is not farmer-friendly and highly exploitative even after 75 years of independence. Primary producers in a cooperative are not in a position to realize better prices in the market and the absence of a price discovery mechanism should be addressed by the governments. Cooperatives and other collectives should also work together to bring down the input cost and strive for value addition. Risk mitigation measures like insurance are not working well and the members of cooperatives are compensated poorly. Solving such issues will bring more youth under the cooperative fold.

Cooperative Governance: It is assumed that the cooperatives are managed democratically, but in reality, vested interests are dominating and ruining the true spirit of cooperation. The existing members of the cooperatives should educate the youth and enrol them in the cooperatives. The cooperatives should work as collective enterprises and promote self-employment and entrepreneurial culture among the youth. Cooperatives should religiously encourage professionalization both at the level of the board of directors of cooperatives and employees' level.

Social Transformation: Two thousand years before Tamil poet Thiruvalluvar said that 'They alone live who live by agriculture; all others lead a cringing, dependent life'. But the present-day society fails to recognize the farmers as socially respectable people. This mindset should change and the social

reformers should work for it. Once, the dignity of labour is restored for all jobs, youths will prefer to opt for farming and cooperatives. Cooperatives should be transparent in their operations so that their image can be protected and youths will join in such value-based organizations.

Conclusion :

Though 23.1 per cent of people are of the age between 20 and 34, their participation in Kerala Cooperatives was abysmally low and needs the immediate intervention of the government and cooperators. The major reasons for non-participation are manifold and include the neglect of the primary sector by the governments, poor social status of farmers, occupational migration among the youths, job opportunities for youths in the industrial and service sectors, poor image of cooperatives and so on. The authors found four aspects as the most important strategies to attract youth participation in Kerala cooperatives namely use of technology, exploring market potential for the benefit of primary producers, transparent cooperative governance, and social transformation to ensure better social status to the farmers on par with other vocation. The authors believe that these measures may improve youth participation in the existing cooperatives. As the state government of Kerala has launched a new initiative to start twenty-seven youth cooperatives, they may attract educated and skilled youth, provided they carry out sustainable business and generate adequate employment. The government and development interventionists may also promote platform cooperatives for the gig workers. Otherwise, cooperatives will be an organisation for senior citizens and will lose their importance in the long run.

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Appendix 1

Table 1 : Youth participation in the selected Kerala Co-operatives

Sl. No	Type of Co-operatives	Number of selected co-operatives	Total number of members	Surveyed members	Members below the age of 35	% of youth surveyed
1	Service Co-operative Banks	16	287067	830	141	16.1
2	Fisherman Development and Welfare Co-operative Society	1	3202	50	5	10.0
3	Agricultural and Rural Development Banks	5	126447	340	55	16.2
4	Milk Producers Co-operative Societies	7	7220	390	24	6.1
5	ChethuThozhilali Multi-Purpose Co-operative Society	1	5236	30	4	13.3
6	Labour Contract Co-operative Society	1	276	60	0	0.0
7	Weavers' Co-operative societies	2	1868	154	6	3.9
8	Consumer Co-operative Society	1	2497	90	32	35.6
9	Marketing and Processing Co-operative Society	1	437	30	1	3.3
10	Hospital Co-operatives	1	2353	60	14	23.3
11	Coir Vyavasaya Co-operative Society	1	1167	60	8	13.3
12	Employees Co-operative Society	3	14154	330	96	29.1
	TOTAL	40	451924	2424	386	15.9

Note: Compiled By Miss. Maria Poulose T, M.sc. Cooperation And Banking Student, KAU.

Strengthening Cooperatives: Farm and Non-farm activities in Dindigul Central Cooperative Bank

B. Punniyan *, Dr. C. Pitchai **

Abstract :

In most of the countries of the world, an attempt has been made to develop institutional credit to support agriculture on a cooperative basis. And over a period, the cooperatives have been considered as one of the best agencies to provide credit to the farmers. Cooperative banks with a three-tier federal structure provide short and medium-term loans and concentrate mainly on the agricultural sector. The Central Cooperative Banks (CCBs) occupies a crucial position in the pyramidal structure of agricultural cooperative credit structure in India. They form the backbone of this structure and provide the vital link between the Primary Agricultural Cooperative Credit Societies (PACS) and the State Cooperative Banks (SCBs). Objectives: to study the Business Performance of the Dindigul central Cooperative Bank and to understand the Farm and Nonfarm activities in Dindigul Central Cooperative Bank. Methodological and Conceptual approach used in primary sources will be taken for the study. Primary data were collected from the DCCB. The collected data were analysed with appropriate statistical tools. The study period to increase the efficiency of the bank and to serve the rural agricultural people in a better perspective the cooperative banking should be solid and efficient to face the challenges in the competitive environment, and it needs to take necessary measures.

Key Words :

District Central Cooperative Bank, Farm And Nonfarmcredit, Cooperatives, Performance.

* Research Scholar, Dept of Cooperation, the Gandhigram Rural Institute (DTBU), Gandhigram.

** Professor, Dept of Cooperation, the Gandhigram Rural Institute (DTBU), Gandhigram.

Introduction :

India's cooperative banking structure consists of two main segments, viz., agricultural and non-agricultural credit. There are two separate structures in the case of agricultural credit one for short and medium term credit and the other for long term credit. The cooperative credit structure for short and medium terms is a three tier, one with primary agricultural credit societies at the base level, the central cooperative bank at the district level and state cooperative bank at the apex level. Over and above these institutions, grain banks are actively functioning as primary societies in certain states. Though the organization of central and state cooperative banks was mainly for the benefit of the agricultural credit sector, they serve non-agricultural societies too.

In India the short term cooperative banks are organized as a three tier structure:

Primary Agricultural Cooperative Credit Societies :

Primary Agricultural Cooperative Credit Societies (PACS) are the foundation of the cooperative credit structure and form the largest number of cooperative institutions in India. Most of these societies have been organized mainly to provide credit facilities and to inculcate the habit of thrift and economy among their members. In India, PACS are passing through an era of crisis. Increasing incidence of non-viability is one of the major setbacks. PACS have made little progress in attracting deposits. In majority of the cases, the deposits were collected through book adjustments by carving certain portion of loan amount. The repaying capacity of the PACS has been dwindled considerably, resulting mounted over dues in the loan outstanding against members. Along with the increasing volume of business the number of PACS running into loss and the amount of loss has increased considerably over the years.

District Central Cooperative Banks :

District Central Cooperative Banks (DCCBs) occupy the middle level position in the three tier cooperative credit structure of the country. In the beginning of the formation of PACSs, they could not function effectively without gaining financial support from an outside agency. The formation of DCCBs was thus a felt need for mutual help. The Cooperative Societies Act of 1912 permitted the registration of DCCBs. Even before the enactment of this Act, some DCCBs were established to cater to the needs of primary societies. In 1906, forerunner of the first DCCB was established as a primary society in Uttar Pradesh. At Ajmer in Rajasthan the first DCCB was

established in 1910. But the first full-fledged DCCB as per the provisions of the Act of 1912 was started in Jabalpur District of the Central Province. the DCCBs are formed mainly with the objective of meeting the credit requirements of member societies. As an institution for helping the societies in times of need, they finance agricultural credit societies for production purposes, marketing societies for marketing operations, industrial societies for supply operations and other societies for working expenses. Generally, the area of operation of a DCCB is limited to one district.

State Cooperative Bank :

The State Cooperative Bank (SCB) or the Apex Bank occupies a crucial position in the three tier cooperative credit structure in India. These Apex Bank or State Cooperative Banks are formed by federating DCCBs in each state. The Apex Banks assume a key-position in the cooperative credit structure because the financial assistance from RBI and the National Bank for Agricultural.

Objectives of the Study :

- ❖ To study the Business Performance of the Dindigul Central Cooperative Bank.
- ❖ To analyze the Farm activities in Dindigul Central Cooperative Bank
- ❖ To understand the Nonfarm activities in Dindigul Central Cooperative Bank

Methodology :

The present study is based mainly on primary data. The data was collected by personally visiting the bank officials. The personal interview technique is used to collect information and discuss with officers and personnel of cooperative banks to know the performance of cooperative banks. In order to get the information with regard to the performance of District Central Cooperative Bank a structured interview was employed with Bank Managers & Loan officers. The collected data were analysed with appropriate statistical tools.

District Central Cooperative Banks In Tamil Nadu :

District Cooperative Central Bank is popularly known as DCC Bank. It is a cooperative banking network established in India to serve cooperatives and rural areas. It was established to provide banking to rural hinterland

for agriculture sector with the branches primarily established at rural and semi-urban areas. The Banking model consists of a district central bank for each District in every state of India known with a name as a respective District Central Cooperative Bank. The members and their elected directors who represent a multitude of professional cooperative bodies like Milk Unions, Urban cooperatives, rural cooperatives, agricultural and non-agricultural cooperatives and various others, in turn would elect the bank's President. These banks are collectively represented by a State Apex Central Cooperative bank for each state and it acts as the ultimate bank and apex body for the DCCs under each state.

Business Profile of Dindigul Central Cooperative Bank :

The Dindigul District Central Cooperative Bank (DCCB) is registered under the Tamilnadu Cooperative Societies Act 1983 on 1st August 1989 As a Central Society, This bank was bifurcated from Madurai District Central Cooperative bank. The reserve bank of India granted license to operate banking business activities. The area of operating the bank is extended to the whole of Dindigul district .the bank is having 30 branches located throughout the district from 23rd September 1994 onwards the DCCB is functioning in its new building located in kootruraunagar, Dindigul The bank has been registered as a society with limited liability making members to be liable only up to their contribution on the paid up share capital on the liquidation and the bank.

Purpose of the Bank :

the DCCB is established mainly for the purpose of financing and acting as federation of the primary level cooperative banks / societies. the DCCB is regulating and controlling the primary societies or bank as per the Act and notification of the RBI and also the department of cooperation of the state government. DCCB not only supports financially, these member organizations, but also provide facilities like managerial assistance and other promotional activities.

Objectives of the DCCB:

The objectives of the DCCB, as envisaged it is by-law are as follows:

- To provide a safe for the investment of the resources of primary societies.
- To develop and extend banking facilities in rural areas.
- To develop the cooperative movement in the district.

- Performs miscellaneous banking functions.
- Invests funds with Government/RBI/NABARD.
- Acting as leader of cooperative agent at Dindigul level.

Functions of the DCCB::

The following are the major functions of DCCB. It provides short-term, medium and long term loans to the primary level organizations. The term loans are provided on the basis of their needs and requirements.

- ✓ As an organization, which is established in the state, it has to be liaison with the government, acting as agent between the de government/state level cooperative federation and the primary level beneficiaries
- ✓ It is not only supporting financially, but in the administration also on their requirements, may be on the requirement selection, auditing etc.,
- ✓ It maintains close and continuous contact with PACS and provides leadership and guidance to them.
- ✓ It supervises and inspects the PACS.
- ✓ It provides a safe place for the investment of the resources of PACS

Membership of the DCCB:

In the early period, Central Cooperative banks were organized by individuals. Only after enactment of the Cooperative societies Act, 1912, Central Cooperative Banks began to have mixed membership, societies and the individuals, the central cooperative banks in Tamil Nadu have stopped admitting individuals as members and the process of eliminating individual membership is still continuing, being financing agencies at the district level, all type of primary societies, agricultural as well as non-agricultural working in their area are affiliated to them. There were 642 members at the end of the 2020-21.

Share Capital of the DCCB:

The share capital is one of the components of owned funds. The share capital collected from its members assumes importance as the share capital alone with the reserve funds decides the maximum borrowing power and thus the capital helps to strengthen the capital structure of the bank which is an essential condition for successful performance. For the financial year 2020-21 DCCB has a share capital of Rs. 6071 lakh.

Reserve fund of the DCCB:

It is the statutory obligation on part of the society to set aside 20% of the

profit towards reserve fund. The reserve fund is created mainly to fall back when the bank meets with unforeseen losses and also plough back whenever there is a capital need for the bank. For the financial year 2020-21 reserve fund of DCCB was Rs. 12152 lakh.

Deposits of the DCCB:

Mobilization of deposit is one of the main functions of banking business and an important source of working capital for the banks. Deposit mobilization is an indispensable function to increase the resources of DCCB to serve its members effectively. The bank is having various deposit schemes such as fixed, savings, and current deposits to meet the various requirements of the customers. For the financial year 2020-21 deposit position of DCCB was Rs. 1608 lakh.

Borrowing of the DCCB:

The borrowings constitute the vital source of working funds for the DCCBs. A DCCB generally supplements internal resources with borrowings from the higher level financing agencies such as SCB, NABARD, RBI, and State Government carrying on its lending programs. For the financial year 2020-21 borrowing position of DCCB was Rs. 50647 lakh.

Loans And Advances of the DCCB:

Loans means credit facility extended to the members for various purposes. The bank provides different types of short term loans to the members in order to enable them take-up micro-business and trade activities. For the financial year 2020-21 loans and advances of DCCB was Rs. 149021 lakh.

Profitability of the DCCB:

The working results of the bank shows that the bank is earning profit continuously during the study period. For the financial year 2020-21 profit position of DCCB was Rs. 521 lakh.

Farm activities in Dindigul Central Cooperative Bank:

In cooperative better farming society, the members do not cultivate their land jointly. Each member cultivates his own land. For instance; they purchase various agricultural inputs like seeds, fertilizers, insecticides, services of machinery etc. on cooperative basis. They sell the crops jointly.

A farm activity includes crop loan, seasonal agricultural, operations, marketing of crops, others including supply & distribution, minor irrigation, animal husbandry and allied agricultural activities growing crops, fruits, vegetables and rearing of livestock. In the world, 50 per cent of persons are engaged in agricultural activity. Two-thirds of India's population is still dependent on agriculture. Favourable topography of soil and climate are vital for agricultural activity.

Table: 1 Farm Lending Details of the Dindigul CCB (Rs. In Lakhs)

Year	Short Term Agricultural Loans	Medium Term Agricultural Loans	Total	Growth Rate
2016-17	21296	665	21961	-
2017-18	31559	981	32540	48.17
2018-19	41861	1472	43333	33.16
2019-20	49768	2333	52101	20.23
2020-21	60070	3194	63264	21.42

Source: Annual Audit Report of the DCCB.

The above table shows the farm lending details of the Dindigul Central Cooperative bank. The bank lending both short term and medium term loans to the farmer members through PACSs. During the study period the growth rate shows the increasing trend. In 2020-21 the bank issued Rs.60,070 lakh of short term loans and Rs.3194 lakh of medium term loans to the member Primary Agricultural Cooperative Credit Societies.

Non-Farm activities in Dindigul Central Cooperative Bank :

Non-farming activities are those which do not include farming as a source of income. These include construction, manufacturing, transporting, communication, trade and mining among others. These are as efficient as farming and provide livelihood to a large population in rural parts of the country.

Non-farm sector loans (NFS) including jewel loan, housing loans, loans to professional and NFS others such as Self-help groups (SHG), value chain activities, such as agro processing, transport, distribution, marketing, and retail, as well as tourism, manufacturing, construction and mining, plus self-employment activities (handicrafts, bakeries, mechanics, kiosks, and so on). Table 2, shows the Non-farm lending details of the Dindigul Central Cooperative bank. The bank lending both short term and medium term

loans to the farmer members through PACSs. During the study period the growth rate shows the increasing trend. In 2020-21 the bank issued Rs.25,151 lakh of short term loans and Rs.20,153 lakh of medium term loans to the member Primary Agricultural Cooperative Credit Societies.

Table 2 : Non-Farm Lending Details of the Dindigul CCB (Rs. in Lakhs)

Year	Short Term Non-Agricultural Loans	Medium Term Non-Agricultural Loans	Total	Growth Rate
2016-17	18023	24247	42270	-
2017-18	18339	23839	42178	-0.21
2018-19	19856	23824	43680	3.56
2019-20	23634	20253	43887	0.47
2020-21	25151	20153	45304	3.22

Source: Annual Audit Report of the DCCB.

Conclusion :

The study on the farm and non-farm activities of the DCCBs shows an improvement over a period. Each indicator selected for the study excludes the number of branches in that period. From 2016 to 2021, share capital, reserve funds, deposits, working capital, investments increased by more than cent per cent during this period. There is a concern that numbers of members, loans, and advances have undergone modest growth. Whereas, outstanding of loans and overdue have increased, that is a sign of poor performance. Therefore, DCCBs benefit most from non-agricultural loans.

DCCB is the basic unit, and deals with Farm and Non-farm members for meeting their financial requirements. It provides short-term and medium-term loans to members which help to meet their financial needs. But many economic problems are cropping up in the process of development of cooperative system viz., lack of adequate and trained staff, lack of required funds, poor industrial relations climate, lack of professional management, political interference, change in economic conditions, over dues, and limited source of income of the farmers and so on. Further, this bank is unable to provide adequate finance to the members, and general opinion is that it is making delay in the sanctioning of loans.

Therefore, to increase the efficiency of the bank and to serve the rural agricultural people in a better perspective, the cooperative banking should be solid and efficient to face the challenges in the competitive environment, and it needs to take necessary measures.

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06

Strengthening Cooperatives: learning's of Rural Transformation in Gujarat

Narayan Baser*, Akash Patel*

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Abstract :

Rural transformation is one of the key social and economic changes that lead to development of rural communities in the global context of overall growth of any country. Though the rural population in Gujarat fell to 57.4% in 2011 from 62.6% in 2001 census, still half of the population belongs to rural Gujarat and hence the assessment of rural transformation is required to judge the regional disparities to ensure more integrated urban–rural development pattern. The objective of this paper is to assess the rural transformation in Gujarat via multidimensional indicators using indices suggested by Long et al. (2011) and Wang, Liu, Li, Y. and Li, T. (2016). These indices help to analyze the key socio-economic issues and challenges faced by the rural communities of Gujarat state. The growth story of Gujarat is debated and discussed as Gujarat Growth Model in all leading media platforms. With only 6 per cent of India's land mass and barely 5 per cent of its population, Gujarat has managed to account for 7.6 per cent of the country's GDP and 22 per cent of its exports. Gujarat Growth Model became more popular during 2002-03 to 2011-12 when Gujarat has reported quantum jump in its growth rate which is largely attributed to the chief minister Narendra Modi's innovative interpretation of neoliberal policies. Can the benefits of growth percolate down to improve the lives of rural population? The major chunk of population in rural areas

*Associate Professor, School of Petroleum Management, PanditDeendayal Energy University, Raisan, Gandhinagar , Gujarat, India

considered as the soul of the country are also most neglected and ignored by the government. Rural population faced problems with regard to their education, health, livelihood, basic amenities, infrastructure, governance and many more. This paper is an attempt to analyze broadly the process of rural transformation via multidimensional assessment framework that focuses on rural development, rural transformation and rural-urban coordination with the help of district level micro data from Gujarat.

Keywords :

Gujarat, rural development, rural transformation, urban–rural coordination, regional disparity, rural economy

Introduction :

Rural transformation and its vigorous contribution to socio-economic development has been recognized by various researchers from time to time (Wang, Khan, & Zhang, 2013; Long,Zou, Pykett, & Li, 2011). As the name suggests, it involves shifting of rural environment and indulging the features of urban environment into it. This favorably impacts rural people’s livelihood & standard of living to a great extent. As their income increases, their food habit as well as their nutritional level change. This raises their productivity in the economy which leads to further growth in their living standards. The transformation process also involves awareness about basic necessities (such as basic education level, nutritional intake, and health related knowledge etc.) which is considered prerequisite for their capability development. Therefore it acts as a foundation stone for overall socio economic development of a developing economy, where massive population living in rural areas. Different researchers defined rural transformation in different ways. Rural transformation is a wide-ranging multi-dimensional process which includes changes in complete rural setup that can be economic, social, political, and institutional which brings positive variations in rural extent. Mehta (2018) in her book “Rural transformation in the post liberalization period in Gujarat” analyzed the process of rural transformation in Gujarat for the post liberalization period where she conceptualized rural transformation and analyzed how structural transformation took place in terms of non-farm occupational diversification.

As per details from Census 2011, Gujarat has population of 6.04 Crores, an increase from figure of 5.07 Crore in 2001 census. Out of the total population

of Gujarat state, around 57.40 percent live in the villages of rural areas. Child population forms 13.91 percent of total rural population in Gujarat. In rural regions of Gujarat state, female sex ratio per 1000 males is 949. Gujarat has shown very faster growth in past two decades. Rainfall is always uncertain here but still Gujarat is leading in agriculture even without much of government support like Punjab and Haryana. Gujarat's agricultural transformation came via the market route. Cash crops such as cotton, oilseeds and tobacco dominated the farm growth story. A milk revolution and large scale exports of fish accompanied the growth in horticulture and sharp increase in agricultural productivity. Rural Gujarat has also contributed lot in the said growth story of Gujarat. The growth story of Gujarat is debated and discussed as Gujarat Growth Model in all leading media platforms. With only 6 per cent of India's land mass and barely 5 per cent of its population, Gujarat has managed to account for 7.6 per cent of the country's GDP and 22 per cent of its exports. Its annual Gross State Domestic Product (GSDP) growth from 2001 to 2013 (growth has slowed down since) averaged nearly 10 per cent, which is faster than that of India. This is an extraordinary accomplishment. Between 1980 and 2013, Gujarat grew at an average rate of 5.1 per cent. Gujarat Growth Model became more popular during 2002-03 to 20011-12 when Gujarat has reported quantum jump in its growth rate which is largely attributed to the then chief minister Narendra Modi's innovative interpretation of neoliberal policies.

Review of Literature :

Rural transformation is a wide-ranging multi-dimensional process which includes changes in complete rural setup that can be economic, social, political, and institutional which brings positive variations in rural extent. Different researchers defined rural transformation in different ways. Ohlan (2016) have proclaimed that, rural transformation is a kind of development that provides more improved living conditions and living security. It provides more to the backward people of rural society if they wanted or needed. "Rural transformation is a proactive process of change and it brings development of rural communities in the context of national and global social and economic changes" (Wang, et al, 2013 and Long, et el, 2011). It involves passing of some culture of urban environments into rural favorably to influence the standard of living and livelihoods of rural population. Majority of the literature admit that the rural transformation is a more dynamic concept than rural development as it embodies "a transformation in people's perspective on life" (Shaw, 2011). It is usually characterized by changes in, female literacy, gender ratio, employment structure, civic amenities, farm

income, crop selection pattern, agricultural intensity, labor productivity and major improvements in rural housing and economic and social conditions resulting from industrialization and urbanization (Kurien, 1980; Ravallion & Datt, 2002). Majumdar (2020) demarcated rural transformation as a multidimensional concept which is different from rural development. In general, it has been conceptualized as modernization, rural development, changes in economic structure, and the migration of the population from the farming sector to the non-farming sectors of the economy. Kurien (1980) focused on economic variables to analyze the rural transformation process of Tamil Nadu for the period 1950 to 1975, where he defined rural transformation is nothing but the changing structure of rural economy over time. Rao (2004) defined rural transformation as the specific period of time in rural society, within which the society practices higher degree of specialization, greater use of modern technologies and cultural practices and emergence of institutional infrastructures that permit exploitation of more resources, leading to the incorporation with urban economy. Freguin-Gresh S., White E. T., Losch B (2012) analyzed the process of rural transformation with the help of an in-depth analysis of the socio-economic development of rural generally agriculture based regions in Africa and Meso-America where rural structural program collected and analyzed about 8000 rural household surveys. The result of the program conveyed that, contrasting to the conventional wisdom, the liberalization of agriculture has not lead to substantial agricultural restructuring or to a rapid integration of farmers into the global economy. It is observed that non agriculture employment growth in rural sector is driven by distress (Abraham, 2009). Amani (2013) argued that, "Rural Transformation is a complex, synchronized process can be divided into four aspects of rural life i.e. economy, politics, administration and society." Rural transformation promotes the opportunity for interacting with the other aspects, and this will satisfy the developmental needs in rural areas. Berdegue & Proctor (2014) and Berdegue et al (2013) advocated that, "Rural transformation can be conceptualized as the complex and dynamic societal change, whereby the rural societies diminish the reliance on agriculture-based economy and tend to diversify their economy from an agriculture-based economy to manufacturing and service sectors, in order to acquire goods, services and ideas." Long et al. (2011) advocated that, "Rural Transformation and Rural Development are two sides of the same coin, which are referred to as Rural Transformation Development". They used three dimensional model of rural transformational development which is poised of rural development level, rural transformation level and urban rural coordination level. It is argued that rural transformation is similar to rural development for developing countries. Wang et al (2013)

revealed that rural transformation is the movement of agriculture or farm sector to the manufacturing sector and way forward to the service sector as a result of economic and technical advances over time. Guin (2018) said “Rural transformation means an integrated change in socio-economic and spatial dimension of a village”. He defined it as a multidimensional process of change in social, cultural, economic and spatial aspect of rural society. Ultimate aim of rural transformation should be rural development. Kopel (1988) believed that, rural transformation refers to essential changes in the composition of rural economic life and social organization-changes that are accompanying with greater complexity and more pervasive linkages with ‘non-rural’ economic and social life. It can be an evolution of the structure, composition, and functions of traditional social, political, and economic institutions. Wang, Khan, and Zhang (2013) analyzed various problems associated with rural transformation. They demarcated poverty as a rural concept in case of developing country where the poor are deprived of basic necessities. Benfica (2019) analyzed the trend and speed of rural transformation and the degree of inclusiveness across Latin America and Caribbean region where he highlighted the disparities across countries with regards to their structural and rural transformation. The process of rural transformation is still underway in most of the countries. It is found that rural transformation negatively affected poverty and inequality by the help of improved agricultural productivity. Kumar Ranjit et al (2014) investigate multiple literatures to understand various dimensions of rural transformation for selected eastern states of India. The study found that, agriculture sector plays a vital role in the process of sustainable and inclusive development in rural part of eastern states (Odisha, Bihar and Jharkhand).Majumdar (2020) examined various aspects of rural transformation in Indian context that experienced migration from the farming sector to non-farming sectors and the disaggregation of Indian economy. Thus, the literature is very extensive and covers all geography of world and focus is more on overall country or state level. In this paper, the research gap is addressed as measuring the pattern and extent of rural transformation at district level for Gujarat state only using multidimensional indicators using census 2001 and 2011 data along with NSSO data for the period under reference where Gujarat has witnessed an impressive economic growth.

Methodology:**Problem Statement:**

Gujarat Growth Model became more popular during 2002-03 to 20011-12 when Gujarat has reported quantum jump in its growth rate. Can the

benefits of growth percolate down to improve the lives of rural population? This rural transformation needs to be assessed from multidimensional framework with the help of various indicators at district level.

Objective of the Study:

To assess the rural transformation in Gujarat via multidimensional indicators like rural development index (RDI), rural transformation index (RTI) and urban–rural coordination index (URCI) to analyze the key socio-economic issues and challenges faced by the rural communities of Gujarat state.

Data Collection:

This study is based on secondary data collected from Census, NSSO, Land Use Statistics Reports, Directorate of Economics and Statistics, Department of Agriculture and Cooperation. Data covering the Census period 2001–11 for major district of Gujarat State are collected to assess multidimensional indices of rural transformation. The data on population, urbanization, literacy and gender ratio on urban–rural basis are taken from Population Census India, 2001, and 2011. The data on crop selection pattern, irrigation index and cropping intensity are taken from Land Use Statistics Reports, Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, New Delhi, India.

Data Analysis And Discussion:

The different district of Gujarat has performed with lots of variations on these indicators and that gives us insight about balanced regional development of Gujarat. These three broad indicators were analyzed with different sub-indicators.

District Level Rural Social Development Indicators :

Social development at rural level is the first aspect to assess the rural transformation. This broad indicator of rural social development was analyzed with the sub-indicators like literacy rate, gender ratio and female work participation. Table 1 summarized about District level Rural Social Development Indicators for various districts of Gujarat.

Table 1 District Level Rural Social Development Indicators

District	Rural Female literacy rate	Rural Gender Ratio	Rural Female Work Participation Rate
Kachchh	44.86%	926	8.20%
Banaskantha	40.70%	903	14.60%
Patan	48.92%	896	14.79%
Mahesana	64.34%	857	12.89%
Sabarkantha	53.51%	905	17.74%
Gandhinagar	62.89%	858	11.45%
Ahmadabad	50.96%	890	11.39%
Surendranagar	47.50%	905	15.54%
Rajkot	59.02%	869	15.00%
Jamnagar	54.96%	902	12.72%
Porbandar	52.79%	908	13.80%
Junagadh	59.20%	887	16.40%
Amreli	56.00%	890	16.06%
Bhavnagar	51.16%	905	14.72%
Anand	64.28%	881	12.07%
Kheda	62.88%	899	12.58%
Panchmahal	45.65%	937	18.58%
Dahod	36.02%	950	22.88%
Vadodara	62.98%	898	11.22%
Narmada	52.55%	945	21.91%
Bharuch	62.13%	937	12.86%
The Dangs	53.19%	967	27.08%
Navsari	68.71%	946	16.65%
Valsad	56.66%	947	16.97%
Surat	62.57%	934	15.82%
Gujarat	52.99%	914	15.56%

(Source: Compiled And Calculated By Authors From Census 2011)

Observation:

Literacy and level of education are basic indicators of the level of development achieved by any society. Literacy forms an important input

in empowerment of a woman enabling her to comprehend her social, political and cultural environment better and respond to it appropriately. Higher literacy rate leads to greater awareness. It also contributes in overall improvement of economic and social conditions of women. It acts as a catalyst for social development. Table 1 indicates that the overall rural female literacy rate of Gujarat state is 52.99%. At district level, spread is 36% to 69% for various districts. This shows that rural female literacy in Gujarat is still having a lot of variation with few districts doing extremely well in female education with more than 53% which is aggregate for Gujarat. South Gujarat has shown significant improvement in female literacy compared to other districts. In Central Gujarat, Anand and Vadodara has more than 60% of female literacy rate. Dahod is least performing with only 36% female literacy rate while Navsari has highest female literacy rate of 68.71%. Interestingly, Dang which is more of rural and tribal district has 53.19% of female literacy rate. Female literacy has direct impact on other two social development indicators namely gender ratio and female work participation rate at rural level. Gender ratio also known as sex ratio is the ratio of females to males in a population. Gujarat is also having unfavourable gender ratio of 914 females for 1000 males. A skewed gender ratio which is not in favour of women is a dangerous sign because it indicates a higher female foetal mortality rate. Mahesana district has a gender ratio of 857, whereas Dangs has a gender ratio of 967. Gender ratio of overall Gujarat is 914 and its 9 districts are above the 914 for gender ratio. These districts include Kachchh, Panchmahal, Dang and Dahod which are predominantly rural districts with high Gender ratio. The rural gender ratio of other districts with more urban orientation is not much encouraging. Mehsana and Gandhinagar have lowest rural gender ratio of 857 in the north region of Gujarat. Similarly the gender ratio in rural Saurashtra is also not up to the mark. There is a need for more awareness and education in these districts regarding girl child among the rural population.

One more indicator of rural social development is work participation of rural female population in various districts of Gujarat. The overall rural female work participation of Gujarat is 15.56% while the districts show the very wide range of 8% to 27%. Female work participation rate is a driver of growth. Hence, participation rate indicates the potential for a country to grow more rapidly. The rate of female labour force participation in Gujarat is just 16.5%. Considerable diversity in the female participation rates can be observed in various districts of Gujarat. Kachchh has lowest rural female work participation of 8.20% where the rural tribal district Dang has highest rate of 27%. Female work participation at rural level is most of the time

economic need of the household. Panchmahal and Dahod districts have also shown higher rural female work participation than overall Gujarat. Sabarkantha in north region has similar figures. South Gujarat districts like Navsari, Valsad and Surat has shown significant positive aspects on rural social development with all three indicators – female literacy, gender ratio and female work participation values of more than overall state. With the rising level of education among female populations, females have definitely contributed towards volunteer employment in main work force. Thus, the overall picture of rural social development in Gujarat is very progressive but much focused efforts are required in few districts of Gujarat so see better picture.

District Level Economic Development Indicators:

A district's ability to increase its prosperity is the function of many factors including its macroeconomic environment, microeconomic foundations for business and individual success and its social and environmental health. Based on literature review, the authors have selected Per Capita Food Crop Production, Productivity as Food Crop per Cultivator and Per Capita Monthly Expenditure as indicators of district level economic development. Table 2 summarizes the calculations of District level Economic Development Indicators.

Table 2 District Level Economic Development Indicators

District	Per capita Food Crop Production (Kg)	Productivity as Food Crop per Cultivator (Kg)	Per-capita Monthly Expenditure (INR)
Kachchh	101.99	2150.32	2258.29
Banaskantha	269.60	1932.21	1470.87
Patan	187.15	1995.02	1756.99
Mahesana	194.20	2206.76	1815.79
Sabarkantha	468.30	4067.61	1151.71
Gandhinagar	138.39	1962.24	2446.47
Ahmadabad	126.60	7722.69	2829.13
Surendranagar	183.14	2012.87	1708.62
Rajkot	237.98	3086.59	2552.25
Jamnagar	202.05	2256.30	1778.18

(Continued...)

Porbandar	260.30	2785.45	1590.78
Junagadh	676.74	5722.69	1960.85
Amreli	161.04	1311.23	1469.95
Bhavnagar	97.79	1414.38	1918.81
Anand	247.80	3605.70	1143.97
Kheda	359.26	3868.20	1011.50
Panchmahal	209.53	1473.43	1356.88
Dahod	176.39	1203.21	1074.00
Vadodara	191.25	5175.60	2078.07
Narmada	127.56	1338.29	1121.94
Bharuch	101.42	2214.40	2159.57
The Dangs	244.42	1018.71	1068.61
Navsari	192.98	2611.47	1868.66
Valsad	97.67	1391.45	2273.66
Surat	41.04	2453.14	2221.03
Gujarat	166.62	2121.51	1978.13

(Source: Compiled And Calculated By Authors From Census 2011 And NSSO)

Observation:

Table 2 shows per capita food crop production of 166.62 kg. for the state of Gujarat. Junagadh district's per capita food crop production was the highest (676 kg.) whereas the same was only 41 kg for Surat district. 16 districts were having per capita food crop production higher than Gujarat state whereas 9 districts' per capita food crop production was lower than that of Gujarat. The average production of food crop by the cultivators in Gujarat was 2121 kg. Food crop productivity was the highest in Ahmadabad district, but because of its more population per capita production was lower than other few districts. The level of irrigation might affect the productivity per cultivator. Out of 25, 14 districts were having productivity per cultivator higher than the Gujarat state. The table shows per capital monthly expenditure of Rs.1978 for the state of Gujarat. Ahmadabad district was having the highest per capita monthly expenditure (INR 28290) while people in Kheda district were spending the least with per capita monthly expenditure of INR 1011. Only in seven districts (Kachchh, Gandhinagar, Ahmadabad, Rajkot, Vadodara, Bharuch, Valsad and Surat) the per capita monthly expenditure of people was higher than the Gujarat state.

District Level Infrastructure Development Indicators:

Prior studies suggest percentage of households having electrification, percentage of households having water facility, percentage of households having latrine facility and irrigation index as the indicators of infrastructure development at district level in rural areas. Table 3 gives the summary of all these indicators' values for all selected districts of Gujarat.

Table 3 : District Level Infrastructure Development Indicators

District	% of households having Electrification	% of households having water facility	% of households having latrine facility within the premises	Irrigation Index
Kachchh	87.40	78.60	49.20	0.3412
Banaskantha	66.90	56.80	17.10	0.6795
Patan	79.70	83.80	35.90	0.5209
Mahesana	88.90	87.70	44.40	0.7500
Sabarkantha	90.90	55.90	31.10	0.7152
Gandhinagar	89.80	88.00	42.80	0.6373
Ahmadabad	92.10	73.40	32.90	0.5605
Surendranagar	85.50	60.60	20.80	0.5858
Rajkot	92.50	76.40	44.00	0.5647
Jamnagar	86.40	57.70	34.80	0.6756
Porbandar	90.30	44.90	39.10	0.3882
Junagadh	93.00	61.70	46.00	0.5357
Amreli	91.70	62.90	52.10	0.4180
Bhavnagar	89.40	61.70	32.10	0.4057
Anand	86.30	72.70	41.30	0.9485
Kheda	77.10	59.50	25.40	0.8131
Panchmahal	88.10	18.10	17.00	0.4278
Dahod	71.00	3.10	6.10	0.2797
Vadodara	83.20	51.30	28.50	0.8405
Narmada	82.30	27.80	16.00	0.3927
Bharuch	89.40	71.20	45.80	0.4967
The Dangs	58.70	14.70	25.30	0.3019
Navsari	88.30	35.40	44.50	0.7986
Valsad	86.70	17.30	27.60	0.6402
Surat	87.40	55.20	49.90	0.7518
Gujarat	85.00	55.80	33.00	0.5691

(Source: Compiled And Calculated By Authors From Census 2011)

Observation:

The census of 2011 shows that Gujarat was having 85% of households with electric connection, which was way above the national average. Except Dangs (58.70%), Banas Kantha (66.90%), Dahod (71%), Kheda (77.10%) and Patan (79.70%), all districts were having electrification of more than 80%. Sabar Kantha, Ahmedabad, Rajkot, Porbandar, Junagadh and Amreli districts were having electrification of more than 90% in the year 2011. So in terms of electrification in rural areas, Gujarat was and is doing better than other states in India. Jyotigram Yojana, an initiative of Government of Gujarat, helped a lot in ensuring 24 hour quality power supply availability to rural areas of the state. Only 55.80% of households had water facility as per 2011 census. There is vast variation in data about households having water facility among various districts of Gujarat. Gandhinagar (88%) and Mahesana (87.70%) topped the list, whereas Dahod had only 3.10% households with water facility. Districts in western part of Gujarat and Saurashtra region were having less percentage of households with water facility. Like water facility, in terms of toilet facility also Gujarat was facing problem of having less number of households with latrine. For health, hygiene and women's safety purpose, it is very much necessary that every household should have latrine facility. Out of 100 households, only 33 households had latrine facility. Dangs was having only 6% households with this facility. Irrigation affects the level of agricultural production. Irregular, uncertain and unevenly distributed rainfall make irrigation essential and indispensable for successful crop production. Irrigation index is the percentage ratio between irrigated cropped area to total cropped area. For Gujarat, the index showed that around 57% of the total cropped area was irrigated. The index varies among the various districts of the state.

Rural Transformation Level Assessment at District Level :

Table 4 represents the Indicators for Rural Transformation Level Assessment at District Level of Gujarat state. To assess the rural transformation, few important indicators are analyzed in terms of relative change in the indicator over a period of time. All six indicators were calculated and presented in table 4. The last three indicators i.e. change in food crop farmland index, rural consumption structure change and employment structure change are negative indicators representing lower the value, higher the rural transformation. Rests three are positive indicators representing higher the values, higher the rural transformation.

Table 4 Indicators for Rural Transformation Level Assessment at District Level

District	Urbanization Level Change	Rural Female literacy rate Change	Cropping intensity index change	Food Crop Farmland Index Change	Rural Consumption structure change rate	Employment Structure Change
Kachchh	0.1608	0.3068	0.0320	-0.3053	-0.2621	-0.0372
Banaskantha	0.2086	0.6344	-0.0713	0.5482	-0.2527	0.0526
Patan	0.0409	0.4383	0.0562	0.1675	-0.4909	0.0823
Mahesana	0.1228	0.2432	-0.0641	-0.1231	-0.1863	0.2222
Sabarkantha	0.5616	0.2682	0.0569	-0.1996	0.0829	0.0715
Gandhinagar	0.2325	0.2683	0.1798	-0.4001	-0.1908	0.2766
Ahmadabad	0.0651	0.3100	-0.2053	-0.0307	-0.1745	0.1851
Surendranagar	0.1212	0.4018	-0.2070	-0.6807	-0.2192	0.0601
Rajkot	0.2127	0.2503	0.6449	-0.2423	-0.2706	0.0960
Jamnagar	0.1953	0.3238	1.8695	-0.8148	-0.0041	-0.0046
Porbandar	0.0035	0.2788	0.4557	-0.3176	0.3299	0.0353
Junagadh	0.2931	0.3638	-0.0300	0.4062	-0.1885	0.0891
Amreli	0.1445	0.2464	0.1286	-0.4526	0.2068	0.1072
Bhavnagar	0.1043	0.3929	0.2969	-0.7251	-0.2364	0.2454
Anand	0.1167	0.3085	0.3941	-0.1553	0.1583	0.1416
Kheda	0.1417	0.4165	0.3410	0.8998	0.2404	0.1824
Panchmahal	0.3551	0.3680	-0.1619	1.2695	-0.0550	0.0427
Dahod	-0.0569	0.6842	0.1225	0.2563	0.0931	0.0194
Vadodara	0.4253	0.6814	1.1785	7.1124	-0.0588	-0.0092
Narmada	0.0348	0.4720	-0.5159	2.9290	0.1439	0.0893
Bharuch	0.3158	0.2143	1.7958	16.5739	-0.1929	0.0934
The Dangs	NA	0.3611	0.7935	3.3774	-0.1621	0.1134
Navsari	0.1247	0.2109	-0.3495	2.3721	0.0651	0.0349
Valsad	0.3788	0.2735	2.9995	2.0116	0.0441	-0.0259
Surat	0.3296	0.3481	0.4931	8.0365	0.1956	-0.0111
Gujarat	0.1402	0.3135	0.0382	0.3679	-0.0961	0.0607

(Source: Compiled And Calculated By Authors From Census 2001 And 2011 And NSSO)

Observations:

According to table 4, positive indicators of urbanization indicate rural transformation stating that urban population is increasing in the evaluation period. Overall Gujarat has 0.14 value for urbanization which is showing clear rural transformation but the rate of urbanization varies for different districts. Dahod is the only district with negative value showing the reduction in urban population. Dang is already in rural population only. Ahmadabad, Patan, Narmada and Porbandar are the districts have very slow level of rural transformation with the indicator of change in urbanization while Sabarkantha and Vadodara have the highest level of change in urbanization which is more than 0.4. Overall, out of 25 around 14 districts, has shown the urbanization faster than overall pace of state. Change in rural female literacy rate is another important indicator of rural transformation assessment. The change in this indicator is observed from 0.21 to 0.68 for different districts of Gujarat. This literacy transformation in rural Gujarat is not at the same pace because of the various social groups influences. The lowest change was observed in the districts like Amreli, Mehsana, Bharuch and Navasari with the value of less than 0.25. The female literacy need to be focused by government in rural areas so that real transformation can be more visible. Cropping intensity and Food crop farm land index changes are also observed positively for rural transformation. Cropping intensity is defined as a ratio between net sown area and gross cropped area to indicate additional percentage share of the area sown more than once to net sown area. Out of 25 districts, 16 districts have shown positive indicator showing rural transformation in the evaluation period. This change is recorded as high as 3 times in Valsad district. There are 9 districts where these changes are negative like Kachchh, Junagadh, Mahesana, Banaskantha, Panchmahal, Ahmadabad, Surendranagar, Navsari and Narmada. There can be multiple reasons attributed to this but rain water is major concern in some of the districts of north Gujarat. These are the district where agriculture policies need to relook to achieve the transformation. Food crop farmland index change is also depicting rural transformation. It is the index showing the ratio between Food crop area to Total Crop area. At time negative value indicate the shift from Food crop to other non-traditional crops depicting the farmer's ability to venture into other crops with higher yields. This is indeed transformation at farm level. 12 districts have shown negative values indicating that they have taken up transformation and ventured into nonfood crops to increase their yield and income. Rural transformation can also be explained through Rural Consumption Structure change during the evaluation period. Consumption structure refers to ratio of

food consumption to non-food consumption where in rising proportion on non-food consumption depicts the change in life style of people living in rural area. If food consumption proportion reduces during the evaluation period, negative indicator shows the high level of rural transformation. Out of 25 districts, 15 districts have shown negative values for this indicator advocating the strong argument for rural transformation in Gujarat. These districts' rural population requires special attention to observe their life style and their consumption pattern. Rest all other district rural population has shown significant spending in non food items. The last indicator is rural employment structure change where the proportion of rural labour employed in primary sector is measured during the evaluation period. The negative indicator shows the higher rural transformation at district level. The performance of various districts on this indicator is showing very slow transformation. The only 5 district named Kachchh, Valsad, Surat, Vadodara and Jamnagar has shown negative indicator reflecting change in employment structure. The ratio of rural labours employed in primary sector has reduced in these districts during evaluation period reflecting positive transformation.

Indicators for urban–rural coordination level assessment at district level:

It is commonly discussed in literature that the life style and standard of living in rural region is deprived in comparison of urbanregion, hence it is essential to examine the extent of urban–rural coordination in Gujarat for different districts. Table 5 shows the different indicators and their performance of urban–rural coordination assessment.

Table 5 : Indicators for urban–rural coordination level assessment at district level

District	Urban–rural female literacy gap comparison	Urban–rural male Work participation gap comparison	Urban–rural female Work participation gap comparison	Urban–rural consumption level Gap comparison	Urban–rural consumption structure comparison
Kachchh	0.6999	0.9846	1.5079	0.5759	0.5756
Banaskantha	0.6583	0.9948	3.4870	0.8258	0.7668
Patan	0.7239	1.0284	2.8957	1.1030	1.2265
Mahesana	0.8609	1.0357	2.4011	0.5382	0.4797

(Continued...)

Sabarkantha	0.7841	1.0525	2.3849	1.1047	0.8024
Gandhinagar	0.8659	1.0454	1.8917	0.4728	0.5020
Ahmadabad	0.6860	1.0117	2.0569	0.5650	0.7620
Surendranagar	0.7118	1.0030	3.0528	0.7687	0.8900
Rajkot	0.8086	1.0215	3.2193	0.7032	0.7986
Jamnagar	0.8072	1.0484	2.4005	0.7072	0.7364
Porbandar	0.7742	1.0455	2.5200	0.7363	0.5627
Junagadh	0.8365	1.1118	3.2366	0.7077	0.8207
Amreli	0.8284	1.0689	2.7959	0.6895	0.6224
Bhavnagar	0.7610	0.9596	2.8341	0.7837	1.2686
Anand	0.8686	1.0639	1.8479	0.6296	0.7873
Kheda	0.8680	1.0689	2.1625	0.7323	0.7844
Panchmahal	0.6472	1.0745	4.0321	0.5502	0.6035
Dahod	0.5572	0.9877	2.8282	0.5191	0.8631
Vadodara	0.8103	1.1036	2.0660	0.5318	0.5277
Narmada	0.7065	1.1296	2.8769	0.6522	0.7209
Bharuch	0.8276	1.0490	2.5765	0.6837	0.9356
The Dangs	0.7073	1.2135	3.7135	NA	NA
Navsari	0.9008	1.0145	2.2210	0.7433	0.6015
Valsad	0.7623	0.9063	2.3714	0.5591	0.8742
Surat	0.8628	0.9045	3.5559	0.4281	0.5619
Gujarat	0.7371	0.9640	2.9276	0.5431	0.6694

(Source: Compiled And Calculated By Authors From Census 2011 And NSSO)

Observations:

Urban-Rural female literacy gap is visible across all the districts. For overall Gujarat, the gap is observed with the value of 0.7371 stating that still 25% of gap need be addressed by policy makers in female literacy. Navsari has the least gap with the value near to one (0.90) while Dahod has the highest gap with the value of 0.55. This is very big range of gap over the different districts for urban-rural female literacy comparison. Sixteen districts have the coordination index value of higher than Gujarat state while five districts still have very low coordination index with respect to female literacy. Work participation is very important indicator with respect to urban-rural coordination for male and female. Male work participation for urban and rural seems very coordinated with index value (0.96) very near to one. Interestingly for female work participation coordination index value is 2.92, showing higher female work participation in rural area compare to urban area. Rural females are more in workforce than urban female while urban males are higher in workforce compare to rural males. Banas Kantha, Dohad, Kachchh, Bhavnagar, Valsad and Surat are the district where the rural male work participation gap is observed while rest of the districts are have more rural work participation of male. Panch Mahals, The Dangs, Surat, Banaskantha, Junagadh, Rajkot and Surendranagar are the district where rural female work participation is very high as index value is higher than 2.92 – index value for Gujarat state. The consumption comparison is another very critical indicator for urban – rural coordination. This also has clear indication of gap between rural and urban with less consumption in rural area for majority of districts except Sabarkantha and Patan. More than 50% gap is observed in Mahesana, Vadodara, Dahod, Gandhinagar and Surat districts. Similarly consumption structure i.e. ratio of food consumption to non food consumption was analyzed for urban and rural to check the coordination level. It is inferred from the data that there is wide gap in the consumption structure as index value is ranging from 0.47 to 1.26 stating only two district named Bhavnagar and Patan whose values are more than 1. Rest all districts the consumption structure is showing very poor coordination among rural and urban.

Findings:

The analysis shows that Rural Gujarat has observed a notable transformation during the decade of impressive economic growth after the election of Modi Government in 2001. In addition, the rural transformation of Gujarat accompanied with rural development on social, economical and

infrastructure front, however, improvement in rural transformation has not been kept pace with rapid urbanization. There is still a lot of scope for improvement in majority of the indicators showing Rural Development, Transformation and Coordination in Gujarat at micro level.

Conclusion:

In the study, rural transformation is measured and analyzed to understand the pattern and depth at the district level for Gujarat state at large over the period 2001 to 2011. The indicators are developed for analyzing the different dimensions of rural transformation to get the multi-dimensional assessment. Very comprehensive assessment was carried out at micro level for each district in the form of Rural Development, Transformation and Coordination.

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07

Effect of Cooperatives on the Savings and Investment Behaviour of Members of Cooperative Credit Societies with special reference to Youth

Sutar Poonam*

Abstract :

Firstly, the study examines the socio-economic factors influencing credit co-operative societies' savings behaviour considering variables such as age, gender, education, credit, duration of membership, income, family size, etc. This will enable the researcher to identify the factors that significantly influence the members' savings and investment behaviour. Secondly, the research paper will focus on determining the relationship between co-operative membership and the members' savings. Lastly, the study will assess the factors affecting the savings and investment patterns of the members.

This study is empirical, and data is collected using primary sources. For primary data, the researcher, with the help of structured questionnaires, has interviewed the members of credit societies in Goa who were randomly selected. Data is analysed using appropriate techniques like regression, correlation, chi-square, cross tabbing, and factor analysis. The study will provide valuable insights to various stakeholders, and it will help understand the savings and investment behaviour of members.

The study revealed a significant association between age and purchase of household appliances and the spending behaviour of respondents towards marriage. In addition, the study found seven factors: extra income, awareness, influence, ease and efficiency, liquidity, additional benefits, and return on investment, which affect the savings and investment pattern of the members. Also, the study found no significant relationship between co-operative membership and savings, and there is a considerable impact of monthly income on the members' savings.

*Student: M. Com Part II, Post-Graduate Department of Commerce, Government College of Arts, Science and Commerce Khandola-Marcela, Goa

Keywords:

Co-operatives, Credit societies, Investment behaviour, Membership, Savings.

1. Introduction :

Barton (2000) explained that a co-operative is one type of business that has existed in the economy for more than 100 years. This concept of cooperation is mainly for the democratic countries and those countries with a capitalist economy and market-oriented. Different countries primarily adopted this concept, which was very successful and extended during the 20th century, mainly in North America and Europe.

1.1 Defining Co-operatives :

“According to Gaywala (2018), A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.” (Conn, 2003)

A co-operative is a business possessed and managed by the members who use its services and receive various benefits through cooperation. Here whatever profits or surplus is there, it is distributed among its members equally or the services used by the members. Owners are also known as members of society. There are two ways owners receive benefits from the community; first is the services used by them, and secondly, based on business, they do with the co-operative (Frederick et al. 1997).

1.2 Co-operatives in India :

In India, the co-operative credit societies act was introduced in 1904 by the recommendations of a committee that the Government of India appointed under the chairmanship of Sir Edward Law. This Act permits to start of primary credit societies in India. After introducing the Act in India, the first “Urban Cooperative Credit Society” was established in Kanjivaram in the Madras Presidency in October 1904. After that, various states started their Cooperative Credit Societies (Deshpande 2017).

1.3 Concept of Investment And Savings :

Investment means converting our savings into investment for the future creation of assets. This takes away some funds from our daily consumption and invests in good returns. This investment activity leads to the

productive use of available funds, which will help increase our income and future assets. Whereas savings can be termed as an excess of savings over expenditure. Here keeping some money for the future use out of the spending. Households mostly do savings, and this savings habit is mainly found in the households. Anybody who saves has some fundamental objective in his mind behind the rescue. The goals may meet future needs, uncertainties, contingencies, increase wealth, improve the standard of living, etc. (Naik 2014).

1.4 Goa :

Goa is the 25th state in the union of India, and it was a part of the union territory of Goa, Daman, and Diu till 30th May 1987, when it was named a separate state. In the erstwhile Union Territory of Goa, Daman and Diu, way back in 1962, a co-operative movement was started, and their main aim was to strengthen the poor sections of the state. To regulate the co-operatives, the Goa government formed department of cooperation in 1962. Before introducing the co-operative society act in Goa, the state had adopted the Maharashtra State Cooperative Societies Act, 1960, and the Rules, 1962. After some time, state formed its own co-operative society act 2001 and rules 2003, and co-operatives in Goa follow this Act to run their co-operatives (Government of Goa official website).

2. Review of Literature :

Singh (2021) and Chaturvedi Sharma (2021) examined the factors that influence the investment decisions of retail investors in the Indian stock markets and working women, respectively. In addition to this, Chaturvedi Sharma (2021) also analysed women investors' awareness and perception regarding various investment avenues. These studies were empirical and used primary and secondary data. The researchers used factor analysis for analysing the data. Singh (2021) found that the investors test the shares on different factors like rational, emotional, personal, investment objectives, and opinion based and accordingly take their investment decisions. Chaturvedi Sharma (2021) conclude that modern women investors are risk-takers and the perception of women investors regarding non-conventional investment avenues like mutual funds has positively and progressively changed. Primary factors considered by women investors while investing in their funds: attachment, source of information, risk, additional income, quality of life, and independent decisions.

Iheoma, Chidiebere analysed co-operative farmers' savings level and

investment behaviour. Similarly, Okechukwu et al. (2020) compared the amount and frequency of savings to reach savings determinants among co-operative and non-co-operative farmers. Both the studies were empirical. Iheoma, Chidiebere (2020) used descriptive statistics, and Okechukwu et al. (2020) used the multiple regression method to analyse data. Iheoma, Chidiebere (2020) concluded that the savings levels of farmers were deficient, and there was a need to increase their income by providing better investment opportunities to them. Similarly, Okechukwu et al. (2020) concluded there is a significant difference between the amount and frequency of savings of co-operative and non-cooperative farmers as communal farmers save more. Onwumelu et al. (2020) studied the effect of socio-economic characteristics and determined the impact of institutional factors on the savings behaviour of members of co-operative societies. Primary data was collected from 300 randomly selected respondents. Multiple regression techniques at a 5% significance level were used to evaluate the data. Findings suggest that the socio-economic and institutional factors affect the savings behaviour of the members.

Ghodake and Khedkar (2020) assessed income, expenditure, savings, and investment patterns and analysed the role of debt in rural spending, protection, and investment patterns in the rural world (in India). This study was conceptual and collected data from secondary sources. Findings showed that government should take some initiatives for the rural farming families, such as providing lands, credit facilities and encouraging formal education families for a better standard of living. Thapa and Shah (2020) and Jain et al. (2019) evaluated the various factors influencing investment decisions in gold and analysed factors affecting investment behaviour. Thapa and Shah's (2020) study was empirical and used primary data. Jain et al.'s (2019) study is an analytical review and uses secondary information. Thapa and Shah (2020) adopted descriptive statistics, t-test, and correlation to analyse the data and findings to conclude the significant positive relationship between contextual variables and investment decisions. Jain et al. (2019) covers numerous variables that direct an investor's investment decision.

Hemalatha (2019) tried to find out attitude differences in the perception of individual investors on factors influencing investment decisions based on the demographical profile of the individuals. The researcher collected primary data from 374 respondents by using a questionnaire, and also secondary information was used. For analysing data, descriptive statistics

have been used. The results proved that investment selection factors vary according to gender, age, occupation, internet usage, computer knowledge level, and online trading usage. Rohatgi et al. (2019) focused upon different literature available on small investors' savings and investment patterns. They focused upon the impact of factors on small investors as considered by the esteemed learners and how far it is applicable in the section Uttarakhand region of India. The study was conceptual and used secondary data. Researchers suggest that small investors must be provided with study material related to investment avenues to help investors make proper investment decisions.

Kumari (2018) and Ansari and Moid (2013) investigated the factors influencing working women investors and young investors. Kumari (2018) also tried to find solutions for the problems faced by working women for investment. Ansari and Moid (2013) analysed the saving objective and effect of demographic variables on the conceptual awareness level of young individual investors. Both studies were empirical and took primary and secondary data from various sources. Kumari (2018) used factor analysis, and Ansari and Moid (2013) used chi-square technique. Kumari (2018) concludes that women investors should look in all avenues while investing their valuable income; Ansari and Moid (2013) conclude that young investors' investment is independent of age, income, and gender. Burghate (2018) explored the motives for saving and components of savings of middle-income households. The report is exploratory, for which the researcher has used primary and secondary sources of data. The study findings show a positive correlation between the number of earning members & the family income.

Mahalakshmi and Anuradha (2018) analysed the impact of psychological biases, spouse effect, and level of engagement in investment decision-making and performance. The researcher used secondary sources of data through Journals, magazines & periodicals. The findings indicate the mediating effect of level of engagement and the moderating effect of spouse effect on investment decision making and investment performance. Therefore, investment advisors must frame strategies depending on these factors to ensure better investment elisions. Mensahklo et al. (2017) focused on economic factors and assessed the effect of financial technological factors on the saving behaviour of households living within the Ho municipality. This is a case study of Ho Municipality, where they have used primary and secondary data sources. In primary data collection

total of 152 respondents were selected with the help of simple random and purposive sampling techniques. To analyse the data, they have used descriptive and inferential statistics. Findings revealed that most individuals use ATMs to withdraw and deposit cash, which motivates people to save money in financial institutions. However, the researcher concluded that the determinants of saving behaviour vary from person to person as they have diversified purposes of protecting and consuming money.

Subramaniam and Velnampy (2017) identified the behavioural finance-based factors that influence the investment decisions of household investors in the Northern Province of Sri Lanka. This study was empirical and used both primary and secondary sources of data. For primary data, 1810 sample was selected using a stratified sampling technique. Analytical tools of exploratory factor analysis and confirmatory factor analysis were used to analyse data. Findings show that Representativeness bias, Overconfidence bias, Availability Bias, Loss Aversion bias, Regret Aversion bias, and Herding influence the investment decisions of household investors. Das and Kumar (2016) found out the relationship between saving and investment behaviour among middle-class households and studied the impact of demographic variables on saving and investment behaviour. The primary and secondary sources of data was used and collected data were analysed with the help of the Pearson Correlation Matrix and Two-Way ANOVA test. Findings revealed that 'Type of Employment' & 'Monthly Income' do not significantly affect the 'Saving Behaviour' of the respondents; whereas, 'Investment Behaviour' of respondents is only markedly affected by the personal impact of 'Monthly Income'.

Singh and Yadav (2016) and Syed and Pardhasaradhi (2012) examined factors Influencing investors' decisions while investing in equity shares, and also Pardhasaradhi (2012) analysed factors that motivate the investors to invest in shares. These studies were empirical and used both sources of data. Singh and Yadav (2016) examined the independent data t-test, and used mean scores. Syed and Pardhasaradhi (2012) investigated the data. Factor Analysis, and Cronbach's-alpha test are used. Singh and Yadav (2016) conclude that investors should, as far as possible, try to make fundamental, technical, and financial analyses before investing in the shares. Pardhasaradhi (2012) concludes that ten factors, namely Individual Eccentric, Wealth Maximization, Risk Minimization, etc., mainly influence the buying and investment decision of the investors. Islamoğlu et al. (2015) and Geetha and Ramesh (2011) determined the factors influencing

individual investor behaviour. Geetha and Ramesh (2011) also studied the attitude of the respondents towards different investment choices. Both studies were based on primary and secondary data. Islamoğlu et al. (2015) used factor analysis, and Geetha and Ramesh (2011) used the chi-square technique to analyse data. Islamoğlu et al. (2015) and Geetha and Ramesh (2011) conclude that factors like income, past investment experiences, expert and other investors' opinions, liquidity, risk, performance, return, and protection of investment influence the investor's decisions.

3. Research Gap :

Authors such as Iheoma, Chidiebere (2020), Okechukwu et al. (2020), Onwumelu et al. (2020), Frank et al. (2013), Maleko et al. (2013), Kimeli et al. (2012) and Adeyemo, Bamire (2005) studied savings and investment behaviour of members of the co-operative society. Wherein, Iheoma, Chidiebere (2020) and Adeyemo, Bamire (2005) studied the savings level and investment behaviour of co-operative farmers also Okechukwu et al. (2020) tried to compare the amount and frequency of savings and the determinants of savings among co-operative and non-co-operative farmers. Onwumelu et al. (2020) examined the effect of socio-economic characteristics and determined the impact of institutional factors on the savings behaviour of members of co-operative societies. Frank et al. (2013) analysed the effect of co-operative membership on the savings and socio-economic factors influencing the savings behaviour of members of credit co-operatives. Maleko et al. (2013) examined the participation of women in SACCOS with a significant focus on membership, governance, and management. Kimeli et al. (2012) tried to evaluate the effect of financial strategies on savings mobilisation and assessed the impact of member training on savings mobilisation. Limited research work seems to be done in Ga, on the impact of co-operatives on the savings and investment behaviour of credit societies members; hence, this study is undertaken.

4. Research Problem:

As the importance of capital inflow in the economy is known when the savings are converted into an investment, it is one of the critical of capital inflow. Cooperative is one of the essential mediums that convert savings into investment, leading to capital inflow in the economy. Therefore, the researcher has selected socio-economic factors to understand how these factors influence the savings behaviour among members. It also focuses on the understanding relationship between co-operative membership and savings, where the researcher is trying to study the change in membership

lead to change in savings. The study also highlights different factors that affect the savings and investment patterns, which will help the co-operative society to get a deep understanding of its members.

5. Research Questions:

- a) What are the socio-economic factors that influence the savings behaviour of members?
- b) What is the relationship between co-operative membership and savings of the members?
- c) What factors affect the savings and investment pattern of members?

6. Research Objectives:

- a) To examine the socio-economic factors influencing the savings behaviour of members.
- b) To determine the relationship between co-operative membership and savings of the members.
- c) To identify the factors affecting members' savings and investment patterns.

7. Research Methodology :

The study was conducted in the state of Goa. The total sample size is 125 respondents randomly selected members from different co-operative credit societies. The study is carried out during October and November 2021. Through a structured questionnaire, primary data is collected. The questionnaire consists of three parts, the first part consists of the demographic profile of respondents, the second part consists of personality perception, and the third part is about the perception of respondents towards investments and savings. To analyse the data cross tabbing, regression analysis, chi-square, and factor analysis are used with the help of SPSS software.

8. Analysis And Findings :

In the questionnaire first part consists of the demographic profile of respondents t; therefore, to analyse it cross tab is used. Gender is considered as a base, and accordingly, data analyses are done.

8.1 Demographic Profile:

Table 1: Demographic Profile

Variables	Particulars	Male	Female	Total	%
Age (in years)	18-28	31	31	62	49.6
	29-38	17	15	32	25.6
	39-48	6	9	15	12
	49-58	6	5	11	8.8
	58 and above	4	1	5	4
Qualification	SSC	17	10	27	21.6
	HSSC	21	8	29	23.2
	Graduation	20	33	53	42.4
	Post-Graduation	2	7	9	7.2
	Other Courses	4	3	7	5.6
Occupation	Government Employee	7	7	14	11.2
	Salaried person	35	34	69	55.2
	Businessman	8	2	10	8
	Student	8	8	16	12.8
	Retired	4	0	4	3.2
	Others	2	10	12	9.6
Monthly Income(Rs)	Less than Rs.10,000	23	24	47	37.6
	Rs.10,001-Rs.20,000	19	20	39	31.2
	Rs.20,001-Rs.30,000	10	8	18	14.4
	Above Rs.30,000	12	9	21	16.8
Monthly Expenditure(Rs)	Less than Rs.5,000	28	26	54	43.2
	Rs.5,001-Rs10,000	24	28	52	41.6
	Rs.10,001-Rs.20,000	10	6	16	12.8
	Above Rs. 20,000	2	1	3	2.4
Savings per month(Rs)	Less than Rs.5,000	44	41	85	68
	Rs.5,001-Rs.10,000	17	16	33	26.4
	Rs.10,001-Rs.20,000	3	2	5	4
	Above Rs.20,000	0	2	2	1.6
Size of Family	Less than three members	13	11	24	19.2
	3-5 members	44	46	90	72
	More than five members	3	3	6	4.8

Source: Primary Data

Table 1 shows the demographic profile of the respondents, majority respondents, i.e. 49.6% of respondents are youth and belong to the 18-28 age group and minority, i.e. 4% respondents are senior citizens and belong

to 58 and above age group, where most of the respondents, i.e. 42.4% have completed their graduation degree. Whereas, 55.2% of respondents, which is the most significant section of the respondents, are salaried people, and in the case of income, many respondents, i.e. 37.6%, respondents have less than the income of Rs.10,000 and a more significant proportion of the respondents, i.e. 43.2% respondents spend less than Rs.5,000. In the case of saving, the majority, i.e., 68% of respondents keep less than Rs.5,000 and the majority, that is, 72%, have a family size of 3-5 members.

8.2 The socio-economic factors influencing the savings behaviour of members :

this objective helps us understand the various socio-economic factors influencing the savings behaviour of members of a co-operative credit society. To achieve the goal, the chi-square and regression technique is used. Chi-square compares the frequencies and age as taken as a base, and accordingly, data is analysed. Regression is used to find the relation between the independent and dependent variables, showing the independent variable’s impact on the dependent variable.

Ho: There is no significant association between age and selected variables

H1: There is a significant association between age and selected variables

Table 2: Chi-Square Analysis

Variables	18-28 (years)		29 and above (years)		Total		Chi-square	P-value
	No.	%	No.	%	No.	%		
Savings Avenue								
Commercial bank	36	37.89	35	40.69	71	39.22	0.152	(0.697)
Credit co-operative society	44	46.31	41	47.67	85	46.96	0.715	(0.398)
Post office	12	12.63	9	10.46	21	11.60	0.639	(0.424)
At home	3	3.15	1	1.16	4	2.20	1.101	(0.294)
N	95	100	86	100	181	100		
Spending behaviour								
Education	26	23.63	25	28.40	51	25.75	0.111	(0.739)
Purchase of household appliances	40	36.36	28	31.81	68	34.34	5.587	(0.018)
Purchase of gold	16	14.54	13	14.77	29	14.64	0.541	(0.462)

(Continued...)

Purchase of vehicles	10	9.09	12	13.63	22	11.11	0.150	(0.699)
Travelling	13	11.81	10	11.36	23	11.61	0.607	(0.436)
Marriage	5	4.54			5	2.52	5.381	(0.020)
N	110	100	88	100	198	100		
Another investment avenue								
Banking Products	43	66.15	42	57.53	85	61.59	0.210	(0.647)
Post-offices schemes	15	23.07	22	30.13	37	26.81	1.580	(0.209)
Stock market	4	6.15	7	9.58	11	7.97	0.795	(0.373)
Real Estate	3	4.61	2	2.73	5	3.62	0.243	(0.622)
N	65	100	73	100	138	100		

Source: Primary Data

Table 2 shows the personality perception variables, including savings avenue, spending behaviour, and another investment avenue. This data was analysed using a chi-square test to know the effect of age on selected variables. A p-value of less than 0.05 indicates a significant association between age and selected variables. In the case of savings avenue, there is no significant association between age and perception of the respondent towards keeping savings in commercial banks ($\chi^2=0.697>0.05$), credit co-operative society ($\chi^2=0.398>0.05$), post office ($\chi^2=0.424>0.05$), and at home ($\chi^2=0.294>0.05$). In the case of spending behaviour, there is no significant association between age and respondents' spending behaviour towards education ($\chi^2=0.739>0.05$), gold ($\chi^2=0.541>0.05$), vehicle ($\chi^2=0.699>0.05$) and travelling ($\chi^2=0.436>0.05$). There is a significant association between age and purchasing behaviour of respondents towards household appliances ($\chi^2=0.018<0.05$) and spending behaviour towards marriage ($\chi^2=0.020<0.05$). In case another of investment avenue, there is no significant association between age and investment towards banking products ($\chi^2=0.647>0.05$), post office schemes ($\chi^2=0.209>0.05$), the stock market ($\chi^2=0.373>0.05$), and real estate ($\chi^2=0.622>0.05$).

Regression Analysis :

Table 3: the relationship between the independent and dependent variable

Model	B-Value	Sig- Value
(Constant)	.285	.449
Gender	.148	.243

Age (in years)	.016	.791
Education/Qualification	.041	.500
Occupation	-.032	.587
Monthly Income	.362	.000
Number of family members in your family	-.025	.843
How much is the total credit obtained from co-operative society in a year	.086	.139
R square	.377	
Adjusted R ²	.327	
Std. The error of the Estimate	.572	

Source: Primary Data

Hypothesis:

Ho: There is no significant impact of Socio-Economic factors on the Savings

H₁: There is a substantial impact of Socio-Economic factors on the Savings
 The adjusted R- square value is 0.327, which indicates that around 32.7% of variations in savings, which is a dependent variable, are explained by independent variables, which are gender, age, education, Number of Family members, Monthly Income, and credit obtained, and occupation.

The P-value for Gender, Age, Education/Qualification, Occupation, No. of family members and credit obtained is more than 0.05 at a 5% significance level. Hence, we fail to reject the null hypothesis and conclude that there is no significant impact of Gender, Age, Education/Qualification, Occupation, No. of family members and credit obtained on the savings.

The P-value for Monthly Income is 0.000, less than 0.05 at the 5% significance level. Hence, we reject the null hypothesis, accept the alternate view, and conclude that monthly income significantly impacts savings. The co-efficient value is 0.362, which is positive and indicates a positive effect of monthly income on savings; hence one unit increase in revenue will lead to a 0.362 unit increase in the savings.

8.3 Determination of the relationship between co-operative membership and savings of the members

This objective will help us know about the relationship between co-

operative membership and the members' savings. To analyse correlation technique is used. This test helps us know about the strength and direction in which the variables move.

H₀: There is no significant relationship between co-operative membership and savings of the members

H₁: There is a significant relationship between co-operative membership and savings of the members

Table 4: The correlation between the co-operative membership and savings

Variables	Pearson Correlation	Sig. Value
Duration of your membership in credit co-operative society Savings per month of the respondent	0.075	0.409

Source: Primary Data

The P-value for savings is 0.409, which is more than 0.05; hence we fail to reject the null hypothesis and conclude that there is no significant relationship between co-operative membership and savings of the members.

8.4 The factors affecting savings and investment pattern of members

This objective helps us know about the various factors that affect the members' savings and investment patterns. To analyse this objective, Factor analysis is used. Factor analysis is a grouping technique, which groups similar factors into one group, and also it is a data reduction technique.

Table 5: The factors affecting savings and investment pattern of members

Factors (overall $\alpha = 0.813$)	F1	F2	F3	F4	F5	F6	F7
F1: Returns on Investment							
Investment in credit society gives stable returns to all its members	.597						
Returns from credit societies are more as compared to other options	.684						
I can easily withdraw my investments	.760						

(Continued...)

The credit co-operative society in which I am a member is financially strong	.661						
F2: Extra income							
I do savings from income.	.720						
I do use my savings for investment activity.	.838						
I do plan before investing money.	.700						
Investment activity helps to earn extra income.	.712						
F:3 Liquidity							
I think that one must save for the future.	.860						
Saving is significant.	.805						
I do not require much initial amount to become a member of the co-operative credit society.	.597						
F:4 Influence							
Savings and Investment decisions are taken based on the number of family members.	.788						
Family members influence my savings and investment decisions.	.717						
Education is a must for savings and investment.	.803						
F5: Awareness							
Males save and invest more than females.	.625						
I usually invest in a co-operative credit society because I see other people invest in them.	.672						
I have complete knowledge about various investment schemes provided by the co-operative credit society.	.622						
I always prefer new and different investments avenues.	.598						
The employees of the credit co-operative society are customer friendly.	.475						

(Continued...)

F6: Ease and Efficiency							
Becoming a member of a co-operative credit society is very easy.						.508	
The processing of loans is done quickly.						.813	
The services provided by the credit co-operative society are efficient.						.561	
F7: Additional Benefits							
Saving in a co-operative credit society gives extra benefits.							.790
Availing credit in a co-operative society is easier as compared to other options.							.776
KMO Value	0.708						
Eigenvalue	4.998	2.941	2.301	1.911	1.359	1.255	1.166
Cronbach's Alpha (a)	0.745	0.770	0.738	0.745	0.648	0.556	0.635
Number of items	4	4	3	3	5	3	2
Variance explained	19.993	11.765	9.203	7.644	5.435	5.022	4.662
Total variance explained	63.724						

Source: Primary Data

Table 5 shows the factor analysis results on the 24 variables to group them into several factors. All the variables analysed in the survey data were then classified into seven factors using an Eigenvalue cut off of 1.0. The resulting factors were then named F1: Returns on investment, F2: Extra income, F3: Liquidity, F4: Influence, F5: Awareness, F6: Efficiency, and F7: Additional Benefits. The overall reliability of the 24 variables gave a fair value, which is considered acceptable ($\alpha=0.813>0.7$). Individual factor reliability was also found acceptable, viz., F1: Returns is 0.745; F2: Extra Income is 0.770; F3: Liquidity is 0.738; F4: Influence is 0.745; F5: Awareness are 0.648; and F6: Efficiency is 0.556 and F7: Additional Benefits is 0.635. KMO Measure of Sampling Adequacy showed 0.708, indicating that the data are sufficient for exploratory factor analysis. The seven factors explained 63.724% of the total variance.

Findings :

- Study found around 50% of respondents are members of credit society, which concludes that youth participation in credit society is more than other people.

- There is no significant association between age and savings avenue, another investment avenue, and spending behaviour except for the purchase of household appliances and spending behaviour towards marriage.
- There is no significant relationship between co-operative membership and savings of the members.
- The study found seven factors: extra income, awareness, influence, ease and efficiency, liquidity, additional benefits, and return on investment, which affect the savings and investment pattern of the members.

Suggestions :

- Educating the people and motivating them to invest in credit co-operative societies
- Focusing more on the people who are in the age group of 29 and above
- Participation of youth in credit society is more than others, which tells that youth are taking more interest in co-operatives. This is an advantage for co-operatives as the youth are the ones who have more income as well as they try to invest their money so the co-operative can provide various investments avenues with good returns so that it will help youth as well as co-operative credit society to earn.

Conclusion:

The study concludes that saving is an essential factor that brings economic growth and development to the country, and savings can improve the economy; as more people save, more will be capital formation in the economy, resulting in economic growth development. Savings is usually considered in economics as disposable income less personal consumption expenditure. It could also be regarded as income not consumed immediately by purchasing goods and services. In contrast, investment refers to preceding consumption to earn more income in the future (Iheoma and Chidiebere 2020). The study found that cooperation is an important medium that converts savings into capital for the economy.

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Strengthening Farmers Co-operative with Crop Insurance

Dr. Ankita R. Ojha*

Abstract:

Agriculture in India is one of the country's major occupations. Because of the chances of natural disasters, risk involved in the business of agriculture for farmers is unfortunate. For the sake of farmers in the country, the government has launched Pradhan Mantri Fasal Bima Yojana to lighten the heavy risk associated with agriculture. The objective of this research is to study the number of farmers availing service of crop insurance provided by insurance company through The Amravati District Central Cooperative Bank, Amravati and awareness among them regarding Crop Insurance. A comprehensive questionnaire is designed to collect the data from the sample of 100 respondents. Likert's method is applied to find out the awareness level of the farmers. The sample respondents are called to respond to each statement relating to the crop insurance schemes, using 3-point rating scale ranging from well aware to less aware. The primary data is further tabulated and analyzed with the help of Chi-Square Test at 5% level of significance.

Keywords :

Crop Insurance, Farming Risk, Co-operative Bank, awareness regarding Crop Insurance.

Introduction:

On biological activity, agriculture production is depended because it is highly sensitive in respect to change in weather. Important weather variables such as temperature, humidity, rainfall, wind etc. influence the biological process directly or indirectly. Biological process is directly or indirectly influenced by the weather variables such as rainfall, wind,

*Department of Commerce, Sant Gadge Baba Amravati University, Amravati, Maharashtra, India.

humidity and temperature, etc. Changes in the weather variables adversely affect the crop yields, production and income on individual farms.

To help in stabilize farm incomes, especially in the years that disaster hits, to provide farmers with financial support and insurance coverage in the event of natural calamities, diseases and to encourage farmers to implement progressive farming practices with better technology, Crop Insurance is a basic requirement that all farmers should adopt.

Many insurance companies are helping the farmers by providing them crop insurance for which they have charged premium against it. Not only Insurance Company, but also Cooperative Bank helping the farmers by offering them crop insurance.

Crop Insurance :

Government of India has introduced the Comprehensive Crop Insurance Scheme. This scheme was introduced with the active participation of State Governments, but it was optional for the State Governments.

Pradhan Mantri Fasal Bima Yojana has implemented with restructured Weather Based Crop Insurance Scheme (RWBCIS). Maximum premium of only 2% will be paid by farmers for all Kharif crops and 1.5% for all Rabi crops. Farmers will be paid only 5% premium in case of annual commercial and horticultural crops. The premium rates to be paid by farmers are very low and balance premium will be paid by the Government, to be shared equally by Central and State Government, farmers will be provided full insured amount against crop loss.

Government has introduced 0% interest crop loan for farmers for a period of one year. Primary Agricultural Credit societies in rural areas, Co-operative Central Banks at the district level and the Apex Bank at the state level are the three-tire structure for this short-term period of crop loan. Government has introduced crop insurance scheme for the farmers who have borrowed crop loan. So, even if the farmers face production loss, crop insurance has to help him to clear his loans and avail fresh loans and continue his farming business.

Review of Literature :

Kumar (2015) has analyzed that if thousands of farmers are killing themselves due to ravaged fields, because the protection from climate in terms of crop insurance has failed when the farmer needed it the most

McIntosh (2013) analysed that the demand for Weather Index Insurance, Pre- launch demand seemed high but after launch demand was low. Reasons for this is identified as the information transmission mechanism to farmers was inadequate for a new and rather complicated financial product, such as Weather Index Insurance and failure of marketing efforts.

Parchure Rajesh (2009), shows that the aim of crop insurance schemes is not to make profits, profits can be used either to give indemnities covering principle repayments and/ or the funds of the insurer can be directed towards investments in agriculture infrastructure.

Barnett and Mahul (2008) has reported that the effective mechanisms for transferring risk can catalyze investment and economic growth, thus contributing to poverty reduction in rural areas of lower income countries. Weather index insurance is a relatively simple concept that under certain circumstances can effectively transfer spatially covariate weather risks.

Narayanan H. (2006), reports that agriculture insurance is destined to play an important role in managing the risk of the agriculture sector, whose contribution to the growth of economy is substantial. The role of agriculture insurance for India can never be underplayed.

Bhende (2005) found that income of the farm households from semi-arid tropics engaged predominantly in rain-fed farming was positively associated with the level of risk. Hence, the availability of formal instrument for diffusion of risk like crop insurance will facilitate farmers to adopt risky but remunerative technology and farm activities, resulting in increased income.

Sinha Sidharth (2005), finds that Agriculture insurance can be improved by increasing the accuracy and timeliness of crop estimation methods possible through the use of new technologies. This would need to be supplemented by institution and operating procedures which enable the private sector to provide agriculture insurance.

Sinha Sidharth (2004), Says that crop insurance is one of the instruments protecting farmers from agriculture variability. Considering the contribution of the sector to the economy, the former Governor of the Reserve Bank of India, Dr. Y. V. Reddy, had suggested a national policy on agricultural risk management.

Objectives of Study :

1. To study the number of farmers insured under PMFBY for the year 2017-18 to 2020-21.
2. To study the condition for settling the claim in respect of crop insurance.
3. To know the amount paid by insurance company to the farmers who claimed against crop insurance.

4. To study the level of awareness in farmers regarding multitudinous parameters about crop insurance provided by PMFBY.

Hypothesis :

H₁: There is no significant association between age of sample respondents and the awareness level of farmers about crop insurance schemes.

H₂: There is no significant difference between gender and awareness level of crop insurance.

H₃: There is a significant difference between educational status and awareness level of crop insurance.

H₄: There is no significant difference between farm experience and awareness level of crop insurance.

Methodology And Analysis :

The present study is carried out by using both primary and secondary data. Required primary data are collected in the course of questionnaire with the farmers of Amravati District and unscheduled interview with the Manager of Head office of Amravati District Central Co-operative Bank. The sample chosen consisted of 100 sample respondents representing farmers. Likert's type 3-point rating scale ranging from well aware to less aware from 3, 2 and 1 are used.

Secondary data is collected from the website of Maharashtra government, Pradhan Mantri Fasal Bima Yojana, and government's GR. etc. Collected data are tabulated to make it suitable for further statistical analysis.

The statistical significance of these hypotheses has been tested with the help of chi-square test (χ^2) at 5% level of significance to test the relationship between socio-economic profile and awareness in farmers.

Before discussing about the analysis of data and results, let us have a look at secondary data.

The liability of the Insurance companies in case of catastrophic losses computed at the National level for an agricultural crop season, shall be upto 350% of total premium collected (farmer share plus Govt. subsidy) or 35% of total Sum Insured (SI), of all the Insurance Companies combined, whichever is higher. The losses at the National level in a crop season beyond this ceiling shall be met by equal contribution (i.e. on 50:50 basis) from the Central Government and the concerned State Governments.

Table 1: Rate of insurance charges payable by farmers

Sr. No	Season	Crops	Maximum Insurance charges payable by farmer (% of Sum Insured)
1	Kharif	Food & Oilseeds crops (all cereals, millets, pulses) & oilseeds,	2.0% of SI or Actuarial rate, whichever is less
2	Rabi	Food & Oilseeds crops (all cereals, millets, & oilseeds, pulses)	1.5% of SI or Actuarial rate, whichever is less
3	Kharif & Rabi	Annual Commercial / Annual Horticultural crops	5% of SI or Actuarial rate, whichever is less

Procedure for Settlement of Claims:

For coverage through Banks: -The claim amount along with particulars will be released to the individual Nodal Banks. The Banks at the grass-root level, in turn, shall credit the accounts of the individual farmers and display the particulars of beneficiaries on their notice board. The Banks shall provide individual farmer wise details claim credit details to Implementing Agency (IA) and shall be incorporated in the centralised data repository.

For coverage through other insurance intermediaries: The claim amount will be released electronically to the individual Insured Bank Account.

Service Fee:

4% of the premium collected from loanee and non-loanee borrower farmers will be reciprocally paid by the insurance company to the banks as bank service fee.

After the insurance companies have remitted the amount to the banks, the banks should remit the amount to the account of the farmer concerned within five days and submit a report to the company

Table 2 : Duration For Claim Settlement

Year	Claim settlement against loss of crop	Annual interest as Penalty in case of delay in payment of compensation by Insurance company
2018-2019	45 days.	6%
2019-2020	3 weeks.	12%
2020-2021	15 days.	12%
2021-2022	3 weeks.	12%

**Table 3 : Consolidated Business Statistics Pmfby, Maharashtra
Agriculture Insurance Company of Ltd.**

Year	Season Name	Scheme Name (PMFBY/RWBCIS)	Number of Farmer Applications	Sum Insured (Rs. in lakh)	Farmers Share in Premium (Rs. in lakh)	GOI Share in Premium (Rs. in lakh)	State Share in Premium (Rs. in lakh)	Gross Premium (Rs. in lakh)	Claim Paid (Rs. In lakh)
2017	KHARIF	PMFBY	3135428	542338.13	13717.74	52964.19	52964.19	119646.12	126586.89
2018	KHARIF	PMFBY	1427176	275184.18	5881.07	27585.77	27585.77	61052.6	52976.68
2018	RABI	WBCIS	168817	183143.41	9157.17	18097.74	19372.69	46627.6	65636.95
2019	KHARIF	WBCIS	11165986	2093154.15	52438.4	180574.37	180574.37	413587.14	528215.19
2019	RABI	WBCIS	255849	293807.98	14690.4	48898.86	50540.99	114130.25	91052.4
2020	KHARIF	PMFBY	2832774	495286.15	11051.55	63714.64	72312.69	147078.87	12186.42
2020	KHARIF	WBCIS	99513	77824.41	3891.22	3287.17	4205.42	11383.81	1869.72
2020	RABI	PMFBY	529671	101526.24	1604.7	12997.04	17096.97	31698.72	0
2020	RABI	WBCIS	70932	69321.4	3466.07	5923.56	8187.75	17577.37	0

The selection of insurance company from amongst the empanelled insurance companies to act as Implementing Agency (IA) shall be done by the concerned State Government for implementation of the scheme in their State. Such selection of IA shall be done from amongst the designated / empanelled companies which shall be initially pre-qualified, strictly on the basis of, experience, existence of infrastructure in the area and quality of services like coverage of farmers & area, pay-outs in terms of quantum & timely settlement thereof, willingness to do publicity & awareness campaigns etc. The final selection of IA from amongst the pre-qualified insurance companies shall be done based on the lowest weighted premium quoted by a pre-qualified company for all notified crops within the cluster of districts.

Discussion of Analysis & Results :

The present study examined socio-economic profile of farmer and their awareness regarding crop insurance. The following are the objectives tested and examined with the chi-square test.

Df= 6; critical value $\chi^2_{0.05,6} = 12.59$; $\chi^2 = 6.8323$

At 5% level of significance, the critical value obtained from the chi-square table is $\chi^2_{0.05,6} = 12.59$. χ^2 is calculated as 6.8323, which is less than the tabular value and falls in the acceptance region. Hence, the hypothesis is accepted. Therefore, it can be concluded that there is no significant association between age of sample respondents and the awareness level of farmers about crop insurance.

Table 6. Age And Awareness Level

Age group	Awareness level			Total
	Well Aware	Aware	Unaware	
20-29	0	17	0	17
30-39	0	36	12	48
40-49	0	15	06	21
50 & ABOVE	0	9	5	14
Total	0	77	23	100

Source: Primary Data

Table 7. Gender And Awareness Level.

Gender	Awareness level			Total
	Well Aware	Aware	Unaware	
Male	0	62	5	67
Female	0	15	18	33
Total	0	77	23	100

Source: Primary Data

Df= 2; critical value $\chi^2_{0.05,2} = 5.99$; $\chi^2 = 27.6754$

At 5% level of significance, the critical value obtained from the chi-square table is $\chi^2_{0.05,2} = 5.99$. χ^2 is calculated as 27.6754, which is more than the tabular value and falls in the rejection region. Hence, the hypothesis is rejected. Therefore, it can be concluded that there is significant difference between gender of sample respondents and the awareness level of farmers about crop insurance.

Table 8. Educational Status And Awareness Level

Educational status	Awareness level			Total
	Well Aware	Aware	Unaware	
Less than 10 th Std.	0	14	34	48
Between 10 th to 12 th	0	8	13	21
Graduation	8	11	7	26
Post- Graduation	5	0	0	5
Total	13	33	54	100

Source: Primary Data

Df= 8; critical value $\chi^2_{0.05,8} = 15.50$; $\chi^2 = 56.0998$

At 5% level of significance, the critical value obtained from the chi-square table is $\chi^2_{0.05,8} = 15.50$. χ^2 is calculated as 56.0998, which is more than

the tabular value and falls in the rejection region. Hence, the hypothesis is rejected. Therefore, it can be concluded that there is no significant difference between educational status of sample respondents and the awareness level of farmers about crop insurance.

Table 9. Farm Experience and Awareness level

Farm Experience	Awareness level			Total
	Well Aware	Aware	Unaware	
Less than 5 yrs.	0	11	21	32
Between 5 to 10 yrs.	0	14	16	30
More than 10 yrs.	5	12	21	38
Total	5	37	58	100

Source: Primary Data

Df= 4; critical value $\chi^2_{0.05,4} = 9.48$; $\chi^2 = 9.75946$

At 5% level of significance, the critical value obtained from the chi-square table is $\chi^2_{0.05,4} = 9.48$. χ^2 is calculated as 9.75946, which is more than the tabular value and falls in the rejection region. Hence, the hypothesis is rejected. Therefore, it can be concluded that there is significant difference between farm experience of sample respondents and the awareness level of farmers about crop insurance.

Findings of Secondary Data:

1. After analysing secondary data, it has found that government of India is working for the benefit of farmers by providing insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests & diseases through Pradhan Mantri Fasal Bima Yojana scheme.
2. For stabilising the income of farmers for their continuance in farming, PMFBY scheme ensuring farmers the flow of credit to the agriculture sector.
3. Under the PMFBY & RWBCIS, a uniform maximum premium of only 2% will be paid by farmers for all Kharif crops and 1.5% for all Rabi crops. In case of annual commercial and horticultural crops, the maximum premium to be paid by farmers will be only 5%.
4. The premium rates to be paid by farmers are very low and balance premium will be paid by the Government, to be shared equally by

Central and State Government, to provide full insured amount to the farmers against crop loss on account of natural calamities.

5. Government has introduced 0% interest crop loan for farmers for a period of one year.

Findings of Primary Data:

1. It is found that majority of farmers are aware about facility of crop insurance provided by insurance company.
2. They are also aware that Co-operative bank like The Amravati District Central Co-operative Bank is a mediator to provide the facility of crop insurance.
3. Farmers are also aware that taking insurance mitigate risk.
4. Level of awareness in respect of Pradhan Mantri Fasal Bima Yojana is more than the researcher's expectation.
5. Many of the farmers are unaware that while taking loan, the bank itself takes out crop insurance for their crop if they have account in co-operative bank.
6. They are also unaware that if they are non-loanee, then it is their willing to take out crop insurance.
7. Farmers are unaware that the bank adds the crop insurance premium to your loan amount.
8. Majority of the Farmers are aware that crop insurance can be taken out only in the time given by the government.
9. Maximum number of farmers are aware about crop is insured for the specific period of time
10. Many respondent farmers are aware that Insurance company accept claim against failure of crop only if it occurs during given specified period.
11. Almost 90% of the respondent farmers are unaware that 30% of the premium amount of crop insurance is paid by Central government.
12. Similarly, they are unaware that Out of rest 70%, 50% of the premium amount is paid by State Government.
13. Farmers are aware about that there is no interest charged if the loan is repaid in the financial year it is taken out.
14. Farmers are completely unaware that the insured amount of the crop is available only after the subsidy is deposited from both the governments.

15. 95% of the respondent farmers are unaware about the benefits of PMFBY scheme, process of claim, time period for claim settlement, and calculation of loss by insurance company.

Conclusion:

It has been revealed that the factors like access to loan, mitigation of risk, in which a farmer is located have significantly influenced the adoption of crop insurance. Farmers face constraints like tedious and time-consuming procedure, non-availability of crop loan, lack of motivation and information from officials, etc. On the other hand, the agencies implementing crop insurance expressed that lack of staff, lack of coordination among them and hindrance to their routine functions were the major constraints.

From the foregoing analysis, that the implementation of crop insurance is the need of the hour. Despite various schemes launched from time to time in the country agricultural insurance has served very limited purpose. The coverage in terms of area, number of farmers and value of agricultural output is very small, payment of indemnity based on area approach miss affected farmers outside the compensated area, and most of the schemes are not viable. Agriculture in India is not just reliant on weather conditions, but also suffers the impact of natural disasters. The study revealed that government is trying to help farmers to reduce their risk and losses related to crop failure but farmers do not have information on the schemes and principles of insurance. A programme of creating awareness and insurance literacy among farmers should be prepared by insurance companies and banks, in collaboration with the concerned State governments. The progress of these activities should be reviewed at the State and district level, on a quarterly basis.

Recommendations:

In the light of the present findings, the following recommendations are made for the improvement of crop insurance:

1. Proper awareness of crop Insurance schemes and procedure to buy policy should be created.
2. All crops need to be covered to make it a strong risk mitigating tool.
3. Indemnity payment should meet the loss incurred and it should not be negligible amount.
4. Procedure to purchase Crop Insurance should be made easy and at farmers door step or nearest place

5. It is suggested that the Insurance companies and Government should take necessary steps to improve the awareness among the farmers.
6. The farmers should be made aware of the various insurance schemes for which adequate publicity / extension support should be provided by the state governments.
7. To introduce a comprehensive scheme and coverage so that farmers will be given the insurance cover in respect of the crops of their choice, be they cotton, sugarcane, cashew nut or chilly.
8. Good awareness creation and providing crop insurance at their familiar places like gram panchayat, credit cooperative societies and post offices will increase the percentage of farmers using crop insurance.
9. Communication on time to farmers regarding purchasing crop insurance dates on media like television, radio, road shows will help in creating awareness.
10. Indemnity level for crop insurance need to be increased so that more farmers will opt for the same.
11. The Insurance companies and Government should take necessary steps to improve the satisfaction level of farmers by taking proper steps to increase the crops coverage, area Approach, Reduce the premium rate and reduce the formalities in claim etc.
12. Insurance coverage could increase if lower premium is charged for irrigated crops and for farmers who adopt better farming practices.
13. There is a need to educate farmers on how insurance schemes operate. Farmers are not favourably inclined towards WBCIS.

If the above suggestive measures are adopted by the Insurance Companies, it is hope that more farmers will come forward to insure their crops and in event of loss of any crops, farmers will be more benefited and undoubtedly farmers' economic condition will be improved.

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09

Strengthening Community through Cooperatives (A case study of Veling, Priol & Kuncolliem Villages of Ponda Taluka- Goa).

Naik Vidisha V., Gaonkar Sadanand *

Abstract :

Co-operation occupies an important place in the Indian economy as there is almost no sector left untouched by the co-operative movement. The main areas of operation of co-operatives in India are agricultural marketing, agricultural credit, agricultural processing, fisheries, poultry, dairy farming, consumer co-operatives, industrial co-operatives, urban credit co-operatives, housing co-operatives, and so on. The concept of cooperation is based on a simple philosophy of human society, i.e. where men will be the happiest. A co-operative society is an organisation of a group of people with collective responsibilities and thoughts to develop the needy, especially underprivileged. The present study is conceptual & conducted in Veling, Priol, and Kunkolliem (VPK) villages of Ponda taluka in Goa. The research aims to identify the potential business areas where co-operatives can be established in VPK villages. Secondly, attempts to know the problems of Schedule Tribe (ST) & Fulakar community/samaj of VPK villages, & intends to propose a model for community development through co-operatives in VPK villages. Through this study, the researcher has identified the ST community and fulakar samaj as the area where community-based co-operatives can be established. Research revealed that the ST and fulakar samaj people have 'obtaining ownership rights over the land', which they use for cultivating vegetables and flowers as their primary problem. The researcher has also proposed a community-based co-operative model for the benefit and development of the ST & fulakar community. The study concludes that community-based co-operatives can be an essential tool for community development.

Keywords:

Co-operatives, Fulakar samaj, community-based co-operatives.

*Assistant Professor in Commerce Research Scholar
Government College of Arts, Science & Commerce Khandola Marcela - Goa.

Introduction to Co-operatives :

In the words of M. L. Darling, “Co-operation is something more than a system. It is a spirit, which appeals to the heart and the mind. It is a religion applied to business. It is the gospel of self-sufficiency and service”. The primary purpose of forming a co-operative is to meet mutual needs. Cooperation is based on the principle that ‘together a group of people can achieve goals that none could achieve alone’ (Dogarava, 2005). As H. Calvert defines it as “a form of organisation in which persons voluntarily associate together as human beings based on equality to promote the economic interest”. The co-operative movement in India was formally launched in the year 1904 (Sahoo, 2020). It has persistently played the role of a catalyst in developing the economy, especially in supporting small, marginal, and weaker sections of society. The inherent strengths of co-operatives are the ability to tackle economic problems such as poverty alleviation, food security, and employment generation. Being instrumental in delivering goods and services in areas where the public and private sector both have failed is yet another unique characteristic of co-operatives (Wankhede, 2015). Co-operatives are found in almost all countries (Kimberly Z, 2005). There is a phenomenal expansion of co-operatives in nearly all sectors as far as India is concerned. The different types of co-operatives based in India are production co-operatives, including farming co-operatives, industrial co-operatives, and processing co-operatives. Marketing co-operatives that focus on marketing agricultural products include consumer co-operatives and agrarian marketing societies. Service co-operatives are engaged in the rendering of necessary services to the members such as co-operative credit society, co-operative banks, housing co-operative societies, and allied service co-operatives which deal with activities needed for daily life and business of the agriculturists, artisans, and so on (Sahoo Alok, 2020).

Co-operatives are the organisations that enhance the development of small communities. (King R, 2007). They are the associations that address local needs, employ local talents, and are led by local leaders. Thus, Co-operatives can be used as actual vehicles for community development as they can mobilise local resources into a critical mass. The democratic structure of co-operatives as well allows them to be more community-oriented.

1.1 Cooperative Movement in Goa :

The Cooperative movement in Goa was initiated to eliminate ordinary

people's vested interest and exploitation. The Co-operative movement was launched in 1962 in the erstwhile union territory of Goa Daman and Diu. The launch of the Co-operative movement in Goa was the only source for Government to achieve the objective of eradicating poverty and equitable distribution of wealth. It was the only weapon in the hands of the Government through which it could undertake the activities conducive for the upliftment of weaker sections of society. In the initial years, the movement was restricted to service, consumer, sugar factory, and urban co-operative banks. However, with time the movement grew and covered the entire state of Goa. In Goa, co-operatives are spread over to different sectors, to name a few Agricultures, Housing, credit, consumer, dairy farming, transport, fisheries, and even multipurpose co-operative societies. In 2001, the Government of Goa enacted the Goa Co-operative Societies Act, 2001, and The Goa Co-operative Rules 2003, which formally came into force from 26.01.2008 onwards. Under the new Act, the status of the autonomous body was given to the co-operatives of the state.

1.2 Community Development (CD) :

Community Development is the process wherein members belonging to one community join together for collective action to find out a solution for a common problem. This phenomenon considers the community members as their community experts and accordingly values the community knowledge. The main aim of community development is to empower the community's individuals with the skills they require to effect change within their communities. Stajduhar Kelli (2008), in her study, has referred to CD as a process of community mobilisation through cooperation and collaboration to secure effective community-based action & change. Chavis & Florin (1990), in their study on community development community participation, defined CD as ` a process of voluntary cooperation and self-help/mutual aid among residents of a local aimed at the improved physical, social and economic conditions. Majee Wilson (2011), his study, opined that community development within a community should actively involve community members and strive to meet their needs. (Stoecker Randy (2013) has defined CD in different circumstances. According to him, community development can be practised as a generalised approach. It consists of empowering the community members to create basic infrastructures, like the provision of water, electricity, development of housing, and commerce. His second view is that CD can also be practised as a highly specialised approach that will only focus on rehabilitating housing in the neighbourhood. He says CD may only concentrate on small business

development in another context. In yet another perspective author says CD includes community organising. Where in CD will focus on capacity building of community residents to define their issues, collect resources to address those issues, and work on solving them.

1.3 Co-operatives: Strategy for Community Development :

Co-operatives are considered viable vehicles to achieve the goal of community development. In their research work, Kimberly Zeuli and Jamie Radel (2005) discussed how co-operatives could be used as a strategy under three contemporary community development paradigms: Self – Help Community Development Model and Asset - Based Community Development (ABCD) Model, and Self–Development Model.

Under self - help community development model, the community members are at the centre with two goals: to achieve quality life and the second to increase the community's internal capacity to create further positive change. The asset-based community development model is a two-fold model. The first phase involves identifying community resources, and the second phase consists of planning to mobilise those resources for the benefit of the community. The third model is the self-development community model. It seeks to accomplish complete internalisation by eliminating the role of external agents. Here, the self-development efforts operate for the benefit of the whole community. The work of Kretzmann and McKnight (1993) also discusses Asset-Based Community Development. According to the authors, the ABCD model identifies and uses the strengths, gifts, talents, and resources that communities can mobilise for sustainable development. A research work done by Syarifuddin Nurdiyanah et al. (2017) also highlights the ABCD model. The author says it's a two-step process. The first step is identifying strengths in the community through Focus Group Discussion and Appreciative Interviewing. The second step includes the mapping of assets in the community.

2. Review of Literature :

In his research, Luigi Mastronardi et al. (2020) investigated the potential contribution of new entrepreneurial models based on co-operative principles to the growth of Italian inner areas. Researchers have analysed the text using content analysis and sentiment analysis. The study concludes that Community-Based Co-operatives (CBC) contribute to revitalising internal neighbourhoods and community empowerment. The author stressed that CBCs are the fundamental actors transitioning towards a new

kind of origin. **Hossain Md. Afjal & Uchinlayen (2018)** aimed to study and identify rural community-based tourism development prospects and problems in Bangladesh. Conceptual and qualitative analysis has been conducted through available secondary sources. The study revealed some barriers in rural tourism development, such as the community's inability to develop rural tourism, lack of investment and entrepreneurial activity, lack of safety and security, underdeveloped infrastructure, etc. In addition, some significant suggestions provided in this research were the provision of sanitation and hygiene food, sufficient training, electricity, telephone, etc. The study concluded that if the proper marketing plan is followed, it could bring more benefits to the country. **Mohammad Nor et al. (2013)**, this research was conducted in Batu Puteh, Kinabatangan region in Malaysia. Through this research, authors have highlighted how community co-operatives can be used for community-based tourism programs. This research discusses the initiative of local youths of Malaysia in setting up a community-based tourism project called a model of economically sustainable community tourism (MESCOT). The study revealed that a community co-operative could effectively manage local people's economic, socio-cultural, and environmental concerns. **Giampiccoli Andrea et al. (2012)** this research work highlighted how community-based tourism can be used as a strategy to develop poor communities. The author believes that tourism is always well situated in remote areas populated with people from poor backgrounds who share distinct cultures and have natural settings. Further, it proposed that specific cultural contexts should be valued as a pivot around which CBT and other development strategies can be established. **Zeuli Kimberly et al. (2012)** this research includes various case studies of non-agricultural co-operatives in rural areas, providing insights into some innovative activities of successful co-operatives in rural community development. According to the authors, the relationship between co-operatives and communities is complex. Authors are of the view that co-operatives can play numerous roles in the process of the development of a community. **Majee Wilson & Hoyt Ann (2011)**, in their research paper titled "co-operatives and community development: A perspective on the use of co-operative development", has applied the social capital and poverty transition model that demonstrate the development potential of co-operative business. This conceptual paper suggests that co-operative can be an effective participatory strategy that will help bootstrap low-income people into the socio-economic mainstream rather than business structures operating in these communities. **Aref Fariborz & Gill Sarjit S. (2009)** has studied the qualitative approaches that develop rural tourism through

rural co-operatives. The study also attempted to highlight the barriers to rural tourism in Iran. It was observed that Iran has the potential to develop rural tourism but is still at its nascent stage. The main critical approach suggested in the study is the development of rural tourism through rural co-operatives with its major essential factors of success. **Zeuli Kimberly et al. (2005)**, through this conceptual research, authors attempted to introduce co-operative development as a strategy that will complement the contemporary community development model. They concluded that co-operatives could be established in every economic sector as they can solve local problems by mobilising local resources. However, the study stressed the need to consider the co-operative model's potential benefits and costs carefully.

3. Identification of Research Gap:

For the present study, an extensive review of the literature was carried out concerning i) Community Development, ii) Rural Co-operatives, iii) Tourism Co-operatives, and so on, and thus it was realised that few researchers such as Zeuli Kimberly et al. (2005), studied co-operatives as a community development strategy. Mastronardi Luigi et al. (2020) studied community-based co-operatives as a new business model for developing inner areas in Italy. Stajduhar Kelli (2008) has examined the process of community development, whereas Syarifuddin Nudiyanah (2017), Kretzmann John et al. (1993), has applied the Asset-Based Community Development (ABCD) model. In his research, Chavis David (1990) discussed the various concept of community. On the other hand, Vieta Marcelo (2015) studied the concept of community & a co-operative advantage for co-operative development. Nor Haniza Mohamad et al. (2013) studied tourism co-operatives for scaling up community-based tourism. Gill Sarjit (2009) Onur Akturk (2021) attempted to study rural tourism through rural co-operatives. Ryan Gibson (2005) tried to understand the role of co-operatives in community economic development. Meseret Tamir (2015) attempted to study the challenges and opportunities of Community-based Tourism Development in Awi Zone through a case study approach. Giampiccoli Andrea (2012) tried to relate community-based tourism and local culture. Zeuli Kimberly et al. (2004) studied co-operatives in rural community development; Hossain Afjal et al. (2018) studied rural community-based tourism development in Bangladesh.

Through a thorough review of literature, it was found that most of the studies on 'co-operatives as a strategy for community development' are done in foreign countries; however, no such research seems to be done in

Goa. Community development through cooperation in Goa is just in the nascent stage compared to other states & countries. Goa is India's smallest state, with its maximum percentage of population residing in rural areas. People of the state belong to different casts & creeds. They are very close to their culture, and a considerable amount of the population has agriculture, vegetable cultivation, and selling as their occupation. It was observed that the communities, especially those engaged in such activities, are lagging in earning their primary income. It was also felt that, from the perspective of development & empowerment of these communities, community development through co-operatives could be a powerful tool. Thus the researcher has selected the resourceful villages of Goa, namely Veling, Priol, and Kuncoliem (VPK) villages, for the present study. Based on this study, the researcher will also try to propose a model which will help those communities in the growth and success of their businesses.

4. Research Questions:

- a) What can be the potential business areas/ communities where co-operatives can be established in Veling, Priol & Kuncoliem villages?
- b) What problems do the members face in those selected communities in Veling, Priol & Kuncoliem villages?
- c) What can be potential business models for establishing community-based co-operatives for the community development in Veling & Priol & Kuncoliem villages?

5. Objectives of the Study :

- a) To identify the potential business areas where co-operatives can be established in Veling, Priol & Kuncoliem villages.
- b) To know the problems of Schedule Tribe (ST) & Fulakar communities of Veling, Priol & Kuncoliem villages.
- c) To propose a model for community development through co-operatives in Veling, Priol & Kuncoliem villages.

6. Research Methodology :

The present research work is conceptual. The research is conducted in the Veling, Priol, and Kuncoliem villages of Ponda Taluka. Qualitative analysis is carried out through observation and the unstructured interview method to get a correct picture of the study. Respondents for this study are the people who belong to the Scheduled Tribe (ST) community and Fulakar Samaj, i.e. the people presently growing & selling vegetables & flowers.

Data was collected by interviewing 20 respondents who represented ST and Fulakar communities. Respondents were asked different questions relating to their business activities, problems, needs, culture, opinions about community development, co-operative and tourism development, etc. An attempt was also made to understand the culture they follow so that researchers can relate the story of these communities and the mechanism of co-operatives—the interviews were conducted in November 2021. Besides the unstructured interview, the data was also collected from various secondary sources such as websites, research papers, and news articles.

7. Results & Discussion:

7.1. Establishment of Co-operatives In VPK Villages of Goa.

Goa is the tiniest state of India and is referred to as the jewel in India's crown (Kamat Smita). Goa is famous for its scenic beauty, mesmerising beaches, and also blessed by innumerable sacred places of worship, beautiful temples & churches, chapels, monuments of historical importance. Some world heritage sites like old Goa are also based in Goa. Though tourist season begins in the latter half of August and continues till the first week of June in the next year, Goa is relentlessly visited by foreign and domestic tourists for 365 days. In recent years more positive responses have been shown by domestic tourists. The state of Goa consists of 12 talukas having 411 villages. Panaji is the state's capital & Margao, Vasco & Mapusa are its main cities (D'Mello Carmelita). Konkani is the native language of Goa. Yet another appealing characteristic of Goa is its cultural heritage, which is a blending of east & west. People of different religions, castes & creeds live in harmony in Goa (Kamat Smita).

Ponda taluka lies in the centre of Goa. As per the census 2011, there are ten small towns and 22 villages in Ponda taluka. The central city Ponda is an educational hub of Goa, as many educational institutes such as Goa Engineering College, Indian Institute of Technology Goa (IIT), National Institute of Technology (NIT), GVM's Dr. Dada Vaidya College of Education, Rajaram & Tarabai Bandekar College of Pharmacy, Shree Bharatiya Sanskriti Prabodhinis Gomantak Ayurveda Mahavidyalaya & Research Centre Shiroda and many other more educational institutions are based in Ponda taluka. Ponda is also home to three major industrial estates. Besides this, Ponda is also famous for temples, unique culture, music, and drama, and therefore it is also known as "Antruz Mahal of Goa".

Velang, Priol & Kuncoliem (VPK) villages in Ponda taluka in the south Goa district. All these three villages come under VPK panchayat, located in

village Priol, at a distance of 10 kilometres away from sub-district Ponda and 20 kilometres away from the capital city Panjim. These 3 villages are divided into 11 wards. The total population of these villages is 11,470. Veling, Priol & Kuncoliem towns can be referred to as “Green Villages” of Goa, as they are very close to nature. In these villages, there are many Kulagars and more than 35 springs. Some of the most prominent temples of Ponda taluka are also situated in these villages, such as Shri Manguesh Devasthan at Mangueshi (Priol), which is also an international tourist spot, Shri Mahalasa temple at Mardol, and Shri Balaji temple at Kunkalim, Shri Narsimha Temple and Shri Shantadurga Shankhwaleshwari devasthan at Veling. These temples are visited by a pretty reasonable number of foreign tourists and many domestic tourists.

In terms of local communities based in these villages, Scheduled Tribes (ST) and Other Backwards Class (OBC) were found to be with a maximum percentage of 38.92% & 32.73% (As per village panchayat), respectively, as compared to other communities. The Scheduled Tribe community people residing in these villages have their primary occupation such as agriculture & horticulture, as they are engaged in activities of Kulagar, growing and selling of vegetables like amaranth leaves (Tambdi Bhaji), Ridge guard (Ghosali), Ashguard (Kuwalo), Cucumber (Tanvashi), ladies finger (Bhendi), Breadfruit (Nirphanas), Coconut, Erica nut and so on. They also grow different varieties of fruits such as Musk melon (Chibud), Pineapple (Ananas), Banana (Keli), etc.

On the other hand, agricultural activities are also carried out by OBC Community. Besides agricultural activities, the top portion of this community has their traditional occupation of growing and selling the flowers, like Golden Champa (Son chapha), *Crossandra infundibuliformis* (Aaboli flower), Kevada, *Gardenia jasminoides* (Ananta flower), *Barleria* flower (Gotla) among these speciality being Jayee flower commonly known in Goa as JAYO” (Season from mid of June till the end of September). Besides growing these flowers, many are also engaged in small business activities like making different types of attractive garlands & gajaras out of these flowers. Many families also make a flower or floral jewellery used on baby showers (Dohalejevan / Fulaan). Nowadays, such floral jewellery is also used by new brides during their haladi ceremony. Since growing and selling flowers is the main occupation of this community, they are also referred to as “Fulakar Samaj”.

Several factors may potentially affect the success of the community development process through co-operatives. Before implementing the community development process, it is advisable to understand the areas required for community development. Therefore in the present study researcher has identified two communities, namely the ST community and Fulakar samaj, for community development through co-operatives. At the same time, when the community is organised, understanding the problems faced by the community is also equally important. As those problems can hinder the progress in responding and recognising the priorities of local communities, such understanding can help individuals and the community more effectively. Therefore, the researcher has also attempted to identify the problems faced by the communities in these villages for community development.

7.2. Problems Faced By ST & Fulakar Samaj

Through the unstructured interviews held with the members of the ST community, it was observed that there are many families from this community who are involved in the activities of growing and selling vegetables. However, these vegetables are grown only in the rainy season, and otherwise, the land remains idle. After the rainy season, whatever business of selling vegetables is done, they buy those vegetables from other vendors in the market. This activity renders them most of the time with fewer profits.

Secondly, it was also identified that the land they use to cultivate these vegetables and, in some cases, even for agriculture, does not belong to them. The villagers do not possess any legal evidence as far as ownership rights of the land are concerned. It was also revealed that the land belongs to the landlords/bhaktas. According to the respondents, the problem of ownership of land is their primary problem. Conversations with the representatives of Fulakar samaj revealed that they also face a similar situation, as they are also engaged in cultivating jayee flowers. Cultivation and then sales of Jayee flowers in July, August & September earn a considerable income for this community. To get the best output, efforts are required, and the community members put the flawless efforts to get the best crop. However, Fulakar samaj also faces the same central problem, i.e. obtaining the ownership right over the land. The land the cultivators use belongs to landlords, and some portion is also the property of 'Our lady of Piety' church authorities, Mardol. One of the fulkars said that 'in previous years attempts were made to obtain ownership rights on the land, but they

were ultimate of no use. Jayee flowers are cultivated only during the period from June to September. This makes flower 'Jayee' a seasonal crop. Since for years together, they have been using the land for cultivating Jaycee flowers, so they are just allowed by the landlords and the church authorities to use the land only during that particular season from June to September. After the season, the land is idle. Interviews and the conversation with the community members also revealed that some of the community members also face financial constraints. The other problems these communities face are lack of formal education & proper training, community lack of investment & entrepreneurial abilities & lack of awareness about community development.

Researchers also attempted to understand the traditions and the culture of the communities residing in these three 'Green villages', namely Veling, Priol & Kuncoliem. It was observed that the villages are the reservoirs of various talents, cultures, and traditions. It was revealed through the conversations that as a part of their traditions and culture, the villagers were involved in different folk songs and folk dances like Golf, Jagor, Musal, etc. They also possess a good amount of knowledge and expertise about how these folk dance forms can be performed. However, it was found that they are still not ready to involve themselves in tourism activities.

7.3. Community Development through Co-operatives :

Co-operatives are the instruments to gather people and pool the limited resources to gain the power to participate in community development (Majee Wilson, 2011). It is a proven fact that co-operatives help promote the interest of less powerful members of society. On the other hand, community development is the process of engagement within the community. This process may be divided into four aspects. a) Citizen action, b) voluntary participation, cooperation, and collaborative problem-solving. c) empowerment & d) focus on holistic and communitywide outcomes (Lindsey E. 2001). Community development includes empowerment of community members, and co-operative fosters participation of community members. Thus, active and willing participation will empower community members, nothing but community development. Therefore, establishing a co-operative based on communities can be a strategic move to bring community development in ST and fulakar communities of VPK villages. As said earlier, in community development, the entire focus is on the capacity building of community members. Thus, it includes defining and understanding their problems, gathering the resources to address them, and

working on solving them. This capacity-building practice can also be called ‘Community Organizing’ (Stoecker Randy (2013)).

Community organising and co-operatives can work together, and output can be ‘community development. For the community organising process, the primary requirement is a community organiser. Community organisers are the leaders or experts in securing community participation. They know how to get the people together for meetings & how to organise them for actions. They are well versed in the process of negotiation with power holders for policy changes. Accordingly, they match their skills with the necessary policy changes.

Thus the researchers propose the following Community-Based Cooperative Model:

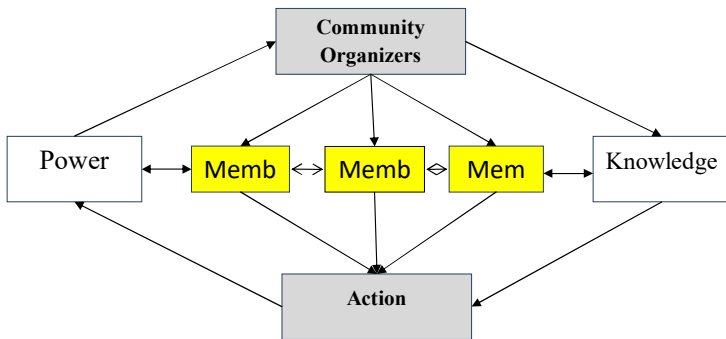


Figure: 1. Community-Based Cooperative Model for ST Community and fulakar community of VPK villages

From the above model, the researcher has attempted to show how community-based co-operatives can be formed and how they can lead to an effective community development process. For effective community development within a community, community members should be proper involvement and participation. They are securing the participation of community members maybe sometimes be challenging. Therefore, a community organiser is essential. He may be a person or a small group of people. The community organiser plays the role of bringing the community members together. Therefore, the model depicts how the community organiser can secure community member participation. It is shown with the interlinked arrows. It shows the formation of a community-based co-operative. The members of this co-operative will be individuals from the ST

community & fulkar samaj. The interlinked arrows indicate the exchange of information and knowledge between the community organisers and the co-operative members. The exchange of information will take place through various meetings and discussions, which will generate more knowledge. Further, the knowledge generated will engage them in more effective action and ultimately make them more powerful. The outcome of this entire process will be the effective development of the ST community & fulkar community/samaj of VPK villages.

7.4. How Knowledge, Action & Power will work in VPK?

Figure 1. exhibits how ST and fulkar community members of VPK can come together to form a co-operative. Once they come together, they can be encouraged to participate in the discussions over these communities' various problems and issues. More importantly, the major problem is obtaining ownership rights over the land they use to cultivate vegetables and Jayee flowers. More than solving this issue individually, it is advisable to fight for it being united, which is possible through the co-operative mechanism. If they successfully obtain the rights, they can cultivate the land throughout the year. This will be a significant source of revenue for the members.

Further, this co-operative will benefit the community members to solve their other problems like the problem of finance. Collectively i. e co-operative, training and education programs relating to modern farming and cultivation methods can also be organised for the benefit of community people. Through various co-operative programs on building entrepreneurial skills can be collected for the community people, which will also benefit the youngsters of these communities.

Further co-operation can also help this community develop rural tourism in VPK villages. "Any form of tourism that showcases the rural life, art, culture, and heritage at a rural location, thereby benefitting the local community and enabling the interaction between the tourists and locals for enriched tourism experience is rural tourism (Fareborz A. 2009). As discussed above in this research paper, the people of the ST community and the fulkar samaj in VPK villages are well versed in some folk-dance forms. Through co-operatives, even this knowledge can be shared within the community people. A group of youngsters from these communities may be formed and trained by other knowledgeable, senior members to perform traditional or folk-dance forms such as Golf, Dhangar dance, Musal, Fugdi, etc. Through co-operatives, this group may undertake different tourism

activities. For example, they can organise some paid folk dance shows consisting of Golf (Ribbon dance), Musal dance, Fugdi, or any other stage show through which Goan culture can be exhibited. This can also be a new source of income for them. Cooperative can also take the initiative of performing such paid stage performances at other famous tourist destinations of Goa.

8. Conclusion :

VPK villages in Ponda taluka of Goa are enormously blessed by the nature god. The present research is an attempt towards community development of these villages through the mechanism of co-operatives. The researcher has selected ST and fulakar samaj as the areas to establish co-operatives. An attempt was made to understand the problems of these communities. The study revealed that these communities' primary concern is obtaining rights over land ownership. This research has proposed a community-based co-operative model, which shows the establishment of co-operatives through community organising. It also shows how knowledge can lead to effective action and result in community empowerment and development.

Thus, this research concludes that co-operative can be an effective tool for a thriving community development process. It brings in community participation, plays a significant role in shaping the community, and provides an economic boost to the community.

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Role of Farmer Producer Companies (FPCs) in Strengthening Farmers Income through Collective Action

M. Ragubalan, Dr. C. Pitchai and Dr. S.V. Akilandeswari

Abstract :

The Farmer Producer Organisation is a concept derived to strengthen the muscels of the cooperatives in India. The main objective of the FPOs is to doubling the farmers income through collective farming action. The concept says that the collective action will create more bargaining power for the farmers and boost the economies of scale of the small and marginal farmers. Here the present study has examined, in practical the FPOs are doubling the farmers income through collective farming action or not. An FPO from Dindigul District, Tamil Nadu were taken as a sample of the study and both primary and secondary data collected for the study.

Keywords:

FPOs, Collective Action and Doubling Farmers Income

Introduction :

The concept of Farmer Producer Organisation is derived from the concept of Cooperation by eliminating the problems and lacks in the cooperatives and improves the economies of scale of the farmers. From the introduction of FPOs, it gave many promises to provide solutions to the problems and challenges of the farming community. The main functions of the FPOs are input supply, procurement, linkage of markets, transportation, training and export. The FPOs can be registered under State and Multi State Cooperative Societies Act, Companies Act, Trust Act and Societies Act. The present study concentrates on the role of select FPO in encouraging collectivisation and Doubling the Farmers Income.

* Research Scholar, Department of Cooperation ** Professor and HOD, Cooperation *** Guest Faculty, Department of Rural Industries and Management, The Gandhigram Rural Institute, Tamil Nadu, India

Background of FPOS :

In 1999, the Government of India constituted a High Powered Committee on Formation and Conversion of Cooperatives Business into Companies under the Chairmanship of notable economist Dr.Y.K.Alagh. Based on the recommendations of the committee, Producer Organisations was introduced in 2003 by amending the Indian Companies Act, 1956 and one of the concepts is Farmer Producer Organisations. (Dr.Y.K.Alagh, 2000) But after 2013, the government took significant initiatives to promote FPOs, especially the Policy and Process Guidelines for Farmer Producer Organisations was issued to form and function the FPOs under various forms such as Cooperatives, Companies, Trusts, and NGOs. Around 7000 FPOs are functioning in India in various forms till 2020 and the Government introduced a new central sector scheme called “Formation and Promotion of FPOs” on 29th February 2020 with the budget allocation of Rs.6,866 Crore to form 10,000 new FPOs in India. (Bhagwat, 2020)

Objectives of the Study :

- To Study the working of the select Farmer Producer Organisation.
- To Examine the role of the select Farmer Producer Organisation in Doubling the Farmers Income through encouraging the Collective Action

Methodology:

The Study concentrates the collective action practices of the VVG Collective Farm Producer Company Limited, Vedesandur, Dindigul, Tamil Nadu. Focused Group Discussion conducted with 20 members of the FPC to collect data. Both primary and secondary data were collected for the study. Primary data collected through observation and employing Interview Schedule and secondary data collected from the books and records of the FPO.

Profile of the Select FPO :

The VVG Collective Farm Producer Company Limited (VVG FPC), Vedesandur, Dindigul, Tamil Nadu was registered and commenced its business on 14th February 2020. This FPO is promoted by the Tamil Nadu Small Farmers Agri business Consortium (TNSFAC). TNSFAC is a mandatory agency formed by the Government of Tamil Nadu to form and function the FPOs in Tamil Nadu. As on 30th November 2021 the FPC functioning with the membership of 702. The FPC covering the district blocks such as Vedesandur, Vadamadurai, Kujiliamparai and Palayam

and concentrate on Vegetables, Paddy, Groundnut and Millets which are cultivated in that business area.

Services provided by the FPO to strengthening the farmers income :

In the Moto of Doubling the Farmers Income initiated by the Government of India, the FPOs are the key factor to eliminate the problems and challenges faced by the farmers and improve their income by provding needed aids. VVG Collective Farm Producer Company Limited providing the following services to improve the economies of scale of the farmers through collectivising the farmers especially the small and marginal farmers.

Cattle Feed Supply :

VVG Collective Farm FPC identified the demand of the cattle feed in the business area and started selling the cattle feed to their members and non members. Already there are some private shops selling the cattle feed with higher rates and the farmers have to spend the transportation cost to purchase the cattle feed. In view of that the FPC decided to start the cattle feed selling business to their members and non members.

Table 1 : Cattle Feed Supply

Year	Purchase Rs.	Sales Rs.	Benefit to the Farmers per bag Rs.
2020-2021	1,25,000	1,55,250	50-100
2021-2022 (Upto November 2021)	93,000	1,22,240	

The above table shows the cattle feed supply of the FPC during 2020-2022 (Upto November 2021). The FPC rightly identified the need of the cattle feed supply and successfully doing that business. Compare to other private shops the farmers can save Rs. 50 to 100 per bag of cattle feed including transportation cost. The FPC directly delivering the cattle feed to the farmers villages who needed the cattle feed. This service safeguards the farmers from the private shops and reduces the production cost of milk.

Procurement And Marketing of Groundnut :

In the business area of the FPC, the groundnut is a major crop cultivated by the farming community especially the members of the FPC. Before the

commencement of the FPC the intermediaries are the persons exploiting the farmers in purchasing the groundnut with very lower rate as much as possible. The intermediaries will reduce their commission and transportation cost from the selling cost of the produce. Now, the FPC procuring the groundnut from their members by the market rate. The FPC eliminated the role of intermediaries in the procurement process and bearing the transportation cost. Now, the farmers are getting Rs.150 extra income per bag by avoiding the intermediaries commission and transportation cost as mentioned in table 2. By procuring the groundnut in market price the FPC also raised a good income.

Table 2 : Procurement And Marketing of Groundnut

Year	Purchase Rs.	Sales Rs.	Benefit to the Farmers per bag Rs.
2020-2021	4,50,000	5,20,000	150
2021-2022 (Upto November 2021)	2,80,000	3,05,000	

Procurement And Marketing of Vegetables :

The vegetables like Tomato, Brinjal, Ladies Fingure, Guards, Moringa and Onion are the major vegetable crops of the members of the FPC cultivating around the business area. Before the commencement of the FPC the farmers has to take their vegetables to Dindigul or Oddanchatram Markets to sell their produces. In the market the farmers will sold their produces in the commission mandis and the commission will reduce the right income for the produces of the farmers. Now the FPC procuring the vegetable produces from their members without commission and the FPC procuring the vegetables from the agricultural fields of the members. The members also save the transportation cost to market their produces.

Table 3 : Procurement And Marketing of Vegetables

Year	Purchase Rs.	Sales Rs.	Benefit to the Farmers per kg Rs.
2020-2021	86,254	92,254	10-30
2021-2022 (Upto November 2021)	46,245	54,000	

The FPC sold the procured vegetables in the weekly markets functioned in Vadamarurai, Kujiliamparai and Palayam towns. When compare to

cattle feed and groundnut, FPC not getting stable or good income from the vegetable marketing. Anyway the FPC continuing that service to the welfare of the members. By selling the vegetables to the FPC the farmers can gain Rs.10 to 30 more profit per kilogram.

Training Programmes to the Membrs And Board of Directors :

The VVG FPC conducted training programmes to both their members and Board of Directors. The FPC has taken 50 members to Erode, Pudukottai, Kobichettipalayam, Coimbatore and Tanjore to visit the successful farming methods and FPOs. After the visit, all the members together and share the information about the visit. The farmers told that the visit helps to learn new cultivation methods and agro technology adoption to increase the production and reduce the production cost. The members also started adopting the learning from the visit.

The FPC conducted the Capacity Building Training Programmes to all the Board of Directors. The training programmes conducted on market linkage, value addition practices and agro technologies.

Consultation :

The VVG FPC providing consultation service to their members for market information, profitable crops, technological aids and crop deceases. The FPC not charging any fee for the service of consultation. To providing the consultation to the members, the FPC having collaboration with Tamil Nadu Agricultural University and KVKs. The farmers felt that the service of consultation help them to get immediate opinion from the FPC related to their agricultural activities.

Problems And Needs of the FPC and suitable suggestions :

with the available resources the VVG FPC extending commendable services to their members and also the non members. To provide more services to the members, the FPC have following problems and needs.

Complex procedures to avail Governmental support and schemes :

The time and procedure to avail the schemes and support of the government and promotion agency is higher and complex. The FPC preparing a proposal for an activity and apply for finance or infrastructural support. After the approval of the proposal, delay will be happening to sanction the amount. Meantime the FPC arranging credit from the financial institutions and the

interest is an extra burden to the FPC. To solve this problem the government should make necessary budget allotment to the schemes of FPOs.

Members Poor Participation :

Maximum of members of the VVG FPC are not loyal to the FPC. When the procurement cost is higher, they directly sold their produces in the market. If the price is low, they request the FPC to procure all their produces. To avoid these problem the FPC give awareness programmes on members participation to their farmer members. If the business performance of the FPC increases, the members also can gain more dividends from the FPC.

No Value Addition Practice :

The FPC planned to enter in to value addition process in future with the help of promotional agency. It will help the FPC to procure more from the members and also improve the business performance of the FPC. The FPC has to plan about the value addition of the members produces and secure the selling cost.

Input Supply Centre :

In Tamil Nadu, many FPOs are having Input Supply Centres to sell the quality fertilizers, pesticides, manures and seeds to the members with reasonable cost. The agricultural inputs are mandatory to the farmers for their cultivation. The VVG FPC is viable to start this business by investing from the share capital of the FPC.

Higher Management Cost :

When compared to Cooperatives, FPCs management cost is higher. Especially, the FPC should have a accountant for the company and every year the audit should be conducted by the chartered accountant. The FPC spending 40 per cent of their turnover for this process. The FPC need aids from the government to bear the expenditure of the audit.

Future Plans of the VVG FPC :

In future, the VVG FPC planning to setup a groundnut oil extraction unit, moringa seed oil extraction unit and moringa leaf powder. The FPC planned to utilize the equity grant capital from the government and first start the groundnut oil extraction unit. Based on the business performance the FPC planned to enter into moringa seed oil extraction unit and moringa leaf

powder. And also the FPC planned to market their value added products with the help of Tamil Nadu Small Farmers Agri business Consortium.

Conclusion :

The study concentrated on both the FPC and their members to analyse the doubling farmers income through collective action. In that attempt the study found that the FPOs are viable institutions to reduce the production cost of the farmers and increase the income of the farmers. The increasing trend of the farmers is an indication to double the farmers income in the future. For that the FPOs should provide more services to their members with the view of doubling the income of their members. In that connection both Central and State governments should extend timely support in the form of finance, infrastructure, machineries and etc.

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Study of Strategies for Strengthening Credit Cooperatives

Pradnya Chari *, Relita Fernandes**

Abstract:

In India Credit cooperative society has a significant role to perform but now it also gaining importance in the state of Goa. Credit Co- operatives play an important role in the socioeconomic development of the people, they provide avenues for members to save regularly and then borrow for productive and welfare purposes. The main reason behind the unprecedented growth of credit cooperative societies are the ever growing and evolving saving mobilization strategies, business models and member retention techniques. This study is an attempt to examine the relationship between these aspects. Firstly, the study explores the effect of trust in the relationships among members and between members and management of the selected credit cooperative societies. When we talk about any credit cooperative society the first thing that comes to one's mind are the members involved in the society. Hence, the first objective of this study is to examine the impact of trust on cooperative membership retention, performance and satisfaction. Secondly, the research paper focuses on assessing the savings mobilization strategies and the performance of the cooperatives. The findings of the study will reveal that trust among members and between members and management is significantly correlated with performance and satisfaction as well as group cohesion of credit cooperative societies. The study also state that there is an impact of cognitive trust on performance and satisfaction, were as there is no impact of affective trust on performance and satisfaction and also there is a significant impact of cognitive and affective trust on the group cohesion, among the cooperative members.

Keywords:

Credit cooperative society, Marketing strategies, Member's retention

*Asst. Professor in Commerce **Research Scholar

Post Graduate Department of Commerce, Government College of Arts, Science & Commerce, Khandola- Marcela, Goa

1. Introduction :

A co-operative society is a voluntary association of individuals having common purpose of achieving common economic interest. It focuses on serving poorer sections of society through the principle of self-help and mutual help. Extant literature reveals that the people organize cooperatives for a variety of economic, social and political reasons. It is a satisfactory way of achieving individual and community objectives. Despite the existence of cooperative societies, there has been a long discussion on what constitutes cooperative practices and their role in promoting cooperative performance (Lawrence, Isa 2020).

A credit cooperative society is one form of a cooperative society whose business is to provide financial services to its member's. Credit cooperative society are legal institutions registered under the cooperative laws (cooperatives Act and cooperative Regulations 1991). They are owned by their members through payment of share capital and membership fees to the institution (Mwangi,2011).

Trust as a concept, has gained immense importance from researchers in management field. It is considered to be a crucial element which influences dynamics in various organizations irrespective of their size and scale. As success of cooperatives has been attribute to teamwork and cooperation, trust among members might be the factor which determines the fortune of the cooperative society. Hence, the researcher evaluates the impact of trust on other aspects related to the society. The success of a credit cooperative largely depends upon its ability to formulate savings mobilization strategies. Several researchers have underlined the importance of savings mobilization in the context of microfinance.

2. Literature Review :

Christine Owuor Nyagengo (2012) focuses on relationship between Saving and Credit Cooperative Organisation (SACCO) Act and membership retention levels of Wana-anga Sacco, marketing strategies employed by wana-anga Sacco, range and ease of access to products offered by wana- ana sacco and influence on retention levels and relationship between SACCO structure and membership retention levels at Wana-anga Sacco. Purposive sampling method is used to select the samples for the studies. Descriptive statistic and Pearson chi square techniques were used to analyse the statistical data.

Biomdo Linah Chelangat et al (2018) establish the effects of savings

mobilization strategies on the growth of savings and credit cooperative societies in Kenya, examine the effect of product development on the strategic growth of SACCOs in Nairobi County in Kenya, assess the effect of product marketing on the strategic growth of SACCOs in Nairobi County in Kenya, and examine the effect of customer focus strategy on the strategic growth of SACCOs in Nairobi County in Kenya. The study found that product development/diversification affects the growth of savings and credit cooperatives very greatly, that product marketing affects the growth of savings and credit cooperatives moderately and that customer focus strategy affects the growth of savings and credit cooperatives greatly.

Chayanan Kerdpitak (2020) focus was to investigate actual business performance model for the competitive advantage of saving and credit cooperatives in Thailand. The relationship between service orientation, market orientation, executive orientation, competitive advantage and business performance was examined. 300 Managers were randomly selected and analyzed using the structural equation modeling (SEM). It is found that service orientation has positive effect on competitive advantage and business performance. Market orientation also has positive effect on competitive advantages and business performance, and executive orientation has also positive effect on competitive advantages and business performance.

Fauziah Septiani, et al (2020) determine the marketing strategy, promotion, and reputation of purchasing decisions at the Savings and Loan Cooperative in South Tangerang. The results of this study's marketing strategies significantly influence purchasing decisions by 33.2%, hypothesis testing obtained significance. The promotion has a significant effect on purchasing decisions of 36.6%, hypothesis testing is obtained significance. Reputation has a significant effect on purchasing decisions by 26.9%, hypothesis testing obtained significance. Marketing strategy, promotion, and reputation simultaneously have a significant effect on purchasing decisions by 51.4%, hypothesis testing obtained significance.

Kaningu Catherine et al (2017) study factors influencing competitive advantage of savings and credit cooperatives organizations (saccos) in Kenya. The sample was selected through stratified random sampling method and 420 employees were studied. For the data analysis factors analyzed Descriptive and inferential statistics was used. The study concludes that access to funds affect competitive advantage of the SACCOs if they make the financial services affordable and easily accessible.

Wasiullah, Khalid (2019) examined interest-free microfinance practices in India and identified issues to recommend possible solutions. Bait-un-Nasr (BuN) Urban Cooperative Credit Society, located in Mumbai, India, was considered as the case for the study. The authors found that BuN has been successful in providing interest-free microfinance services in India. Moreover, it was found that in comparison to the microfinance industry standards, the performance of BuN has been lower.

Kyazze, Nsereko et al (2020) examined the relationship between cooperative practices of accountability, cooperative ownership, advanced communication and non-financial performance in savings and credit cooperative societies. The study uses a cross-sectional research design and adopted a mixed methodological approach where hypotheses were statistically tested using structural equation modelling based on survey data. The findings reveal that cooperative practices of accountability, cooperative ownership and advanced communication are significantly and positively associated with non-financial performance of savings and credit cooperative societies.

Lal (2018) measured the impact of financial inclusion on rural development through cooperatives. The primary data were collected from 540 beneficiaries of Cooperatives banks operating in three northern states of India, i.e., J&K, Himachal Pradesh and Punjab using purposive sampling. Exploratory factor analysis, confirmatory factor analysis, ANOVA, t-test and structural equation modelling were used for scale purification and data analysis. The findings of the study revealed that financial inclusion through cooperatives has direct and significant impact on rural development. Further, the results support the notion that financial inclusion is a strategy of inclusive growth, but inclusive growth itself is a subset of a larger set of inclusive development which means that the benefit must reach the all, particularly the women and the children, minority groups, the extremely poor and those pushed below the poverty line by natural and human-made disasters.

Stellamaris, Oluyemi (2020) explored women's participation in cooperative societies and the constraints in attaining management positions. This study hinges on management and gender theories and systematic literature reviews. This study used a descriptive survey research design for primary data derived from a purposive non-random sampling technique that selected seven active cooperative societies in Awka-South Local Government Area

of Anambra State. Structured questionnaires were administered to the selected sample of 129 members. The hypotheses were analyzed using the T-test statistical model. This study revealed that social, legal, economic and cultural constraints affected women's participation in cooperative societies in Awka, Anambra State. Also, that the African-based culture and family traditions, patriarchal societal system, household responsibilities and homemaker roles, religious associations, certain strict cooperative entry requirements, limitation on women's access to resources and low paid wages and non-participatory training activities constrained the women.

Hatak, Lang et al (2016) aimed at developing a conceptual understanding of how the organizational dynamic is shaped in terms of member coordination and highlighted the difference to traditional member-focused cooperatives by introducing the term third-party-focused cooperatives for those social enterprises which emphasize economic goals as well as control and ownership by a particular community. The key result of the paper was that with the shift from member- to community-focus in cooperatives, the main coordination mechanism becomes one of norm-based trust on the basis of generalized reciprocity. In contrast to traditional maxim-based trust member coordination on the basis of relation-specific reciprocity, this enables third-party-focused cooperatives to mobilize bridging and linking social capital, facilitating collective action aimed towards the community interest.

Papias, Ganesan (2008) examined the factors contributing to credit repayment behaviour among the members of savings and credit cooperative societies in rural Rwanda. Both exploratory and descriptive designs were used for primary data collection on variables contributing to the repayment behaviour in savings and cooperative societies. The results show that age, gender and size of the household, purpose for credit, interest rate charges and number of official visits to the credit societies, have a strong effect on loan repayment performance whereas size of credit disbursed, credit processing and disbursing time, borrowers' market place and income transfer from relatives and friends are more or less statistically significant.

3. Research Gap :

In the previous studies the trust factor in the farmer marketing cooperative was studied. In this study, focus is given on the credit cooperative societies members retention strategies by considering the trust factor.

4. Research questions :

This research paper tackled the problems by addressing the following questions:

- i. Is there any impact of trust on cooperative membership retention, performance and satisfaction?
- ii. What are the saving mobilization strategies and performance of selected credit cooperative societies?

5. Research Objectives :

- I. To study the practical concept of credit cooperative society in operation.
- ii. To examine the impact of trust on cooperative membership retention, performance and satisfaction
- iii. To focus on assessing the saving mobilization strategies and performance of selected credit cooperative societies.

6. Research Methodology :

The methodology followed in the study includes collection of information from both primary and secondary data. The primary data is collected through a structured questionnaire and through interviewing the managers. Other information related to the topic is collected through internet and financial report. The state of Goa is considered as the Universe. The sample of 45 respondents is considered for the study and method adopted for selecting these samples was Purposive Sampling Method. For the study correlation and regression analysis techniques of data analysis is considered.

7. Data Analysis :

7.1. Determining the impact of trust on cooperative membership retention, performance and satisfaction :

To assess the impact of trust between members on cooperative membership retention, performance and satisfaction. In order to assess this objective trust has been subcategorized into cognitive and affective trust. Cooperative membership retention has also been assessed based on group cohesion. The 1st set of hypotheses are as follows:

H₀₁ : there is no significant correlation between Cognitive trust and performance and satisfaction

H₀₂ : there is no significant correlation between Affective trust and performance and satisfaction

H₀₃ : there is no significant correlation between Cognitive trust and group cohesion

H₀₄ : there is no significant correlation between Affective trust and group cohesion

7.1.1. Trust among other members :

Table No. 1: Correlation of Cognitive Trust And Affective Trust Among Members

Variables	Correlation coefficient	Sig. value	Hypothesis testing
Cognitive trust ↔ performance and satisfaction	.384	.009	Reject H ₀ ₁
Affective trust ↔ performance and satisfaction	.359	.016	Reject H ₀ ₂
Cognitive trust ↔ group cohesion	.539	.000	Reject H ₀ ₃
Affective trust ↔ group cohesion	.575	.000	Reject H ₀ ₄

Source: Compiled By Authors Using Secondary Data

Since the P.values (0.009, 0.016, 0.000, 0.000) of all the relationships examined through correlation analysis are statistically significant at 5% level of significance, the null hypotheses are rejected by the researcher. Hence it is found that trust among members is significantly correlated with performance and satisfaction as well as group cohesion. The correlations among all the variables are moderate as the correlation coefficients range between 0.3 to 0.6.

Since correlation analysis highlighted existence of significant relationships between the variables under study, the researcher used regression analysis to study the causal relationships between the variables. The hypotheses to identify the impact of trust (cognitive and affective) on the performance and satisfaction are as follows:

H₀₅ : there is no significant impact of cognitive trust on performance and satisfaction

H₀₆ : there is no significant impact of Affective trust on performance and satisfaction.

Table No. 2: Impact of trust on performance and satisfaction among members

Independent Variables	Beta Coefficient	t-Test Value	P-Value
Cognitive trust among members	.310	1.732	.091
Affective trust among members	.184	1.419	.163
Constant		3.409	
R Square		.187	
Adjusted R Square		.148	
F Test Value		4.818	
P-Value		0.000	

Source: Compiled By Authors Using Secondary Data

In regression Analysis a separate impact of Cognitive trust and affective trust on performance and satisfaction from their cooperative membership is carried out. The R^2 obtained from the analysis is 0.187 which means the impact of cognitive trust and affective trust on performance and satisfaction from the cooperative membership separately is explained to the extent of 18%. The adjusted R^2 states that the model is defined and it explains the dependent variable e.i. performance and satisfaction from the cooperative membership is to the extent of 14%. When it comes to hypotheses it can be understood that there is an impact of cognitive trust on performance and satisfaction as it is significant at 5% level significance, whereas there is no impact of affective trust on performance and satisfaction so we fail to reject the null hypotheses.

H0₇ : there is no significant impact of cognitive trust on group cohesion

H0₈ : there is no significant impact of Affective trust on group cohesion

Table No. 3: The impact of trust on group cohesion among members

Independent Variables	Beta Coefficient	t-Test Value	P-Value
Cognitive trust among members	.330	2.538	.015
Affective trust among members	.287	3.056	.004
Constant		2.636	
R Square		.420	
Adjusted R Square		.392	
F Test Value		15.184	
P-Value		0.000	

Source: Compiled By Authors Using Secondary Data

To understand the causal relation between group cohesion and trust from their cooperative membership a Regression Analysis is conducted. The R^2 obtained from the analysis is 0.420 which means the impact of cognitive trust and affective trust on performance and satisfaction from the cooperative membership separately is explained to the extent of 42%. The adjusted R^2 states that the model is defined and it explains the dependent variable i.e. group cohesion from the cooperative membership is to the extent of 39%. From the table it can be noted that there is a significant impact of cognitive and affective trust on the group cohesion as the test shows the significant at 5% significance level, which makes it obvious to reject alternative hypotheses which says there is an impact of trust (cognitive and affective) on group cohesion among the cooperative members.

7.1.2. Trust on Management :

To assess the impact of members' trust on management on cooperative membership retention, performance and satisfaction. In order to assess this objective trust has been subcategorized into cognitive and affective trust.

Cooperative membership retention has been assessed based on group cohesion.

H₀₉ : there is no significant correlation between Cognitive trust and performance and satisfaction

H₀₁₀ : there is no significant correlation between Affective trust and performance and satisfaction

H₀₁₁ : there is no significant correlation between Cognitive trust and group cohesion

H₀₁₂ : there is no significant correlation between Affective trust and group cohesion

Table No. 4: Correlation of cognitive trust and affective between members and management

Variables	Correlation coefficient	Sig. value	Hypothesis testing
Cognitive trust ↔ performance and satisfaction	.486	.001	Reject H ₀ ₉
Affective trust ↔ performance and satisfaction	.544	.000	Reject H ₀ ₁₀
Cognitive trust ↔ group cohesion	.694	.000	Reject H ₀ ₁₁
Affective trust ↔ group cohesion	.593	.000	Reject H ₀ ₁₂

Source: Compiled By Authors Using Secondary Data

Since the P.values of all the relationships examined through correlation analysis is statistically significant at 5% level of significance, the null hypotheses are rejected by the researcher. Hence it is found that members' trust on management is significantly correlated with performance and satisfaction as well as group cohesion. The correlations among all the variables are moderate positive correlation coefficients as it range between 0.4 to 0.7.

Since correlation analysis highlighted existence of significant relationships between the variables under study, the researcher used regression analysis to study the causal relationships between the variables.

H₀₁₃ : there is no significant impact of Cognitive trust on performance and satisfaction.

H₀₁₄ : there is no significant impact of Affective trust on performance and satisfaction.

Table No. 5: The impact of trust on performance and satisfaction between members and management

Independent Variables	Beta Coefficient	t-Test Value	P-Value
Cognitive trust among members	.192	1.256	.216
Affective trust among members	.371	2.298	.027
Constant		2.945	
R Square		.322	
Adjusted R Square		.290	
F Test Value		9.968	
P-Value		0.000	

Source: Compiled By Authors Using Secondary Data

In case to study the impact of trust on performance and satisfaction as well as group cohesion, the researcher has run through the regression analysis. From the analysis it can be noted that R² and adjusted R² states that the model is defined. Trust between members and management has impact on performance and satisfaction to the extent of 32% and 29% respectively. From the table it explains that the p.value of cognitive trust variable is not significant at 5% level of significant so the researcher fail to reject the null hypotheses. The p.value of variable affective trust is significant which suggest that the researcher can reject null hypotheses which says that there is no significant impact of Affective trust on performance and satisfaction.

H0₁₅ : there is no significant impact of Cognitive trust on group cohesion

H0₁₆ : there is no significant impact of Affective trust on group cohesion

Table No. 6: The impact of trust on group cohesion between members and management

Independent Variables	Beta Coefficient	t-Test Value	P-Value
Cognitive trust among members	.411	3.671	.001
Affective trust among members	.182	1.541	.131
Constant	2.659		
R Square	.509		
Adjusted R Square	.486		
F Test Value	21.767		
P-Value	0.000		

Source: Compiled By Authors Using Secondary Data

In case to study the impact of trust(cognitive and affective) on group cohesion, from the analysis it can be noted that R^2 explain that independent variables explains dependent variable to the extent of 50% and adjusted R^2 states that the model is defined. From the table it explains that the p.value of cognitive trust variable is significant at 5% level of significant so the researcher reject the null hypotheses. The p.value of variable affective trust is not significant which suggest that the researcher fail to reject null hypotheses which say that there is no significant impact of Affective trust on performance and satisfaction.

Table No. 7: Summary of Regression Analysis.

Impact of trust among members	Hypothesis testing
Cognitive trust ↔ performance and satisfaction	Reject H_{0_5}
Affective trust ↔ performance and satisfaction	Fail to Reject H_{0_6}
Cognitive trust ↔ group cohesion	Reject H_{0_7}
Affective trust ↔ group cohesion	Reject H_{0_8}
Impact of trust between members and management	
Cognitive trust ↔ performance and satisfaction	Fail to Reject $H_{0_{13}}$
Affective trust ↔ performance and satisfaction	Reject $H_{0_{14}}$
Cognitive trust ↔ group cohesion	Reject $H_{0_{15}}$
Affective trust ↔ group cohesion	Fail to Reject $H_{0_{16}}$

Source: Compiled By Authors Using Secondary Data

7.2 Identification of Savings Mobilization Strategies And Evaluation of performance of selected credit cooperative societies.

Table No. 7: Evaluation of performance of selected credit cooperative societies.

Variables	Marcel Urban Coop Credit Society		VPK Urban Coop Credit Society		Quepem Urban Coop Credit Society	
	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20
Membership	7,585	8,240	96,576	1,05,279	57,172	60,127
Paid up Capital	1,48,93,500	1,73,99,100	37,27,06,600	36,62,07,500	7,41,45,000	7,89,34,000
Reserves	3,25,10,233	3,35,71,749	27,98,30,038	28,36,23,688	12,61,22,000	13,27,13,000
Investments	55,010,460	7,92,65,610	3,13,44,33,574	2,73,65,32,834	1,11,84,05,810	1,08,37,97,386
Deposits	21,93,31,021	26,58,07,702	7,67,61,92,899	6,99,18,16,229	2,70,25,89,000	2,79,74,06,000
Advances	21,53,44,309	25,28,18,980	5,50,31,38,551	5,29,44,17,866	1,70,70,47,000	1,86,18,88,000
Net profit	23,63,838	51,23,802	(8,73,07,562)	(24,40,77,036)	90,03,000	1,03,87,000
Net NPA	16,52,181	24,96,683	1,06,28,45,352	1,18,40,97,600	4,56,80,000	5,41,38,000

Source: Compiled By Authors Using Secondary Data

Table No. 8: Evaluation of performance of selected credit cooperative societies in percentages

Variables	Marcel Urban Coop Credit Society	VPK Urban Coop Credit Society	Quepem Urban Coop Credit Society
Membership	8.64	9.01	5.17
Paid up capital	16.82	(1.74)	6.46
Reserves	3.26	1.35	5.22
Investments	44.09	(12.69)	(3.09)
Deposits	21.19	(8.91)	3.51
Advances	17.40	(3.79)	9.07
Net profit	116.75	(179.56)	15.37
Net NPA	51.11	11.40	18.51

Source: Compiled By Authors Using Secondary Data

7.2.1. Marcel Urban Coop Credit Society :

The Marcel Urban coop credit society showed the increase in all the areas. The total number of members showed net increase of 8.64%. Paid up share capital registered an increase of 16.82%. There is also increase in reserves and investments by 3.26% and 44.09% respectively. Total deposits registering an increase of 21.19%, advances showed an increase of 17.40%. Credit: Deposit (CD Ratio) improved to 98.18% from 95.11%. There is tremendous increase in net profit by 116.75%. When the NPA figures are compared even there is a rise in NPA at 51.11%.

7.2.2. VPK Urban Coop Credit Society :

The total number of members of VPK Urban coop credit society as on 31st March 2020 raised at 9.01%. Paid up share capital showed a decrease of 1.74% from the previous years. Reserves register an increase by 1.74%. There is tremendous decrease in investment by 12.69% from the last year investments. Total deposits decreased to 8.91%. from last year, advances also showed a decrease of 3.79%. but it showed a increase in Credit: Deposit (CD Ratio) to 75.72% from 71.69%. There is high rise in net loss by 179.56%. When the NPA figures are compared even there is a rise in NPA at 11.40%.

6.2.3. Quepem Urban Coop Credit Society

The total number of members as on 31st March 2020 stood at 60,127 as against 57,172 in the previous year, thereby showing net increase of 2955 during the year, a rise of 5.17%. Paid up share capital registered an increase

of 6.46% from Rs. 741.45 lakhs to Rs.789.34 lakhs. Reserves showed a increase of 5.22%, but in case of investment there is a decreased in percentage by 3.05%. Total deposits stood at Rs. 27,974.06 lakhs as against Rs. 27,025.89 lakhs last year thereby registering an increase of 3.51%. Advances showed an increase of 9.07% from Rs. 17,070.47 lakhs to Rs. 18,618.88 lakhs during the year. Credit: Deposit (CD Ratio) improved to 66.55% from 63.16%. There is also rise in net profit to 15.37%. When the NPA figures are compared even there is an rise in NPA at 18.51%.

Table No. 9: Identification of savings mobilization strategies through deposits schemes

Deposit schemes	Marcel Urban Coop Credit Society	VPK Urban Coop Credit Society	Quepem Urban Coop Credit Society
Saving deposits	√	√	√
Term deposit schemes	√	√	√
Recurring deposit schemes	√	√	√
Interest reinvestment schemes	√		
Pigmy deposits	√	√	√
Monthly interest schemes	√	√	
Current deposits		√	
Education saving schemes		√	√
Lakhapati deposits		√	
Monthly pension schemes			√

Source: Compiled By Authors Using Secondary Data

Marcel Urban Coop Credit Society as part of its Savings mobilization strategy offers a unique deposit scheme named Interest reinvestment scheme. Apart of this, the credit society also accepts deposits in the form of savings deposit, term deposits, recurring deposits, pigmy deposit and monthly interest schemes. Amongst the 3 credit cooperative societies considered in this study, VPK has the highest number of options available to the depositors in order to deposit their savings. VPK also tries to mobilize savings of the depositors by offering attractive deposit schemes like Lakhapati deposits and Current deposits. Quepem Urban Credit Cooperative society strategizes mobilization of savings through deposit acceptance schemes such as Monthly pension schemes.

Table No. 10: Identification of savings mobilization strategies through loans schemes

Loan Schemes	Marcel Urban Coop Credit Society	VPK Urban Coop Credit Society	Quepem Urban Coop Credit Society
Personal security loan	√	√	
Hypothecation loan	√		√
Gold loan	√		√
Cash credit	√	√	√
Mortgage loan	√	√	√
Staff loans	√		
Vehicle loan	√	√	√
Loan on PF	√		
Housing loan	√	√	√
Business loan			√
Agricultural loan		√	√
Educational loan			√
Self-help group loan			√
Loans for physical challenged			√
Loan against gold coins			√
Loan against deposits			√
Loan on pigmy			√
Salary deduction loan		√	
House repair loan		√	

Source: Compiled By Authors Using Secondary Data

Marcel Urban Coop Credit Society focuses on developing the schemes which give more return to the credit cooperative society. They focus on individual growth. From the schemes which are considered one can conclude that they considered less risky areas. These society provide the loan(staff loan and loan on PF) which is not offered by other society. VPK has unique loans schemes such as Salary deduction loan and House repair loan. The schemes like cash credit, mortgage loan, vehicle loan and housing loan which is common in all society is also offered by all these selected cooperative credit society. Among all the three credit cooperative societies considered in the study, Quepem Urban cooperative Credit society offers highest number of loan schemes. The loan schemes which are exclusively offered by Quepem Urban cooperative Credit society include business loan, agricultural loan, educational loan, self-

help group loan, loan for physically challenged, loan against gold coins, loan against deposits and loan on pigmy.

Saving mobilization strategies of Quepem involves diverged schemes which range from education to business, housing to cash credit loan and gold loans to vehicle loan. The credit society seems to target all sections of the society by offering the wide range of loan schemes to choice from.

8. Conclusion:

There has been lot of issues among the members of credit cooperative society, and the main factor responsible for such issues is the trust factors for the member retention and the saving mobilization strategies. With respect to that this study concluded that there is a significant correlation of performance and satisfaction, and group cohesion among the members and between members and management. The study reveals that there is a significant impact of Cognitive trust on group cohesion among members and between members and management. Out of the three selected

cooperative credit society two shows the overall growth in credit cooperative society, and reasons for the growth are their different saving mobilizing strategies.

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Khutker Sarvada*

Abstract:

Co-operative societies are a joint group of people whose purpose is to achieve their common objectives. Cooperatives are the backbone of an individual who seeks financial help where the public from rural areas hesitates to visit private organizations due to different hurdles they face. A cooperative society is an instrument that generates and creates gainful employment, health care facilities, education, regular power supply, cleanliness and hygiene, roads, and infrastructure facilities, etc., which will provide more substantial support to rural people. Various types of cooperative societies are coming up worldwide, but rural tourism through cooperative society is an emerging trend.

Rural tourism consists of rural and natural resources, and this type of tourism is most suitable for preserving and promoting local culture. Cultural tourism and ecotourism are generally applied in rural areas. Development of rural tourism and ecotourism through different activities, tourism cooperatives will always think in both points of view such as protection and conservation of resources and satisfying the tourists by giving them unique experience about their place. Unlike mass tourism and domestic tourists who live in the city, areas can also participate in active social-economic recreational activities. These activities may create employment opportunities for rural people and improve their living standards by earning additional income through rural tourism.

The study was undertaken to formulate effective strategies for promoting tourism co-operatives in selected rural areas surrounding Dudhsagar waterfall and Mahadev temple at Tambdi Surla. Besides examining the problems in community-based tourism development through tourism co-operatives at these places. The major conclusion is that these areas have some limitations, such as the lack of installing food courts at appropriate sites where tourists find it difficult to avail of this facility. It will be better

*Student, M.com Part II, Post-Graduate Department of Commerce
Government College Arts, Science and Commerce Khandola, Marcela – Goa

if the women of the rural areas come forward to serve at these destination places, improving their livelihoods and creating employment opportunities that are only possible through tourism co-operative societies. In which they become financially independent.

Keywords:

co-operative societies, rural tourism, tourists, tourism activities.

1. Introduction :

0.1 Introduction To Co-operatives :

A co-operative is a group of people who voluntarily come together for mutual benefits through a jointly owned and democratically owned enterprise. A co-operatives social Act was implemented in India in the year 1904. This Act enables the formation of primary co-operatives credit societies. Since co-operatives are the emerging trend in India soon after the first "urban co-operative credit society" was registered in Kanjivaram in Madras in October 1904 and then slowly all over the Indian States has been registered themselves under this Act (Satyajeet, 2019). The study speaks about the role of co-operatives in the rural tourism development of Goa. Co-operative societies mainly depend upon self-awareness, mutual trust, freedom, faith, equality, and solidarity. The members of the co-operative societies are more responsible towards their society by helping and caring for others (Verma, 2014). Co-operatives are the social business enterprises in which community members come together to form new businesses and support the promotion and development of their economic activities, such as producing and marketing goods and services. The main motive of this co-operatives society is to provide financial assistance to the members (Rafiu, 2019)

According to the International Co-operative Alliance," a co-operative is an autonomous association of persons united voluntarily to meet their everyday economic, social, and cultural needs and aspirations through jointly-owned and democratically controlled enterprises."

According to the M T Herrick, "Act of persons, voluntarily united, for utilising reciprocally their forces, resources or both under their arrangement to their common profit or loss".

Age constitutes the determining characteristics in the definition of Youth by various agencies. UN adopted the age group 15 to 24 for defining youth. The National Youth Policy initially (in 2003) described the youth as in the age group 18-35. However, National Youth Policy, 2014 modified it and defined 'youth' as persons aged 15-29 years. In the present report, we have adopted 15-34 years as a youth as adopted in the earlier report to show trends and changes over a long period.

1.2. Cooperatives in Goa :

The co-operative movement took place with the different aspects and sectors, namely agriculture, credit, consumers, housing, dairy farming, and other types of a harmonious society. To better serve the needs of the different co-operative societies and to have a proper monitor over it, the state Government established the Department of cooperation, i.e. the office of Registrar of co-operatives, as the administrating Authority of all the co-operative societies. Initially, Goa adopted the Maharashtra state co-operative societies Act, 1960, and the Rules, 1962 made thereunder the registration and control over the communities. Afterwards, the Goa state enacted its law, The Goa state co-operative societies Act, 2001. All co-operatives societies registered in Goa as per the Government provision of co-operative Act, 2001 and suitable societies Act, 2003. (official website of the Registrar of Cooperative Societies Government of Goa). There are altogether 2,471 different classes of functional co-operative societies having a total of 8 89, 018 members under their fold which cover a sizable portion of the total population of the state of Goa. (official website of the Ministry of Statistics and Program Implementation is a ministry of Government of India)

1.3 Rural Tourism :

Rural tourism is the broad area that showcases the local talent and handicraft work of the rural artisans to tourists. Most rural areas have been developed through rural tourism in the recent past. This activity consists of many recreational activities such as rafting, climbing, trekking, nature sightseeing, fishing, and participating in local culture and their traditional lifestyle. Which make a lot of joy for tourist who visits this location. Due to urbanisation in the culture, most people are moving backwards in the rural areas to enjoy and have experience of local tradition, which is losing importance day by day. So rural tourism is the one aspect where people preserve and maintain their local practices. Co-operative societies are the basis for the growth and development of tourism in rural areas. Most people

are not aware of rural tourism and how to market it to a more significant extent. As we know, Goa is more famous for its Scenic beauty and considers India's crown. Even Goa is the wealthiest state of India while contributing high Gross Domestic Product income to its nation. Tourism is the most crucial source which contributes to the state economy. As per the United Nations, World Tourism Organization (UNWTO), rural tourism is “a type of tourism activity in which the visitor’s experience is related to a wide range of products generally linked to nature-based activities, agriculture, rural lifestyle/culture, angling, and sightseeing. Rural tourism usually takes place in non-urbanized areas, i.e., village areas (Harun et al., 2016). It includes many areas such as national parks, river riding, camping, campfire, mountain climbing, hiking, bullock carts riding, Agro-farming, heritage sites, forts, art and culture of the local, historical monuments, architecture, etc.

1.4 The role of Co-operatives in Rural Tourism Development :

Co-operative societies are a promotional tool in developing and promoting rural tourism in villages. Co-operatives are viewed as essential tools for improving the standard of living of both women and men. Co-operatives play a crucial role in international and national economic development in several ways, the pillar of economic development (Dogarawa, 2005). The co-operative societies provide various suggestions to improve rural tourism. Study of the tourist’s places as per tourist’s demands, proper planning and conservation of natural resources and local heritages for the sustainable development of rural tourism, a gap of infrastructure and other services which are required at the tourism region should be adequately bridge, educating and giving training to the villagers to improve their skills and language proficiency, awareness regarding the benefits of rural tourism. Any museums or Tourist Information centres can be made available at the region, local and state level, and national or international level. Rural tourism should be tax-free, and government should also take initiatives to support the young entrepreneurs by providing loans (Singh, 2016).

2. Literature Review :

Curc’ic et al.’s (2021) study focused on building entrepreneurship among the young people of the rural community to raise their standard of living. Budi et al. (2020) conceptualised tourism as a legal entity to develop the nation and develop nationwide developmental activities, which is key to community-based tourism in Indonesia's rural areas. The paper concluded that the co-operative society through legal entities could empower and promote the rural culture and promote environmental peace and promotion

of tourist destinations. Bagus et al.'s (2019) study concluded that the support of government and other private institutional approval is required for the development of community-based tourism in rural areas. Marszałek (2019) analysed the impact of tourism on entrepreneurs of business cooperation and Wisla Tourism Organization in tourist destination Wisla in Poland. The paper concluded that due to social consequences in Wisla, co-operative activities are less innovative, there are no changes in adopting advancement, and there is no proper coordination among members to make better decisions. Kisi (2019) highlighted the importance of sustainable tourism and its benefits to the local community. In contrast, in their empirical study, Shamsuddin et al. (2018) focused on establishing a co-operative society in Malaysia. Costa et al. (2018) evaluated the tourist development of the sub-region Peninsula of Setubal. The main conclusions drawn were about the vast gap between the management control and economic impacts for the development of the co-operative society at the Setubal-Peninsula region. Garcia et al. (2017) interpreted the process of involvement and community management of "El Recreo" residents in ecotourism activities at the "El Verde Camacho". The study found that ecotourism aroused from the term sustainable tourism development includes three main factors, i.e., social, economic, and environmental factors. Fiona (2017) empirical study stated that co-operatives require various tools, indicators, non-financial reports, measurement landscapes to understand the data necessary to operate and understand the process of co-operative business. Purposive and snowball sampling techniques were used to collect the data from various sources. This study concluded that the availability of information is significantly less on collaborative tools due to little storage of data on the specific means of co-operative. Margarita et al. (2017) empirically studied the project development through community-based tourism of Kikil and the stakeholder participation in community development by conducting community-based tourism. The study concluded that there is an interpersonal conflict between government authorities and residents of the Kikil, government bodies focus on financial benefits and residents focused on community-based development, and Schutz (2017), in his empirical study, evaluated that the level of community support to promote tourism at Kalache, and their attitude towards tourism measured in terms of social, political and environmental factors.

Mugali et al. (2017) studied the temple Architecture of Kabamba of Goa, who built the most ancient and famous temple in Goa, i.e., Saptakoteshwar temple at Narve and Mahadev temple at Tambdi Surla. The researcher

found that the Bahamas expanded their territory to Goa and became the powerful dynasty with Goa as a part of their domain. Alonso et al. (2015) studied the supporting and complementing development efforts of countries to guarantee the universal social basic standards to their citizens. This study is conceptual, and the researcher found a need to study and formulate various policies of co-operative societies in developing countries. Sehgal et al. (2014) case study assessed the development structure of co-operative society and its benefits and different schemes available in the Jammu and Kashmir state. The researcher recommended various tools and strategies to improve co-operatives' status in Jammu and Kashmir. The researcher found that the co-operative in Jammu and Kashmir has shown many irregularities. Verma (2014) the different types of strategies have been framed and structured for encouraging peace and ecotourism in the rural areas, namely adventures, rafting, fishing, mountain climbing, health, and herbal tourism, especially in rural areas. This study concluded that co-operative societies and NGOs are the best platforms where rural tourism flourish. Lama (2014) empirical study evaluated the role and functions played by the NGO and government to promote community-based tourism in Sikkim. The study sample includes the host community, stakeholders, tourists, NGOs, and Government representatives. This study used the purposive sampling method used to collect information. This study concluded that many scopes are available in Sikkim to engage themselves through community-based tourism. Mihailovićin et al. (2012) the case highlighted that there is a need for the implementation of marketing strategies in the rural tourism sector. And assessed the availability of technological factors, infrastructural facilities, service sector, and better environment rural tourism destination. The paper concluded that to sustain the tourism sector in rural areas, information technology and competition at the global level; potential buyers should be considered for future growth and development in the tourism sector in rural areas to uplift the rural community. López et al. (2011) analysed the community-based tourism within the geographical territory, the island of Fogo in Cape Verde. The researcher mainly investigated the tourist's suggestions and recommendations on the services rendered by the host community. In this study, univariant and Bi-variant analysis techniques have been considered to produce corresponding results. In this study, the researcher found that development in Cape Verde Island is required to create mass tourism demand in Fogo, an island in Cape Verde. Johnson (2010) conceptualised the abilities for social-economy entities to implement community-based tourism within geographical areas of Canada. Co-operatives are key indicators that foretell the development of community-

based tourism in rural areas of Canada. A systematic approach was followed to develop better communication among the community. Social economy enterprises are implemented in rural areas to make better decisions and development the term community-based tourism. In their empirical study, Smitha et al. (2010) studied the destination in Goa, specifically beaches centric beauty, which is the key destination of Goa. In this study, the researcher study about the product life cycle and the tourism assessment of tourism activities for effective planning and to create a structure for tourism in Goa. The study was conducted in Tiswadi taluka of Goa. The survey was undertaken of 300 domestic and 300 international tourists. In the descriptive survey, Bello et al. (2010) identified various co-operative ways to act as agents towards their clients. Cooperative has played an important role for over 160 years. They have better control over their economic livelihoods by facilitating and creating various job opportunities and increasing their standard of living through growth and development. Co-operative develops them economically and socially, which will motivate them to live with sustainable development. Aref et al. (2009) case study focused on the status of rural tourism in Iran. The study concluded that Iran has vast opportunities for developing different rural tourism activities, and even the same thing can be developed in the rest of the world. Szabó (2004) conceptualised the importance of combining insights across the social sciences and studying the substances of cooperation. Ertler (2001) concluded that co-operatives play a crucial role in solving many problems through advanced development, which benefits rural people. Dwivedit (1996), in his conceptual study, studied that to facilitate the growth of co-operative development, the government, on behalf of the Rural Credit Survey Committee, launched the concept of state partnership and had better control over it. Different sources used to collect secondary and primary data Ministry of agriculture, Government of India, Krishi Bhavan, etc. In this study, the researcher concluded that multinational companies have their limitations. On the other hand co-operative enjoyed lot of benefits. There is a need for proper guidance and communication leaderships to achieve common objectives for individuals.

3. Research Gap :

As per the studies of all the authors in their current study, they concluded that there is a need to survey each rural area on village tourism. Since tourism is a vast industry, it creates more employment opportunities. Even there are many positive and negative impacts on villagers through village tourism; tourism co-operatives played a decent role to develop the concept

of community-based tourism. So it should be systematically planned and executed. Nowadays, most city people move towards village life because due to pollution and their busy schedule, they don't find enough time to reduce their stress and enjoy life with new experiences of village culture. So far, many studies have been done, but there is a need to conduct studies in rural areas of Goa.

4. Research Problem :

Tourism co-operative society is gaining popularity nowadays, but in Goa, people are not aware of the importance of tourism co-operative societies, which will enable them, especially youth who are residents, to grow and develop their tourism places to a more significant extent. Establishing tourism co-operative societies in Goa will encourage and motivate residents to participate in community-based tourism through cooperation.

5. Research Questions :

- i) What are the effective strategies for promoting tourism co-operatives in selected rural areas?
- ii) What are the problems faced by the community in the community-based tourism development through tourism co-operatives?

6 Objectives

- i) To formulate effective strategies for promoting tourism co-operatives in selected rural areas.
- ii) To examine the problems faced by the community in the community-based tourism development through tourism co-operatives.

6. Research Methodology:

The sample represents the total universe of the population. So in this study, I have chosen a selection of 100 respondents, who are the residents who reside near Dudhsagar waterfall and Tambdi surla temple in Dharbandora Taluka of Goa. This study undertakes a simple random sampling method for data collection. The structured questionnaire was framed and distributed among the youth. For data collection, both primary and secondary methods were used. Secondary data was used to clear the concept and theory of co-operative and rural tourism. At the same time, primary data was used to get responses from the residents. The data was collected from October to November 2021. The collected data were used and analysed in SPSS software to conclude the collected data. This study undertakes Goa's two main tourist destinations, Tambdi Surla temple and Dudhsagar waterfall, to

find youth perceptions of community-based tourism through Goa's tourism co-operatives. The respondents between the age group of 18-30 were interviewed during the study period.

8. Discussions And Findings :

8.1) Dudhsagar waterfalls in Goa:

Dudhsagar waterfalls are well-known Waterfalls of India located on the river Mandovi, also known as Mahaday River in Karnataka at Dharbandora Taluka in the state of Goa. This waterfall is famous for its natural beauty and scenic attractions that attract many tourists every year. Dudhsagar waterfalls are the tallest falls of India, with a height of approximately 310 meters (1017 feet) and a width of 30m (100 feet). Dudhsagar falls route distance by road from Panjim city is 60km, from east Madgaon, 46 km, because this fall is situated on the Madgaon -Belagavi rail route and 80km from the south of the south Belagavi route. The best time to visit this spot is the month of June to December. Even visitors can hire bikes and a Jeep safari from Kulem station. If you are opting for a railway, Kulem is the nearest station to reach the falls, some around only 8km journey you have to travel. During the rainy season, the water level is increased, due to which it becomes most attractive. The water falling from the top of the mountain looks like milk a deep sea of milk. Thus name comes as Dudhsagar (official website of Government of Goa "A periodical by Department of Environment and Climate Change). The fall is located on the border between Karnataka and Goa state. This area is surrounded by long bushes, trees, and a wide range of ecological biodiversity. The castle rock station is the nearest rail station to the falls by road. Dudhsagar falls become the most beautiful fall in the heart of the visitors. People visit this place as a tourist destination for religious purposes, especially local people. Dudhsagar falls the natural spot, whereas the temple of Dudhsagar god in the local name "Dudhsagar Aajo" was the god of the local community. Even the locals have a strong belief and faith in the Dudhsagar god because of his blessings on them. Even at the time of the primary worship day of lord Dudhsagar, most people and their families pray and wish a very blissful life for them. In the recent year near to Dudhsagar falls in the Braganza Western Ghat section in the middle of Goa and Karnataka border, Some around 135-year-old heritage site has been discovering which was built by the West of India Portuguese Guaranteed Railway company in 1885, it was studied that this heritage site is the part of West of India Portuguese Guaranteed Railway project at the time of construction of harbour at Mormugao. This site has unique architectural features of that era, and the stone masonry structure

has been built up, which was very close to the Dudhsagar central falls. This attracts many heritage lovers and researchers to enjoy and investigate this heritage site which is an unknown place (Rodrigues, 2021).

8.1 B) Mahadeva Temple at Tambdi Surla :

Lord Mahadeva temple is located in the south district of Dharbandora Taluka of Goa. This temple is the most ancient temple where a lot of local people, as well as tourists, are attracted towards. The temple is located inside the deep forest in Sacorda village. On the auspicious day of Akshay Tritiya (the third day of the second lunar month), nearly all around self-help groups of women from nearby villages gathered to this temple to perform Fugdi traditional folk dance event. The temple was built in Hemadpanthi style from basalt and carved craftsmen (Kumud, 2011). This temple is considered the only ancient monument of Kadamba –Yadav architecture preserved in Goa, which is constructed with the help of basalt stone. According to the folklore, the temple builder of this temple was Hemadri, the minister of Yadav king Ramchandra during the 12th century. This temple is located at the bottom of the Western Ghats region in Goa with lush green forest flow with springs inside the forest, and the Surla River flows in front of this temple (Sadashiv et al., 2017). Even trekking is possible at this place because the temple Tambdi Surla waterfall is located, which requires 3 hours to reach this natural spot. So a large number of tourists do visit this place because of its natural beauty. You will get a different experience about the nature spot while walking you have to cross seven other small springs, making your trekking more enjoyable. The sound of other bird's, trees you can hear while walking. This is an excellent experience in the lush green forest in the Western Ghats of Goa. At the waterfall, you can play with water and take a bath in it. In short, it is a mesmerising experience for the visitor, which contributes to reducing once stress, creating enjoyment and a level of joy by getting in touch with nature, and having blessings of Lord Mahadeva temple Tambdi Surla in Goa.

8.2 Profile of Respondents :

Table 1 Demographic Profile

Age Group	18-25	81
	26-30	19
	Total	100

Gender	Male	45
	Female	55
	Total	100
Education	Illiterate	1
	Matric	12
	12 th	49
	Graduate	31
	Postgraduate	2
	Total	95
	Missing	5
Occupation	Student	54
	Employed	34
	Unemployed	6
	Total	94
	Missing	6
Marital Status	Married	8
	Unmarried	92
	Total	100

Source: Primary Data

Table 1 indicated that 81% of respondents belong to 18-25, whereas the remaining 15% belong to 26-35. Most of the youth participated in the study. The given table indicates that 54% of the respondents are students, whereas the least number of respondents fall under the unemployed category with a percentage of 6%. The results indicate that out of 100 respondents, 45 are male, and 55 are Female. Percentage-wise, 45% are male, and 55% are female. Out of 100 respondents, eight are married, and 92 are unmarried in the table shown. The majority of respondents are unmarried, and the minority respondents are married. In the above-given table, most respondents are 12th qualified, and among the total sample of 100 respondents, only one person is Illiterate. Whereas only 12 people are Matric, 31 are Graduate, and two are postgraduate. Only out of the total questionnaire 5 data were found missing.

8.3 Number of tourist visits at Dudhsagar And Tambdi Surla temple :

Table 2 : Tourists visits during the months

Months	%
Sep-Nov	33
Dec-Feb	26
Mar-May	31
Jun-Aug	9

Total	99
Missing	1

Source: Primary Data

Table No.2 indicated that 33% of tourists' visits in the months of Sep-Nov and 9% in June-Aug. In the months of Mar-May, 31% visits and 26% in the months of Dec-Feb.

8.4 Impact of tourism on the Economy :

Table 3 : Tourism's impact on the economy

Tourism impact on the economy	%
Job created in the village	26
increased income of the people	29
prices of goods increased to tourists	18
Demand for local products increased	26
Total	99
Missing	1

Source: Primary Data

As per table No.3, tourism at Tambdi Surla and Dudhsagar waterfall impacted on economy. Due to tourism, 29% of the increased income of the people, 26% of jobs created in the village, and demand for the local products increased. Due to visiting of tourists, 18% of the prices of goods increased to tourists. 1% of data is missing.

8.5 Entrepreneurial Activities :

Table 4 : Entrepreneurial Tourism Activities

Business activities	%
Renovation of old houses	26
Homestay	28
Café	29
Small exhibition ground and hall	16
Total	99
Missing	1

Source: Primary Data

Table No. 4 indicated that 29% of the respondents would like to come up with a café and 28% of them are ready to come with Homestay business enterprises, 26% of them want to renovate their old houses, and 16% of them are prepared to go with small exhibition ground and hall. 1% of data is missing.

8.6 Tourism Attractions:

Table 5 :Tourism attractions made by the community

Tourism Attractions	%
Day hiking at pilgrimage	35
Mountain climbing	20
River rafting	7
Fishing	5
Farming	7
Cultural shows	10
Handicraft	16

Source: Primary Data

Table No. 5 indicated that 35% of the respondents are interested in Day hiking at pilgrimage sites, 20% of them want to attract tourists with Mountain climbing, 16% of them with handicrafts, and 10% of them want to perform a cultural show, 7% of the residents want to attract tourists with river rafting and farming, 5% of them with fishing.

8.7 Residents Perceptions :

Table 6 : Resident’s perceptions towards tourism impact on the environment

Tourism impact on the environment	%
Vehicle pollution has increased	29
Garbage is increased	57
Natural resources are better used for tourists	13
Total	99
Missing	1

Source: Primary Data

Table No.6 indicated that 57% of residents perceived that impact on the environment is due to an increase in garbage and 29% of them it is expected to vehicle pollution has increased, and 13% of them perceive Natural resources can be better used for tourists.

7.8 Tourism Impact on the Village

Table 7 : Tourism impact on villagers

Tourism impact on villagers	%
Cultural exchange	40
Language barriers	42
Theft and Drug paddling	14
Gambling	4

Source: - Primary Data

Table No. 7 indicated that 42% of residents were impacted due to tourism because of Language barriers, 40% of them are due to Cultural exchange, and 14% of them are affected due to Theft and drug paddling, whereas 4% of tourism has an impact on villagers due to Gambling.

8.9 Development of Tourism

Table 8 : The development of tourism

Development of Tourism	%
Training and Counselling Session to Villagers	27
Forming village members co-operative committee	22
Our village has unique potential	18
Government Organization	9
We can exhibit our traditional art and culture	17
We ask for financial help from a financial institution	6
Total	99
Missing	1

Source: -Primary Data

Table No. 8 shows that 27% of the respondents want to develop Tourism at Tambdi Surla and Dudhsagar Waterfall by providing training and

counselling sessions, by creating awareness programs on tourism co-operatives for villagers. 22% of them by forming village member's joint committee and 18% of them assumed that their village has unique potential, 17% of them want to develop by exhibiting their traditional art and culture, 9% of the residents with the help of Government bodies and Government organisations and 6% of them want to develop tourism in their locality by asking financial support from financial institutions.

9. Findings:

As per the findings of this study, forming co-operatives in rural areas of Goa is an excellent way to achieve any common objective of the people. The study found that youth are more interactive and eager to know about rural tourism and cooperation. Most women in rural areas are economically dependent on their families. The law protects these areas due to the more extensive existence of flora and fauna with various living creatures. Tourism co-operatives in rural areas will work as a team with proper coordination of the members to encourage ecotourism activities such as wildlife watching, trekking, mountain climbing, river riding with the help of a wooden boat, cycling, river rafting, fishing, farming, etc. without disturbing and harming the environment, which will promote local culture and tradition without influencing local practice. As compared to Dudhsagar waterfall, Tambdi Surla Temple is less developed. Only the temple surrounding was recreated, but there were no other recreational activities that would entertain the tourists before reaching this temple. Even tour guide is the primary need of this destination. People find it challenging to know in-depth about the temple history. Only a few outlets are installed, such as tea stalls, dry coconut sellers, and God's other offering. Youths are only aware of co-operative societies as financial institutions. But most of them are unaware of the tourism co-operative. The residents have a positive attitude towards the promotion and development of this destination. Even in rural areas, every village has one youth club in which all youths join the membership of their youth club, enabling them to improve their standard of living and achieve their common goal. Now a day's, most youths are more active on social media. So as per the findings of the study, social media is the right platform to create awareness about tourism co-operatives. Whereas at Dudhsagar waterfall, most tourists are visited for trekking and enjoying nature. People do come to this spot because of the beatification of this place. But it is observed that most tourists find it difficult to properly dump their garbage at this spot due to the unavailability of proper dumping facilities. Even the installation of cable cars will be the best eco-friendly avenue and help

recreate this place.

10. Conclusion :

This study concluded about the youth perceptions towards Tambdi Surla Temple and Dudhsagar waterfall of a rural area located at Dharbandora Taluka of Goa. In a team, they will more focus on tourism peace and the development of natural resources with the proper coordination of the members. Due to the lack of cooperation between the rural people, they remained behind because these areas have a lot of scope for promotion and development of this tourist's destination to a more significant extent. They will be able to develop tourism at these places forming tourism co-operatives by helping each other grow and develop individually by providing subsidies, schemes, loans facility, etc., through rural tourism co-operatives. The members' proper planning and coordination are a must for rural tourism development in Goa.

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Analytical Strategies for Strengthening The Women's Co-operative Bank Ltd., Goa

Naik Vidisha V.*, Vaigankar Ashil B., Ghadi Pratiksha P.*****

Abstract:

Women's co-operative banks are retail commercial associations owned and governed by self-employed women. The Women's Cooperative Bank Ltd., a non-scheduled Urban Cooperative Bank, having registered office at Panaji-Goa, established on 21-12-1972. This article analyses the performance studies Impact of NPA on performance and predicts the sickness of Women's Co-operative Bank Ltd. It comprises secondary data, including annual reports of Women's Co-operative Bank Ltd. The data is analysed in Gretl software, Ordinary Least Squares Regression model techniques, and the CAMEL, Altman, and Grover. The study concluded that the women's co-operative bank is not likely to go into bankruptcy in the future year, which shows that the bank is in the safe zone for investment.

Keywords :

Cooperative, Women's, NPA, capital adequacy, operating profit.

1. Introduction :

For the economic development of a country, the banking sector is one of the key ingredients. The financial sector's growth and soundness are crucial for sound and accelerated economic growth, especially in the banking sector. For this reason, it can be said that the developing economy's growth depends on a resilient and vibrant banking system. (Mallick and Das 2020) Cooperation is a form of economic organisation based on specific values of life. It is a voluntary

*Assistant professor in commerce, ** M.Com II, Student, *** Assistant professor in commerce, Government College of Arts, Science & Commerce Khandola Marcela – Goa

and democratic association of human beings based on the equality of control and opportunity and equity of distribution. (Kumar,2002). The main areas of operation of co-operatives in India are agricultural credit, supplies, marketing and processing, functional co-operatives in the fields like dairy, poultry, fisheries, fruits, vegetables, public distribution of essential commodities, and urban credit, and housing co-operatives. (Meghna M. Valiyaveetil2020). The co-operative in India is more than 115 years old. In 1904 the first co-operative credit societies act was passed. To protect the interests of underprivileged sections of society, small financial institutions or banks were established cooperatively in urban and rural areas. These co-operative banks provide loans at lower interest rates to their members have all deposit schemes for their customers and provide a highly personalised banking experience (Preeti Suhalka, 2021). Co-operative banks are the self-governing associations of persons united voluntarily to meet their everyday needs. Women's Cooperative is an association of women who voluntarily cooperate for their social, cultural, and economic benefits through jointly owned enterprises. These organisations are held and governed by the women who use their services or the women who work there. Women's co-operative bank is the retail, commercial association owned and controlled by self-employed women as shareholders, and policies are framed by their own elected board of women workers. The bank is professionally managed by qualified managers accountable to the board. Such activities help create a favourable atmosphere for the development of women in the current world. Women's co-operative bank ltd is an urban co-operative non-scheduled bank situated at Panaji, North Goa. It was established on 21-12-1972 and operated under The Goa Co-operative Societies Act 2001 to help the women who face financial problems by granting them loans and advances. It accepts deposits, gives the loan to its members, and provides RTGS/ NEFT services.

2. Review of Literature

The following literature review was carried out to review some earlier work done by the scholars.

CD. Pena (2021) studied the effect of women executives on Bank performance. A study was made on banking firms listed in the Indonesian stock exchange from 2010 to 2019. The sampling method used was purposive sampling. The research model used was unbalanced panel data with a random effect model approach. The results obtained from this research were that female CFOs have a significant effect on ROE. **C. Balakrishna (2019)** attempted to study ICICI Bank from 2014 to 2018, using capital adequacy

ratios, asset quality ratios, management efficiency ratios, liquidity ratios, and CAMEL framework to analyse the financial performance. The study concluded that ICICI bank was in a growing trend. **Anjana Prasad's (2018)** research aims at studying the role of co-operative societies for women's empowerment in rural areas. The researchers also tried to find out the relationship between the social and economic background of rural women members & the level of awareness of co-operative dairy societies. The research concluded that co-operative societies play a vital role in achieving social change and economic development. Secondly, there is a positive relationship between the social & economic background of members and the awareness level of women.

Nivedita (2018), the research investigates the region-wise NPA status of Co-operative banks in India. The secondary data were analysed using Excel software. Investigation revealed that the state co-operatives saw a reduction in NPA, but the NPA had increased in a few forms based. Overall, there was a decrease in NPA in all the states. **Chackochan J Njavallil (2018)**, in his study, evaluated the financial performance of Upputhara Service Cooperative bank, using financial ratios, profitability analysis, analysis of deposits and loans, trend analysis, and comparative study from the period 2007-08 to 2013-14. A significant finding was that the overall performance of the Upputhara Service Cooperative bank was satisfactory. However, the study suggested an improvement in the current ratio of the bank. **Salunkhe Shyam Jivan (2017)** studied the historical background of women credit co-operative societies and the performance of selected women co-operative societies. The primary data was collected from 36 women co-operative societies of Dhule District & analysed by using MS excel and Simple Statistical Techniques. The study observed that all the women co-operative credit societies in the Dhule region were managed by women. Loans, fixed deposits, and daily collection were significant business activities. As per the research, nearly half of the credit cooperative societies performed well as these societies successfully recovered their loans. **Sunny Pandhre (2016)**, the study focused on deposit management of Bicholim Urban Co-operative Society, Goa. The researcher analysed the growth, deposits, credit, and credit deposit ratio of ten years and found that the number of branches, members, capital, and reserves increased during the study period and the overall performance of Bicholim urban co-operative society. **Bilas S. Kole (2016)** conducted a study on the financial position and growth trend of Devgiri Urban Cooperative Bank Ltd. Aurangabad (DUCBA). Data were analysed using statistical and mathematical tools. The study found that the growth trend of the DUCBA is satisfactory except for the current ratio.

3. Research Gap :

The literature review was carried out to understand the findings of earlier research work and the tools used. The previous researchers have studied the different co-operative credit societies, co-operative banks, urban co-operative banks, and women co-operative banks. They analysed the performance, growth trends, financial position, and landing practices of co-operative banks, evaluate the performance using the CAMEL Model and examine the impact of NPA on the performance of co-operative banks and the credibility of different co-operative banks.

However, no study seems to be done on the NPAs of women's co-operative banks. Also, no study has been carried out on the creditworthiness of women co-operative banks using Altman's model and Grover's model in Goa. Hence, the researcher has suitably titled the research as "Performance Analyses and Prediction of Sickness of Women Co-operative Bank Ltd, Goa."

4. Objectives of Research :

- To study the determinants of performance of the Women's co-operative bank Ltd.
- To study the Impact of NPA on the financial performance of the Women's co-operative bank Ltd.
- To evaluate the creditworthiness of the Women's co-operative bank Ltd. by using Altman's Model and Grover Model.

5. Research Hypotheses :

Based on the above-framed objectives, the hypotheses are noted as follows:

H₀₁: There is no significant impact of Net NPA, Investment, Operating Expenses, Operating profit, interest received, and return on investment on the profitability of the Women's Co-operative bank Ltd.

H₀₂: There is no significant impact of Gross NPA on Deposits, Net profit, Advances, Working Capital, Provision for NPA, Investment, Operating Expenses, Interest received, Return on Investment, and Share Capital of the women co-operative bank Ltd.

6. Research Methodology:

The present study period is from 2009-2010 to 2018-2019. The present study covers the state of Goa.

6.1 Data Collection :

Primary Data: The primary data was collected by interviewing the women's

Cooperative Bank Ltd CEO. Panaji Goa.

Secondary Data: - The required secondary data for the study is collected from the Annual reports of Women's Cooperative Bank Ltd.

6.2 Tools:

The secondary data is analysed by using Gretl software. MS Excel software is used to arrange the data for analyses. The researcher has also used CAMEL MODEL, ALTMAN'S MODEL/ ALTMAN Z- SCORE, and GROVER MODEL to achieve objectives.

7. Data Analysis And Interpretation :

The Data collected from annual reports of Women's co-operative bank ltd from 2009-2010 to 2018-2019 is analysed to get the results as per the objectives set for the study.

7.1 Determinants of performance of Women’s Co-operative Bank Ltd.

Table No. 1: Regression Analyses for selected variables.

	Coefficient	Std. Error	t-ratio	p-value
Constant	37.0602	45.2185	0.8196	0.4725
Net NPA	0.000325748	0.0337277	0.009658	0.9929
Investment	-0.0464773	0.0192073	-2.420	0.0942
Operating expenses	0.0941988	0.142583	0.6607	0.5560
Operating profit	-0.384345	0.173698	-2.213	0.1138
Interest Received	0.161105	0.159044	1.013	0.3857
Return On Investment	10.2119	1.87585	5.444	0.0122

Source: Compiled using annual reports of the Women’s Coop. Bank Ltd.

Table No.2 Impact of NPA on financial performance of Women’s Coop. Bank Ltd.

Mean dependent variable	51.77100	S.D. dependent variable	21.62610
Sum squared resid	257.8479	S.E. of regression	9.270885
R-squared	0.938742	Adjusted R-squared	0.816225
F(6, 3)	7.662162	P-value(F)	0.061563
Log-likelihood	-30.43831	Akaike criterion	74.87662
Schwarz criterion	76.99472	Hannan-Quinn	72.55307
Rho	-0.741534	Durbin-Watson	3.013468

Source: Compiled Using Annual Reports of the Women's Co-operative Bank Ltd.

The findings in table No 1 and 2 are tested on the following mentioned

hypotheses:

HO: There is no significant impact of Net NPA, Investment, Operating Expenses, Operating profit, interest received, and return on investment on the profitability of the women's Cooperative Bank Ltd.

The Adjusted R-squared for the regression model is 0.81,6225, indicating that 81.62% of the variation dependent variable is explained by given independent variables. The P-value (f) for regression is 0.061563, which is less than 0.10 at a 10% level of significance; hence we reject the null hypothesis, which states that there is a significant impact on Net NPA, Investment, operating expenses, operating Profit, Interest received, return on investment, on the net profit. The coefficient value for Net NPA 0.000325748, operating expenses is 0.0941988, interest received is 0.161105, return on investment 10.2119, which is positive. Hence, it can be concluded that the net profit, operating costs, interest received, and return on investment has a significant positive impact. The coefficient value for the acquisition is -0.0464773, and the operating profit is -0.384345, which is damaging and indicates a negative impact on investment and operating.

7.2 Application of Camel Model to Analyse the performance of the Women Cooperative Bank Ltd.

The CAMEL Model measures the performance of the bank from each of the essential categories like Capital adequacy, assets quality, management quality, earnings quality, and liquidity. All these categories are analysed, and their results are mentioned in tables. No: 3, 4, 5, 6, 7 and 8, as these tables give the detail of each area and reveal the final output of the camel model.

Table No. 3. The Capital Adequacy Ratio

Year	CARA	Debt Equity Ratio	Total capital adequacy ratio
2009-10	35.95	0.00	35.95
2010-11	31.37	0.00	31.37
2011-12	32.62	0.00	32.62
2012-13	33.55	0.00	33.55
2013-14	34.13	0.00	34.13
2014-15	40.62	0.00	40.62
2015-16	37.95	0.00	37.95
2016-17	39.33	0.00	39.33
2017-18	50.74	0.00	50.74
2018-19	55.23	0.00	55.23
Average	39.15	0.00	39.15
standard deviation	7.93	0.00	7.93

Source: - Compiled Using Annual Reports of the Women's Co-op Bank Ltd

Capital Adequacy ultimately determines how well the financial institution can cope with shocks to their balance sheet as the sound capital base strengthens depositors’ confidence.

From the above Table No. 3, it can be seen that the total capital adequacy ratio of women's co-operative banks is highest for the year 2018-2019, i.e. 55.23 and 31.37 is the lowest capital adequacy ratio for the year 2010-2011. The standard deviation of the capital adequacy ratio is 7.93, which indicate that variation in the capital adequacy ratio for the last 10 year is 7.93%.

Table No. 4. The Assets Quality ratio

Year	Gross NPA Ratio	Gross NPAs to Net Advances	Net NPAs to Net Advances	Gross NPAs to Total Assets Ratio	Net NPAs to Total Assets	Total Investment to Total Assets Ratio	Total assets quality ratio
2009-10	7.98	8.01	7.62	3.72	3.54	43.43	74.30
2010-11	8.65	8.66	8.54	3.91	3.85	44.55	78.16
2011-12	8.66	8.66	8.65	4.61	4.61	38.74	73.93
2012-13	7.56	7.56	7.54	4.33	4.31	37.10	68.40
2013-14	15.71	15.71	15.71	8.30	8.30	34.11	97.84
2014-15	17.66	17.66	17.64	8.69	8.68	32.77	103.10
2015-16	9.62	9.66	9.27	4.88	4.69	36.20	74.32
2016-17	9.80	9.80	9.80	5.62	5.62	29.29	69.93
2017-18	10.66	10.67	10.54	5.62	5.55	33.75	76.79
2018-19	10.59	10.60	10.55	5.21	5.18	36.51	78.64
Average	10.69	10.70	10.59	5.49	5.43	36.65	79.54
standard deviation	3.35	3.35	3.41	1.71	1.75	4.68	11.56

Source : Compiled Using Annual Reports of the Women's Co-op. Bank Ltd

Asset quality determines the healthiness of financial institutions against loss of value in the assets. Weakening the value of assets is a prime source of banking problems.

Table 4. shows the Assets Quality Ratio of the women co-operative bank ltd. It shows the highest total Assets Quality Ratio for 2014- 2015, i.e. 103.1, and 68.4 was the lowest total assets quality ratio for 2012-2013. 11.6 is the value standard deviation ratio which indicates that the asset quality ratio in the last 10 years is 11.6 %.

Table No. 5. The Management Efficiency Ratio

Year	Total advances to Total deposits	Business Per Employee ratio	Profit per employee ratio	total management efficiency ratio
2009-10	55.76	19.26	2.33	77.35
2010-11	53.92	23.48	3.02	80.42
2011-12	63.15	28.86	4.31	96.32
2012-13	64.89	33.84	1.44	100.17
2013-14	63.57	34.14	2.68	100.39
2014-15	62.51	26.22	1.24	89.97
2015-16	60.73	26.18	0.92	87.83
2016-17	68.60	30.83	2.55	101.98
2017-18	63.88	27.11	2.08	93.07
2018-19	59.77	24.85	0.85	85.47
Average	61.68	27.48	2.14	91.30
Std dev	4.34	4.62	1.08	8.59

Source: -Compiled Using Annual Reports of the Women's Co-op. Bank Ltd

Management quality indicates the financial institution's management, evaluated in capital adequacy, assets quality, and liquidity rating.

Table No. 5 Shows the management efficiency of the women's co-operative bank ltd and has 101.98 of the highest management efficiency ratio for 2016-2017, and the lowest is 77.35 for the year 2009-2010. The standard deviation of management efficiency is 8.59, which shows management efficiency is fluctuating by 8.59% for the last 10 years.

Table No. 6. The Earning Quality Ratio

Year	Net interest margin to total assets	Interest Income to Total income	Non-interest income to total income	Operating Profit to total assets ratio	Return on assets	Total earnings ratio
2009-10	0.13	98.06	1.94	1.92	1.02	103.07
2010-11	0.13	96.18	3.82	1.57	1.15	102.85
2011-12	0.12	96.60	3.40	1.69	1.32	103.13
2012-13	0.12	95.36	4.64	1.69	0.45	102.26
2013-14	0.16	9.79	90.21	2.52	0.86	103.54
2014-15	0.15	98.21	1.79	1.70	0.46	102.31
2015-16	0.11	97.70	2.30	1.09	0.33	101.53
2016-17	0.11	89.73	10.27	0.84	0.79	101.75
2017-18	0.13	92.85	7.15	1.07	0.71	101.91
2018-19	0.10	96.06	3.94	0.82	0.29	101.22
Average	0.13	87.05	12.95	1.49	0.74	102.36
Student	0.02	27.27	27.27	0.54	0.35	0.77

Source: -Compiled Using Annual Reports of the Women's Co-operative Bank

Ltd

Earning quality is the ability to create appropriate returns to expand and add capital, which is a critical factor in rating. Table No 6 shows the Earning Quality Ratio of women co-operative banks. It highlights that 103.54 is the highest earnings quality ratio for 2013-2014, and 101.22 is the lowest-earning quality ratio for 2018-2019. The standard deviation for the Earning quality ratio is 0.77, which shows that the earning quality ratio variation for the last 10 years is 0.77%.

Table No. 7.The Liquidity Ratio

Year	Liquid Asset to Total Assets	Liquid Assets to Total Deposits	Government Securities to total assets	liquid asset to demand deposits	Approved securities to total assets	total liquid ratio
2009-10	3.33	3.98	4.08	16.28	4.09	31.76
2010-11	2.80	3.34	3.56	12.20	3.57	25.47
2011-12	3.57	4.23	3.01	18.04	3.01	31.85
2012-13	5.38	6.10	2.82	27.42	2.84	44.56
2013-14	4.96	5.97	2.74	22.57	2.74	38.98
2014-15	7.92	10.07	18.96	36.56	18.96	92.48
2015-16	7.97	9.55	21.01	34.61	21.01	94.15
2016-17	7.83	9.36	19.46	29.48	19.46	85.59
2017-18	7.66	9.29	18.31	31.49	19.45	86.20
2018-19	8.34	10.14	28.53	32.93	28.53	108.47
Average	10.44	12.57	12.25	46.47	12.37	94.09
Std dev	2.21	2.75	9.90	8.42	9.98	32.00

Source : Compiled Using Annual Reports of the Women's Co-op Bank Ltd.

The liquidity position refers to a situation where an institution can obtain sufficient funds by increasing liabilities or converting its assets into cash quickly and at a reasonable cost. From the above Table No. 7, it can be seen that the total liquidity ratio is 108.47, which is the highest for the year 2013-2014, and the 25.47 was the lowest liquidity ratio for the year 2010- 2011. The standard deviation of the liquidity ratio is 32 for the last 10 years, which indicates the variation of 32% in the liquidity ratio.

Table No.8.The Camel Model Output

Year	Capital Adequacy	Assets Quality	Management Efficiency	Earning Quality	Liquidity	Total Camel value
2009-10	35.95	74.3	77.35	103.07	31.76	322.43
2010-11	31.37	78.16	80.42	102.85	25.47	318.27
2011-12	32.62	73.93	.96.32	103.13	31.85	241.53

2012-13	33.55	68.4	100.17	102.26	44.56	348.94
2013-14	34.13	97.84	100.39	103.54	38.98	374.88
2014-15	40.62	103.1	89.97	102.31	92.48	428.48
2015-16	37.95	74.32	87.83	101.53	94.15	395.78
2016-17	39.33	69.93	101.98	101.75	85.59	398.58
2017-18	50.74	76.79	93.07	101.91	86.2	408.71
2018-19	55.23	78.64	85.47	101.22	108.47	429.03

Source: - Compiled Using Annual Reports of the Women's Co-op. Bank Ltd

The highest camel Model value is 428.48 in the year 2013-2014, and while it is lowest in the year, 2010-2011 are 318.27.

7.3 The impact of NPA on the financial performance of Women's co-operative bank ltd.

Table No: 9 shows the Impact of Gross NPA on selected variables.

Variable	Adjusted R-square	Co-efficient	P-value
Deposits	0.275422	3.60546	0.0687
Net profit	0.448400	0.00188808	0.2048
Advances	0.291540	3.00830	0.0619
Working capital	0.039361	-38.7829	0.2757
Provision for NPA	0.027613	-0.0117869	0.2950
Investment	0.148577	-0.898386	0.1656
Operating expenses	0.447765	0.513949	0.0205
Operating profit	0.099198	0.101127	0.1959
Interest received	0.554278	0.457842	0.0082
Return on investment	0.114285	-0.00954105	0.1797
Share capital	0.307352	0.242691	0.0559

Source: Compiled Using Annual Reports of the Women's Coop Bank Ltd.

The findings in table no. are tested on the following mentioned sub-hypotheses:

H₀: There is no significant impact of gross NPA on the Women Cooperative Bank Ltd.' Deposits.

The Adjusted R-Square for the Deposits is 0.277422, which indicates that Gross NPA shows 27.54% of the variation in the above variable. The P-value for deposits is 0.0687, less than 0.10 at 10% of significance. As a result, we reject the null hypothesis, which means Gross NPA significantly impacts the Deposits. The coefficient value for Deposits is 3.60546, which indicates a positive effect of Gross NPA on Deposits.

H₀: There Is No Significant Impact of Gross NPA on the Net Profit of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Net Profit is 0.448400, indicating that Gross NPA shows 44.84 % of the variation in the above variable. The P-value is 0.2048, more than 0.10 at 10% of significance. As a result, we fail to reject the null hypothesis, which means there is no significant impact of Gross NPA on the Deposits.

H₀: There is no significant impact of gross NPA on the advances of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Advances is 0.291540, which indicates that Gross NPA shows 29.15% of the variation in the above variable. The P-value for Advances is 0.0687, less than 0.10 at 10% of significance. As a result, we reject the null hypothesis, which means Gross NPA significantly impacts the Advances. The coefficient value for Advances is 3.00830, which shows a positive effect of Gross NPA on Advances.

H₀: There is no significant impact of gross NPA on the Working Capital of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Working Capital is 0.039361, which indicates that Gross NPA explains 03.93 % of the variation in the above variable. The P-value for working capital is 0.2757, which is more than 0.10 at 10% of significance. As a result, we fail to reject the null hypothesis, which means there is no significant impact of Gross NPA on the Working Capital.

H₀: There Is No Significant Impact of Gross NPA on the Provision For NPA of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Provision for NPA is 0.027613, which indicates that Gross NPA shows 02.76 % of the variation in the above variable. The

P-value for working capital is 0.2757, which is more than 0.10 at 10% of significance. As a result, we fail to reject the null hypothesis, which means there is no significant impact of Gross NPA on the Provision for NPA.

H₀: There Is No Significant Impact of Gross NPA on the Investment of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Investment is 0.148577, which indicates that Gross NPA explains 14.85% of the variation in the above variable. The P-value for Investment is 0.1656, which is more than 0.10 at 10% of significance. As a result, we fail to reject the null hypothesis, which means there is no significant impact of Gross NPA on the investment.

H₀: There Is No Significant Impact of Gross NPA on the Operating Expenses of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Operating Expenses is 0.447765, which indicates that Gross NPA shows 44.77% of the variation in this variable. The P-value for Operating Expenses is 0.0205, less than 0.10 at 10% of significance. As a result, we reject the null hypothesis, which means Gross NPA significantly impacts Operating Expenses. The coefficient value for Operating Expenses is 0.513949, which shows a positive effect of Gross NPA on Operating Expenses.

H₀: There Is No Significant Impact of Gross NPA on the Operating Profit of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Operating Profit is 0.099198, which indicates a 09.91% variation in this variable shown by Gross NPA. The P-value for Operating Expenses is 0.1959, more than 0.10 at 10% of significance. As a result, we fail to reject the null hypothesis, which means there is no significant impact of Gross NPA on Operating Expenses.

H₀: There Is No Significant Impact of Gross NPA on the Interest Received of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Interest Received is 0.554278, which indicates that Gross NPA shows 55.42 % of the variation in this variable. The P-value for Interest Received is 0.00082, less than 0.10 at 10% of significance. As a result, we reject the null hypothesis, which means there is a significant impact of Gross NPA on Interest Received. The coefficient value for interest Received is 0.457842, which shows a positive effect of Gross NPA on Interest Received.

H₀: There Is No Significant Impact of Gross NPA on the Return On Investment of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Return on Investment is 0.114285, indicating 11.42 % of the variation in this variable as explained by Gross NPA. The P-value for Return on Investment is 0.1797 which is more than 0.10 at 10% of significance. As a result, we fail to reject the null hypothesis, which means there is no significant impact of Gross NPA on Return on Investment.

H₀: There Is No Significant Impact of Gross NPA on the Share Capital of the Women Cooperative Bank Ltd.'

The Adjusted R-Square for the Share Capital is 0.307352, which indicates that Gross NPA explains 30.73% of the variation in this variable. The P-value for Share Capital is 0.0559, less than 0.10 at 10% of significance. As a result, we reject the null hypothesis, which means Gross NPA significantly impacts Share Capital. The coefficient value for Share Capital is 0.242691, which shows a positive effect of Gross NPA on Share capital.

7.4 Application of Altman's Model to predict the sickness of the Women Cooperative Bank Ltd.'

The Altman z-score model was published in the year 1968 by Edward Altman. This model is used for predicting bankruptcy. The formula may indicate the probability that a bank will go into bankruptcy or not.

Formula: - $Z = 6.56(X1) + 3.26(X2) + 6.72(X3) + 1.05(X4)$

Where: -

- X1= Working Capital (current assets – Current liabilities)
Total Assets (measure liquidity of firm)
- X2= Retained Earnings
Total Assets (measures accumulated profits compared to assets)
- X3= Earnings Before Interest and Taxes (EBIT)
Total Assets (measures how much profit the firm's assets are producing)
- X4= Book value of equity
- In this model, if the z value is more significant than 2.6, the firm is said to be in the "safe- zone" and has a negligible probability of filing a bankruptcy.
- If the Z value is between 1.1 and 2.6, then the bank is in the "Grey Zone" and has a moderate chance of bankruptcy.

- If the Z value is below 1.1, then it is said to be in the "Distress Zone" and has a very high probability of reaching the stage of bankruptcy.

Table No: 11. Z-Score Values of the Women's Cooperative Bank Ltd.

Year	Formula $Z=6.56(X1)+3.26(X2)+6.72(X3)+1.05(X4)$	Altman Z score value	Decision
2009-10	$=6.56 \times 6.559995376 + 3.26 \times 0.031745994 + 6.72 \times 7.190525148 + 1.05 \times 0.02378382$	13.80605034	Safe zone
2010-11	$=6.56 \times 6.560003362 + 3.26 \times 0.008615824 + 6.72 \times 8.116222871 + 1.05 \times 0.024807905$	14.70964996	Safe zone
2011-12	$=6.56 \times 6.559998421 + 3.26 \times 0.011405951 + 6.72 \times 9.257693213 + 1.05 \times 0.027016716$	15.8561143	Safe zone
2012-13	$=6.56 \times 6.883274044 + 3.26 \times 0.010703995 + 6.72 \times 3.513070532 + 1.05 \times 0.028170341$	10.43521891	Safe zone
2013-14	$=6.56 \times 6.560003723 + 3.26 \times 0.013614555 + 6.72 \times 6.198198485 + 1.05 \times 0.029847754$	12.80166452	Safe zone
2014-15	$=6.56 \times 6.251902436 + 3.26 \times 0.012632185 + 6.72 \times 3.44090983 + 1.05 \times 0.03046404$	9.710644121	Safe zone
2015-16	$=6.56 \times 6.560002612 + 3.26 \times 0.003741386 + 6.72 \times 2.628806383 + 1.05 \times 0.032791252$	9.217858861	Safe zone
2016-17	$=6.56 \times 6.560003491 + 3.26 \times 0.015631835 + 6.72 \times 5.644527741 + 1.05 \times 0.032640379$	12.25280344	Safe zone
2017-18	$=6.56 \times 6.559998848 + 3.26 \times 0.002286758 + 6.72 \times 5.144103589 + 1.05 \times 0.036097547$	11.73791323	Safe zone
2018-19	$=6.56 \times 6.559999889 + 3.26 \times 0.013699652 + 6.72 \times 2.268011305 + 1.05 \times 0.036725283$	8.851036825	Safe zone

Source: - Compiled Using Annual Reports of the Women's Co-op. Bank Ltd.

Table no 11 shows the analyses of the Altman Z- Score model for the study period from 2009-2010 till 2018- 2019. The Altman Z-Score model can predict the bankruptcy of the women's co-operative bank ltd. The Z-Score values of women's co-operative bank ltd. It is more significant than 2.6, which means it is in the safe zone and has a negligible Probability of filing a bankruptcy.

7.5 Application of Grover's Model to predict the sickness of women's co-operative banks Ltd.

The Grover model is generated by redesigning and reassessing the Altman z-score Model. Grover model does categorise bankruptcy with a G-score of less than or equal to 0.02 ($G < 0.02$) while it does not go bankrupt if it is more than or equivalent to 0.01 ($G > 0.01$) (Grover 2003).

Formula: - $CAR = 1.65(X1) + 3.404(X2) - 0.016ROA + 0.06$

Where: - CAR= Capital Adequacy ratio

X1= Working Capital/Total Assets

X2= Earnings before interest and tax / total assets

ROA= Net Income/total assets

Table No. 12. The G-Score Value of the Women's Cooperative Bank Ltd.

YEAR	FORMULA CAR= $1.65(X1) + 3.404(X2) - 0.016ROA + 0.06$	GROVER'S MODEL VALUE	DECISION
2009-2010	$= 1.65 \times 1.649998837 + 3.404 \times 3.01660421 - 0.048265667 + 0.06$	4.771868714	Safe Zone
2010-2011	$= 1.65 \times 1.65000846 + 3.404 \times 2.794671932 - 0.044714751 + 0.06$	4.546387529	Safe Zone
2011-2012	$= 1.65 \times 1.649999603 + 3.404 \times 2.582527741 - 0.041320444 + 0.06$	4.330847788	Safe Zone
2012-2013	$= 1.65 \times 1.731311307 + 3.404 \times 2.71252275 - 0.043400364 + 0.06$	4.544234421	Safe Zone
2013-2014	$= 1.65 \times 1.650000936 + 3.404 \times 2.799164146 - 0.044786626 + 0.06$	4.550951709	Safe Zone
2014-2015	$= 1.65 \times 1.572505948 + 3.404 \times 3.013113888 - 0.048209822 + 0.06$	4.690829659	Safe Zone
2015-2016	$= 1.65 \times 1.650000657 + 3.404 \times 2.85291418 - 0.045646627 + 0.06$	4.605561464	Safe Zone
2016-2017	$= 1.65 \times 1.650000878 + 3.404 \times 2.601841727 - 0.041629468 + 0.06$	4.350472072	Safe Zone
2017-2018	$= 1.65 \times 1.64999971 + 3.404 \times 2.561184754 - 0.040978956 + 0.057$	4.309163421	Safe Zone
2018-2019	$= 1.65 \times 1.64999972 + 3.404 \times 2.489373747 - 0.03982998 + 0.057$	4.236203698	Safe Zone

Source: Compiled Using Annual Reports of the Women's Co-op Bank Ltd.

The Grover model is generated by redesigning and reassessing the Altman z-score Model. Grover model does categorise bankruptcy with a G-score of less than or equal to -0.02 ($G < -0.02$). While it does not go bankrupt if it is

more than or equivalent to 0.01 ($G > 0.01$) (Grover 2003), The G-Score Value of women's coop banks for the past ten years is more than 0.01, which means that banks are not likely to go towards bankruptcy in the future.

8. Findings of the Study :

- The study found that investment, operating expenses, operating profit, interest received, return on investment, and net NPA significantly impact net profit. The Net NPA, operating costs, interest received, return on investment positively impact. But the operating profit and investment have a significant adverse effect on the net profit.
- Camel model shows that The Women's Cooperative Bank Ltd maintains capital adequacy, the quality of assets held by them, managerial efficiency in the bank, earning rate, and liquidity. The average camel model value is 429.03, and its significant contributors are liquidity by 108.47, followed by making quality which is 101.
- The study found that Deposits, advances, Operating Expenses, Interest received, and Share Capital significantly impact Gross NPA. Also, these variables have a positive impact on the NPA. The Net Profit, working capital, provision for NPA, Investment, Operating Profit, and return on investment has no significant effect on Gross NPA.
- As per Z-score analyses, it can be predicted that from the past 10 years, i.e., 2008-09-2018-19, women's co-operative banks are in the safe zone and not likely to go into bankruptcy in the future.
- As per the G-score analyses, it can be predicted that women's co-operative banks have been in the safe zone for the past ten years and are not likely to go into bankruptcy.

9. Conclusion :

Co-operative banks play a crucial role in promoting rural finance and other small businesses. They provide an alternative credit source to the commercial banks and defective money lenders system and encourage the saving habits among the people. Also, the women's co-operative bank helps and guides the women in establishing an enterprise by providing financial support to women's empowerment. Women's co-operative bank ltd plays a vital role in promoting the women of Goa, and this bank is also performing well and providing various facilities for women entrepreneurs. In this research, the researcher studied the financial performance of the women's co-operative bank ltd and predicted the sickness of the Women's Cooperative Bank Ltd.

The present study concludes that the net profit of the women's co-operative bank is determined by the various variables which have a positive impact on

the net profit, which is suitable for the bank as it helps improve the financial performance of the bank. The bank can also maintain capital adequacy at the required level. The bank holds the assets quality, managerial bank, earning rate, and liquidity are well maintained.

Women's co-operative banks should focus on reducing the NPAs as most of the selected variables for the study of NPA impact shows a negative effect. This will affect the performance of the women's co-operative bank Ltd if it is not reduced. The conclusion also concludes that women's co-operatives are not likely to go into bankruptcy in the future year, which shows that the bank is safe for the customers' investment.

10. Suggestions :

The women's co-operative bank Ltd is performing well, but still, there are some areas the bank has to improve upon. Such a bank should focus on reducing the NPA as it will affect the bank's performance as most of the variables hurt gross NPA, which may affect the bank's performance. Although the Women's Cooperative Bank Ltd is in the safe zone, the value of the Z-score is decreasing every, so the bank has to control these z score values. The bank should expand its branches in the state of Goa as there are only 2 branches in Goa at Present one is in Panaji city and another in Mapusa city. With the increasing number of branches, the bank can provide its banking facilities to the rural women and urban women of other cities and towns of Goa.

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Dr. Kishori Pawar*, Dr. R. D. Kumbhar**

Abstract:

IT risks arise from implementation of computer systems in the day-to-day conduct of the bank's operations, settlement of account books, and storage and retrieval of information and reports. As per guidelines of RBI cooperative banks are using CBS system with various delivery channels. Banks are facing IT related risks because of rapid development in Information technology and tremendous use of Internet. Satara DCC Bank is leading district cooperative bank in India. Bank opted CBS with delivery channels Viz. ATM, UPI, RTGS, NEFT, IMPS and CTS since 2013. During Covid-19 pandemic many banks in India are victims of cyber attack in which cooperative banks are ahead. This research work is an effort to study present status of IT risk management in the Satara DCC bank and to identify problems in IT risk management. The research paper also provides remedial measures for IT risks.

Keywords:

Information Technology (IT), IT security, IT Risk Management

Introduction:

Information technology is widely recognized as the engine that enables the cooperative banks to provide better services to its customers and facilitating greater productivity as a nation. Banks in the public, private and cooperative sector depend on technology-intensive information system to successfully carry out their mission and objectives. Information systems are subject to serious threats that can have adverse effects on organizational assets, individuals, other organizations and the nation by exploiting both known and unknown vulnerabilities to compromise the confidentiality, integrity or

*Assistant Professor, MKSSS's College of Computer Application for Women, Satara, Maharashtra, India **Hon. Professor, Rayat Shikshan Sanstha's, Rayat Institute of Research and Development, Satara, Maharashtra, India

a availability of the information being processed, stored or transmitted by those systems.

Threats to information and information systems can include environmental disruptions, purposeful attacks and human/machine errors and result in great harm to the national and economic security interests of the nation. Therefore, it is imperative that leaders and managers at all levels understand their responsibilities and are held accountable for managing information security risk that is, the risk associated with the operation and use of information systems that supports the mission and objectives of cooperative bank.

It has been observed that banks in India are using IT based systems from last three decades for performing different banking functions. In fact implementation is not everything all but its perfect governance is a must to get the optimum benefits of IT enabled modern technologies. Business process transformation is very difficult without adequate IT governance. IT governance is essential to mitigate related risks and avoid project failure. Ineffective IT governance and IT risk management is likely to be a root cause of the negative results.

Bank Profile:

"Satara District Central Co-operative Bank Ltd., Satara" being the economic power house of the Satara District; Bank always engaged in the work of the socio economic upliftment of the farmers since 1950. Bank is the hub of a flourishing movement that is bringing prosperity, well being and better standard of living to the rural atomic scenario (areas) in the district.

The Satara District Central Co-operative Bank having 308 Branches and 12 Extension counters along with 10 Divisional offices (as on 31st March 2021). To give the better and quick service to the customers, to make them satisfied, bank has implemented Core Banking System in all branches and extension counters. The bank is providing services like RTGS/NEFT, ATMs, Micro ATMs, Any Branch Banking, CTS, IMPS, UPI and APBS, NACH-CR/DR etc.

Salient features of Bank are as below:

- The Bank has achieved ISO 9001:2008 Certificate by giving better services to customers and by making continuous up-gradation in customer service to satisfy them.
- The Bank has launched innovative deposit schemes offering attractive interest rates as compared with other banks in the market. The

maximum 6.00% rate of interest is offered for fixed deposit. One percent more rate of interest is given than normal fixed deposit rate for senior citizens. The existing interest rate on savings deposit is 3.25% and interest is calculated on daily basis

- Bank provides zero interest crop loans to farmers up to Rs 3.00 Lacs and zero interest education loans to farmer's for their children seduction in country and abroad.
- Bank provides the over draft facility to Government salary earner employees as like primary / high schoolteachers
- Bank established network of self help groups for empowerment of women's in Sataradistrict.
- Bank continues the 100% recovery at bank level from last four years Gross NPA of the bank is 0.17 % and Net NPA is 0 % for the year2020-21,
- Bank has been awarded by NABARD's "Best Performance Award" continuously for last six years. Moreover, bank has won Maharashtra State co- op Banks Association's first prize as a "Best District Central Co-operative Bank", for the last tenyears.

Objectives of Study:

The study is confined to the following objectives.

1. To study present status of IT risk management.
2. To identify the issues in IT riskmanagement.
3. To suggest remedial measures for IT risk management related issues.

Research Methodology:

The case study is based on systematic data collection, analysis, and interpretation of the data related to IT related risks and IT risk management practices used in SDCC bank. Data about status of possible IT risks in the bank, present status of IT risk management, problems in IT risk management etc. is required for study. The primary data is collected from IT department officials with the help of structured schedule and interview of IT officer. The secondary data required for study is collected from bank documents and website.

Findings:

The study finds that top management acknowledges the important pervasive role of information technology in bank and that consequential threats originating and created from the use information technology can

be detrimental to bank effectiveness and efficiency. The major findings of study are as below:

- a) Satara DCC bank has implemented IT from last two decades. At present Bank is using CBS along with RTGS, NEFT, IMPS, UPI ATMs, Micro ATMs, CTS, APBS, NACH-CR/DR etc. delivery channels.
- b) Bank has own Data Centre at Satara and managed by outsourced vendor and DR site is at Pune which is on cloud of Airtel.
- c) Bank appointed three senior grade technical officers along with coordinators at each taluka place office.
- d) Various IT related risks observed in bank are as below:
 - Cyber security risk
 - IT flexibility and continuity risk
 - Technology vendor and third-party risk
 - Data management risk
 - IT program execution risk
 - Technology operations risk
 - Risk of ineffective risk management
 - Hardware and software failure
 - Malware
 - Viruses
 - Spam, scams and phishing
 - Human error
 - Strategic risk of IT
- e) Bank management is aware about IT risk management and designed IT & cyber security policy.
- f) Bank conducts system audit and VAPT regularly on concurrent basis through CISA certified auditor.
- g) Bank uses following security control measures for protecting IT assets from security threats-
 - Encryption of customer information
 - Antivirus management program to protect from malicious content
 - Anti-spyware management program to protect end-user systems
 - Physical access control mechanisms
 - Logical access control mechanisms
 - Formal interruption detection program for monitoring host and network activity
 - Incident response plan defining responsibilities and duties for damage and minimizing IT risks
 - Topologies, diagrams or schematics depicting physical & logical

- operating environments
 - Employee security awareness training program
 - Firewall
 - Hidden camera system
 - Procedures for testing backup media at offsite location
 - Power backup system
 - Fire protection and alarm
 - Remote access protocols
 - Log on/log off procedures
 - Deployed deception technology at endpoints
- h) Bank maintain appropriate redundancies in IT infrastructure for avoiding various risks. For many activities i.e. Data centre operation, DR operations bank is fully dependent on vendor to reduce vendor dependency. Bank has DR at Satara old HO and DR at Pune with near DR at HO. The DR place is not as per RBI guidelines i.e. Radical Distance from DC to DR should be less than 150 kilometers.
- i) Bank has implemented different security measures for their logical and physical IT assets, secured mailing systems, firewalls, deception technology at end points, data encryption, authentication systems etc. but lacking to design effective IT risk management program.
- j) Cyber Security operation Centre is mandatory as per RBI guidelines bank has not initiated establishment of CSOC.
- k) There is no separate mechanism for risk management and risk impact analysis is not observed
- l) Bank has not adopted standard IT governance practices.

Suggestions:

Based on Study, the authors provide following recommendations to Bank:

- Bank should initiate strengthen IT department by appointing necessary technical staff for performing core functions in data centre. Bank should design IT structure with roles and responsibilities of IT staff. Bank should also recruit necessary staff according to structure. IT Structure includes IT Manager, System Analyst, Database Administrator, Network Administrator, Security Administrator, Hardware and Software Engineer s etc.
- At present bank is using windows OS, to get robust security bank should think to go on Linux platform which reduces security risks as well as cost on licensing.
- Banks should take care that IT should be regular item in the board's meeting agenda.

- The increasing use of IT within bank results in an increasing existence of IT- related risk that, if not properly managed, can discourage bank from achieving its business goals. Bank should manage and control IT related risks effectively through establishing IT Risk management program. IT risk management is inherent activity in IT implementation. Hence bank should make assessment of IT risk, risk impact analysis and make action plan for management of IT risks
- Bank should conduct VAPT from CERT-In empanelled auditors.
- Bank should set out technology risk management principles and best practices for IT risk management in the following:
 - (a) Establish Sound and Robust Technology Risk Governance and Oversight The board of directors and senior management at bank play an integral part in the over sight and management of technology risk. The board of directors and senior management should cultivate a strong risk culture, and ensure the establishment of a sound and robust technology risk management framework.
 - (b) Maintain Cyber Resilience Strong cyber resilience is critical for sustaining trust and confidence in financial services. FIs should adopt a defense-in-depth approach to strengthening cyber resilience. It is also important that bank establish and continuously improve their IT processes and controls to preserve confidentiality, integrity and availability of data and IT systems.
 - (c) The bank should carry out regular scenario-based cyber exercises to validate its response and recovery, as well as communication plans against cyber threats.

Conclusion:

IT projects in banks have the risks and the uncertainties. Risks can be mitigated, managed, and maintained in accordance with the planning and assessment. The common risks in several literatures might be the user requirement, project complexity, planning and control, team, organizational environment, technology, and financial risk. The processes in risk management begin with identifying vulnerabilities and threats to information resources, risk assessment, and risk control identification that might be done to reduce the risk to an acceptable level. If the risk management is applied properly, the chance of the success of the project is done can be increased.

This research study has carried out to study the present status of IT risk management in Satara DCC bank. The bank management is aware about IT risks and implemented various control measures for avoiding IT risks. There

is also scope for implementing standard risk management frameworks. Researchers would like to suggest bank should go for implementation of IT governance framework, which is essential to mitigate IT related risks and avoid IT project failures.

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Strengthening community by adopting E-Governance (A Case study of State of Goa)

Ms. Shilpa D. Korde*, Dr. Sitaram V. Sukthankar**

Abstract:

In today's era, Information and Communication Technology has brought a remarkable change in the world, enabling the Government to deliver better services to citizens in every part of the country. It plays a vital role in providing e-governance services to the citizens. E-governance is one of the most effective approaches of the Government to improve public organizational performance. In past decades, citizens often faced many challenges obtaining birth and death certificates, tax filing, and other general utility services. Hence the Government of Goa has taken the initiative of starting e-governance services through acceptance of technological advancement in information and communication processes to provide facilities to the citizens. The study's primary purpose is to assess the adaptability of e-governance services and determine the impact of demographic factors on the adaptation of e-governance services in Goa. To achieve this objective, data was gathered from 280 citizens through a self-administered questionnaire which was considered the most appropriate primary survey instrument in Technology Model (TAM) used in this study. This research validates the developed TAM model and evaluates the variance of the outcome variable (the adaptability of e-services). Five factors were adopted as determinants of the adaptability of e-services: perceived ease of use, perceived usefulness, perceived quality, perceived trust, and personalization. Data analysis is done by using t-test, ANOVA, and multiple regression analysis. The study's findings revealed a significant and robust relationship between all the five factors and the adaptability of e-governance services. This study offers an understanding of citizens' adaptation of e-governance services with the help of established theories such as TAM and various factors that influence the e-government adaptation concerning Goa.

*Research Scholar and Assistant Professor in Commerce Rosary College of Commerce and Arts, Navelim, Salcete- Goa. **Research Guide, Associate Professor in Commerce and Vice-Principal (PG Programmes) Government College of Arts, Science and Commerce, Khandola Marcela –Goa.

Key Words:

E-Governance, Information and Communication Technology, citizen's adaptation, Technology Acceptance Model.

1.Introduction:

Electronic governance (e-governance) is a unique feature of public management that changes how the Government deals with its citizens. It uses information and communication technologies to provide government services to the people. It ensures transparency, the efficacy of delivery of services, cost-effectiveness efficiency, and accountability of public authorities (Hamed, 2018). The Government uses e-Governance for web-based Internet applications and other information technologies. Different government agencies of information technologies can transform relations with citizens, businesses, employees and other arms of Government. These technologies serve a variety of benefits such as better delivery of government services to citizens, improved interactions with business and industry, empowerment of citizens through access to information, or more efficient government management. The resulting benefits can be reduced corruption, increased transparency, greater convenience, revenue growth, and cost reductions (Gronlund, 2004).

To improve public services and democratic processes, e-Government uses information and Communication Technologies in public administrations combined with organizational change and new skills. (Felix et al. 2011). E-governance is a tool for leveraging the potential of Information and Communication Technology (ICT) for improving the effectiveness of government activities, strengthening the democratic process, leading to more empowered citizens and more transparent government offices (Dawes, 2008).

In recent times, most of India's state governments have taken the initiative to accept potential e-services to utilize beneficial financial development. Technological advancement has provided efficient management of government offices and the Information Technology sector. The State of Goa is one of the most significant states where the citizens adapt and accept several e-governance public utility services.

2. Literature Review :

Dwivedi Y. K. (2017) evaluated nine well-known theoretical models of information technology adoption and identified 29 different constructs. The researcher developed a unified model of e-government adoption (UMEGA) and validated it by using data collection of 377 respondents from seven selected cities in India. The result revealed that the proposed unified model explained the highest variance on behavioural intention.

Napitupulu D. (2017) aimed to determine variables related to e-Governance adoption. The researcher contributed technological aspects, attitudes, and behaviours of its users (personality traits), which influence technology adoption. The researcher developed a technology adoption model that incorporates some best practices related to the diffusion of technology such as TRI, TAM, UTAUT, IS/IT Success Model, and other influencing factors for e-governance adoption such as Trust and Compatibility.

Taejun (David) Lee (2021) empirically tested the Democratic E-governance Website Evaluation Model (DEWEM) that Lee-Geiller and Lee (2019) conceptually created through a series of measurement development procedures. The findings indicated that the validated model consists of 25 statements under 5 factors, whose associations to the outcome of democratic e-governance were statistically significant. The validated model also showed significant correlations with citizens' satisfaction and intention to use the website.

Al Gahtani (2016) studied that essential tools or a backbone for modern communications are the Internet and networks, which transformed the world into ubiquitous connectivity that is, anytime, anywhere, access to the digital network is always available and digital services.

Kaur and Singh (2015) showed that culture, trustworthiness, perceived public value, usefulness, ease of use, and attitude contributed significantly to citizen adoption of e-government services in Punjab.

3. Research Questions :

- How does the state of Goa assess the adaptability of e-governance

services?

- What demographic factors influence the adaptability of e-governance services in the state of Goa?

4. Objectives of the Study:

- To assess the adaptability of e-governance services in the state of Goa.
- To determine the impact of demographic factors on the adaptation of e-governance services in the state of Goa.

5. Research Methodology :

The methodology is one of the most significant aspects of research study that helps to enhance research reliability and accuracy. The methodology has provided a proper systematic process to complete and get the relevant results in this research. Since the targeted population for the study is individual citizens, it was decided that an online data collection approach be used since the potential respondents would have had access to the internet. A simple random sampling method is employed to choose citizens, and data are gathered from 280 citizens through the questionnaire method. Percentage analysis is done to examine the demographic profile of citizens, and the mean and the standard deviation is used for the adaptability of e-governance services. t-test and ANOVA tests are adopted to scrutinize the difference between the demographic profile of citizens and acceptance of e-governance services. Multiple regression analysis is applied to assess the impact of factors on the adaptability of e-governance services.

6. Results And Discussion :

Demographic Characteristics of Respondents

The demographic characteristics of respondents are shown in Table-1. The results of the demographic profile of the respondents are summarised in Table 1. Based on Table 1, in terms of gender, there is an equivalent distribution between males (47.50 per cent) and females (52.50 per cent). In terms of ages, most of the respondents are aged below 25 years old, forming 32.85 per cent, while the age cluster with the minor percentage is above 56 years old with 10.36 percent. Concerning education level highest number of citizens are from graduation, forming the rate of 40 percent of the total respondents. There is an equivalent distribution between married (46.07 per cent) and unmarried (53.93 per cent) for marital status. The majority of citizens receive Rs.35,001 – Rs.45,000 per month, forming 27.00 per cent of the total respondent. In terms of occupation, the majority of the respondent are private-sector employees comprising 41.07 percent.

Table-1. Demographic Profile of Citizens

Demographic profile	Number of Citizens	Percentage
Gender		
Male	133	47.5
Female	147	52.5
Age		
Below 25 years	92	32.85
26 – 35 years	53	18.93
36 – 45 years	43	15.36
46 – 55 years	63	22.5
Above 56 years	29	10.36
Education		
Under- Graduation	100	35.71
Graduation	112	40
Post-Graduation	68	24.29
Monthly Income		
Less than Rs.25,000	72	25.71
Rs.25,001 – Rs.35,000	65	23.21
Rs.35,001 – Rs.45,000	76	27.14
Rs.45,001 – Rs.55,000	27	9.65
More than Rs.50,000	40	14.29
Marital Status		
Married	129	46.07
Unmarried	151	53.93
Occupation		
Unemployed	84	30
Self –employed	18	6.42
Government employee	63	22.5
Private sector employee	115	41.07

Based on the existing research literature, e-governance adaptability variables were identified, such as perceived ease of use, usefulness, quality, trust, and personalization. Mean scores and standard deviation for adaptability of e-governance services are based on the data gathered from distributed questionnaires; there are 20 items related to the adaptability of e-governance services.

Table 2: Mean Scores And Standard Deviation for Adaptability of E-Governance Services

Factors	Mean	Standard Deviation
Perceived Ease of use		
Usability	3.39	1.04
Navigation	3.89	0.83
Accessibility	3.76	0.95
Helpfulness	3.94	0.9
Perceived Usefulness		
Content	3.93	1.01
Timeliness	3.29	1.09
Transparency	3.8	0.99
Accountability	3.31	1.05
Perceived Quality		
Accuracy	3.25	1.05
Reliability	3.83	0.84
Easiness	3.32	1.01
Relevancy	3.79	0.92
Perceived Trust		
Trustworthiness	3.4	1.01
Privacy	3.88	0.95
Security	3.86	0.98
Risk	3.43	1.02
Personalization		
offers a choice of languages	3.92	0.97
Allows choice of font size	3.89	1.02
Links to other websites	3.34	1.06
Provides various e-governance service option	3.35	1.08

Based on Table 2, the overall means score was recorded among all factors, showing a consistent mean score between 3.29 to 3.92. The standard deviation varied between 0.84 to 1.08.

Demographic Profile of Citizens And Adaptability of E-Governance Services :

Independent samples T-test and ANOVA

To scrutinize the difference between the demographic profile of citizens and adaptability of e-governance services, t and ANOVA tests are employed, and the results are shown in Table-

Table-3 : Difference between the demographic profile of citizens and adaptability of E-Governance services

Particulars	t-Value / F-Value	Sig
Gender and adaptability of e-governance services	5.078** (t-value)	.000
Age and adaptability of e-governance services	7.314** (F-value)	.000
Education and adaptability of e-governance services	8.335** (F-value)	.000
Monthly Income and adaptability of e-governance services	6.769** (F-value)	.000
Marital Status and adaptability of e-governance services	4.590** (t-value)	.000
Occupation and adaptability of e-governance services	4.489** (F-value)	.000

*** Significant At 1 % Level**

Results:

The above table no. 3 shows that t-values and F-values are significant, and these values explain that a substantial difference exists between the demographic profile of citizens and the adaptability of e-governance services.

Regarding gender, marital status, and among groups of citizens with different income groups, there are no statistically significant differences regarding the adaptability of e-governance services.

Among groups of citizens of different ages and education levels, it was

observed that there exist statistically significant differences concerning five factors and adaptability of e-governance services. The citizens who have finished graduation are the most satisfied and evaluate all the adaptability dimensions at higher levels than the other education groups. Based on these findings, it can be argued that the lower the education level of the citizens is, the higher the adaptability of e-governance services. The better-educated citizens seem to be more in demand of services and maybe more informed. It was also observed that a significant difference in the means of occupation concerning adaptability of e-governance services.

Impact of Five Factors on the adaptability of E-Governance services in the state of Goa :

Table-4 : Impact of Five Factors on Adaptability

Five Factors	Regression Coefficients	t-value	Sig
Perceived ease of use	.273**	6.290	.000
Perceived usefulness	.335**	7.606	.000
Perceived quality	.375**	7.175	.000
Perceived trust	.380**	8.764	.000
Personalization	.418**	8.342	.000
R ²	0.65	-	-
Adjusted R ²	0.63	-	-
F-value	16.368**	-	.000

*** Significant At 1 % Level**

Results: The findings from table no. 4 indicate a significant and robust relationship between perceived ease of use, perceived usefulness, perceived quality, perceived trust, personalization and adaptability of e-services which is considered a dependent variable. The coefficient of determination (R²) value is 0.65 indicates that the independent variables explain 65 per cent of the variance in overall adaptability of e-governance services with an adjusted R-Square of 63 per cent and F-value of 16.368, revealing the model is significant.

On the individual determinants, perceived trust was the most critical determinant of adaptability of e-governance services (t=8.764, p<

0.001). This was followed by Personalization ($t=8.342$, $p< 0.01$). The third determinant is the Perceived usefulness ($t=7.606$, $p< 0.001$), whilst Perceived quality is followed as the fourth determinant ($t=7.606$, $p< 0.01$). Finally, Perceived ease of use ($t=6.290$, $p< 0.01$) was the last but not the minor determinant of adaptability. In this regard, all the factors used to measure perceived ease of use, usefulness, quality, trust, and personalization were positively and statistically significant in determining adaptation of e-governance services.

7. Summary of Findings :

Firstly, it was observed that the overall means score was recorded among all factors, showing a consistent mean score between 3.29 to 3.9 2 and the standard deviation varied between 0.84 to 1.08.

Secondly, there are no statistically significant differences among the demographic profile regarding gender, marital status and income groups and adaptability of e-governance services. It was also observed that a substantial difference in the means of ages, educational level and occupation concerning adaptability of e-governance services.

Thirdly, Perceived ease of use, usefulness, quality, trust, and personalization was positively and statistically significant in determining adaptation of e-governance services.

8. Conclusion:

Electronic Governance in Goa is in the phase of development. The functionaries and interaction platforms created using ICT as a medium of information exchange will enhance the developmental role of electronic governance and create bases for sustainability within the governance system. To derive benefits from ICT based systems, customized models, tools, information sharing platforms, and interactive services have been developed, keeping in view the needs of citizens. The concept of e-governance has assumed significant importance with the evolving digital economy. The success of any electronic governance system depends upon the policy and financial capacity of concerned state governments and the cooperation of citizens.

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Cooperative Audit: A Tool for Assessment and Strengthening of Consumer Cooperative Stores

***Dr. M. Jansirani, **Dr. B. Tamilmani,**

Abstract:

Consumer Cooperatives one of the strongest networks in the retail sector, widely organized for serving the consumers with quality consumer products at reasonable prices, playing a vital role in controlling the prices of commodities by adopting market intervention strategies. Through their organizational networks, they cover a large number of people a small means who otherwise resort to be exploited by unscrupulous middlemen and traders.

The Consumer Cooperatives aim at serving the consumers in general and their members in particular by supplying quality consumer products at reasonable prices. They play a vital role in controlling the prices of commodities by adopting market intervention strategies. The Consumer Cooperative Stores at District and State levels purchase goods in bulk and supply them to the Primary Consumer Stores. In order to stabilize the price line and provide succor to the common man, the Government had taken a decision to strengthen the distributive network through consumer cooperatives in the country by introducing a Centrally Sponsored Scheme.

The Government of India has brought 97th amendment to the constitution to promote voluntary formation, autonomous functioning, democratic control and professional management of cooperative societies. As per the amendment it is obligatory for all cooperative societies to get their accounts audited at least once in a year, before 1st of September following the close of the year by the Director of Cooperative Audit.

The objectives of the present study are; i) To understand the practices of cooperative audit in Consumer Cooperatives, ii) To ascertain the cooperative audit as a tool for assessment of Performance of the select Consumer Cooperative Wholesale Stores and iii) To understand the cooperative audit as a management tool for strengthening the Performance

*Guest Faculty

**Dr.B.Tamilmani, Professor, Department of Cooperation, GRI (DTBU)

of Consumer Cooperatives in future. Case study method is adopted for this study. The Dindigul District Consumer Cooperative Wholesale Stores (DDCCWS) was selected purposively. The period of the study covered was from 2015-16 to 2019 -20. The select store is running supermarket as its units. The store mainly deals with Purchase and Sales. There are two methods of branch accounts adopted by the wholesale stores. It is mandatory to every type of cooperative socisocietygo for auditing once in a year. The final audit is a statutory annual audit conducted in every registered society having moderate turnover after the closing of every financial year. As it is wholesale stores, having a large volume of transactions Interim audit is conducted in one or two spells before the final audit for the year, depending upon the availability of time and the volume of transactions. The store has entered all the business details namely, Purchase, Sales, Stock and Accounting, and auditing by manual only. The ERP (Enterprise Resource Planning) software is not fully adopted by the store.

Consumer cooperative audit classification has to be made on the following basis. If a cooperative scores 60 and above marks, it is placed under 'A-Class - a good society. 'B' class societies are found scoring 45 marks to 59 marks – performance-wise mediocre type. 'C' class societies are poor category. 'D' class societies are dormant category, unless it has to improve itself to 'C' class, it may be stopped its functioning. Auditing as a control tool of management to review the performance of the stores and management system and suggestions for improving the efficiency or effectiveness of the organization. Administrative auditing is a critical review of the soundness and propriety of the decisions taken in the past and helps management to correct mistakes and improve methods. Cooperative Audit helps the Store to correct their mistakes in the books of accounts and it helps to have true and fair view of the financial statements as well as the organization. As the cooperative store has adopted ERP solution in all the business activities, It has updated all the accounts of the business trading, Business, Financial and Administrative which facilitates the speedy audit. The audit helps the management to take decisions.

Cooperative Audit helps greatly to perform the activities in line with the well set cooperative principles, values, Act and Rules. Moreover, through Audit, it is brought to the light all kinds of errors, mistakes, embezzlement, frauds and various other unfair means and it meticulously guides those unfair means will not reoccur in the business. It clearly indicates where the cooperative society presently stood at and it also gives lights, where the same society wants to go.

Keywords:

Consumer Cooperatives, Cooperative Audit, Tool for Assessment of Performance, Audit Classification

Introduction :

Consumer Cooperatives one of the strongest networks in the retail sector, widely organized for serving the consumers with quality consumer products at reasonable prices, playing a vital role in controlling the prices of commodities by adopting market intervention strategies .Through their organizational networks they cover a large number of people a small means who otherwise resort to be exploited by the unscrupulous middlemen and traders.

The Consumer Cooperatives aim at serving the consumers in general and their members in particular by supplying quality consumer products at reasonable prices. They play a vital role in controlling the prices of commodities by adopting market intervention strategies. The Consumer Cooperative Stores at District and State levels purchase goods in bulk and supply them to the Primary Consumer Stores. The Federation also coordinates the bulk purchase of crackers during the festival season for sales through cooperative outlets of all types. In the last few years, Tamil Nadu Consumer Cooperative Federation has been encouraged to venture into new business. It has entered into a tie up with the Hindustan Unilever Limited and distributes the products of the Hindustan Unilever Limited throughout the state. It has also facilitated in implementation of Enterprise Resources Planning (ERP) Solution for all consumer wholesale stores from 2010-11 onwards. The Consumer Cooperative Stores operating through the institutional network as described below.

Chart No. 1

**Source: Policy Note On 2021-22 By Cooperation Department,
Government of Tamil Nadu.**

Performance of Consumer Cooperatives in Tamil Nadu:

In order to stabilize the price line and provide succor to the common man, the Government had taken a decision to strengthen the distributive network through consumer cooperatives in the country by introducing a Centrally Sponsored Scheme. The introduction of the Scheme had seen a growth in the total number of consumer cooperatives and development of their network in the country during the period 1965 to 1975. The Government of India among other things, decided to institutionalize the consumer cooperative sector by forming a National Cooperative Consumers Federation in Delhi with state funding, in association with a few state level consumer federations those existed at that time, with the main objective of coordinating the supply line of essential commodities especially the food grains and pulses by providing linkage between the production and consumption areas through the available infrastructure of state level consumer cooperative societies to be coordinated by the national federation viz, the National Consumers Cooperative Federation of India Ltd., registered in 1965. Thus came into being the present 4 tier infrastructure of the consumer cooperatives are consisting of the National apex body, State level Federations, District Cooperative Wholesale Stores and Primary Consumer Cooperative (Retail) Stores.

Consumer Cooperative Wholesale Stores procure groceries and the consumer goods in bulk directly from the production centers, manufacturers and marketing societies through the mechanism of Joint Purchase Committees in bulk and sell the same to the consumers at reasonable price. During the financial year 2020-21, the Cooperatives put together have sold controlled and Non-controlled commodities to the tune of Rs.2768.53 crores. During the current year Cooperatives have sold commodities to the tune of Rs.1014.77 crores as on 31.07.2021. During the financial year 2020-21, the District Consumer Cooperative Wholesale Stores have sold controlled commodities to the tune of Rs.611.88 crores and Non- Controlled commodities to the tune of Rs.1014.40 crores.

During the current year 2021-22, the District Consumer Cooperative Wholesale Stores have sold Controlled commodities to the tune of Rs.269.70 crores and Non-Controlled commodities to the tune of Rs.303.39 crores. During the year 2020-21, upto 31.03.2021 Primary Cooperative Stores have sold Controlled commodities worth Rs.109.97 crores and Non-controlled commodities worth Rs.277.96 crores. During the current year 2021-22 (upto 31.07.2021) Primary Cooperative Stores have sold Controlled commodities worth Rs.52.08 crores and Non-controlled commodities worth Rs.80.09 crores.

At present, in Tamil Nadu, 304 Cooperative Medical stores are functioning effectively with the main objective of supplying quality medicines at affordable price to the public. By selling medicines upto 20 percentage discount, Cooperative institutions help the poor and downtrodden people get medicine at reasonable prices. Upto 31.03.2021, medicines to the value of Rs.1124.53 crores have been sold through the 300 medical shops run by Cooperative Institutions. During the financial year 2021 – 22, medicines to the value of Rs.52.78 crores have been sold through 304 medical shops run by Cooperative institutions.(Source: Policy Note on Cooperation Department – 2021-22).

Cooperative Audit: An Overview :

A Cooperative Society is a business organization with a special mode of doing business, by pulling together all means of production cooperatively, elimination of middlemen and exploitation from outside forces. Even though, Cooperation is a voluntary movement of the public at large, there has been considerable state participation in the development of cooperative movement in the post-independence period. Apart from national planning the cooperatives are today, taking an active and constructive role in the implementation of developmental programmes and upliftment of the weaker sections of the community. A chartered accountant has to play a significant role in the development of cooperative organizations on scientific lines. The Government of India has brought 97th amendment to the constitution to promote voluntary formation, autonomous functioning, democratic control and professional management of cooperative societies. As per the amendment it is obligatory for all cooperative societies to get their accounts audited at least once in a year, before 1st of September following the close of the year by the Director of Cooperative Audit.

Cooperative audit is a close examination of financial transactions, maintenance of books of accounts, documents and other records of a business and includes an inquiry into the affairs of the society in order to ascertain the correctness of accounts and the extent to which its activities were useful in promoting the economic welfare of its members in accordance with cooperative principles. Cooperative audit is a more comprehensive enquiry than a mere financial audit. It is also an administrative audit.

The Department of Cooperative Audit is functioning under the administrative control of Finance Department, Government of Tamil Nadu with effect from 17.06.1981. Under Section 80 of the Tamil Nadu Cooperative Societies

Act, 1983 and as per Rules 101,102 and 103 of Tamil Nadu Cooperative Societies Rules, 1988, the Registrar (Audit) shall audit or cause to be audited by a person authorized by him by general or special order in writing in this behalf, the accounts of every registered society once at least in every cooperative year and communicate the result of the audit to the registered society concerned. (Source: The Tamil Nadu Cooperative Audit Manual).

- Ascertainment of actual financial conditions and earnings of the society.
- Detection and prevention of errors and frauds.
- Assessment of how for the society has been able to carry on business on sound Cooperative lines and the secure economic benefit to its members.

Features of Cooperative Audit Are:

- Examination of Overdue Debts, Overdue Interest and Certification Bad Debts
- Valuation of Assets and Liabilities
- Adherence to Cooperative Principles
- Observance of the Provisions of the Act, Rules and Bye-laws
- Verification of Members' Register and examination of their Pass Books
- Special Report to the Registrar, in case of serious impacted activities.
- Awarding Audit Classification to the Society
- Discussion of draft audit report with managing committee
- Furtherance of Public Welfare and Safeguarding of Public Funds

The importance of coop. audit can be gauged by the following points;

- The members of the society are to be satisfied that the affairs of the society are managed properly and on sound business principles.
- A large number of societies borrow funds from outside. The creditors would be keen satisfy themselves of the financial soundness and credit worthiness of the society. For this purpose they would depend upon the Cooperative Auditor's report.
- The interest of the deposit holders is very much protected by the regular audit.
- A large number of persons are employed by cooperatives for managing their affairs. In order to ensure that there is proper check on efficiency and integrity of employees, the management would require a systematic and thorough check of their accounts. This purpose is served by Cooperative Audit.
- Non-members who deposit their funds with the Cooperative Banks would like to satisfy themselves that their funds are safe with the bank. This is possible by the Cooperative Auditor's Report.

Objectives of the Study :

1. To understand the practices of cooperative audit in Consumer Cooperatives.
2. To ascertain the cooperative audit as a tool for assessment of Performance of the select Consumer Cooperative Wholesale Stores.
3. To understand the cooperative audit as a management tool for strengthening the Performance of Consumer Cooperatives in future.

Methodology :

Case study method is adopted for this study. The Dindigul District Consumer Cooperative Wholesale Stores (DDCCWS) was selected purposively. The period of the study covered was from 2015-16 to 2019 -20.

The Case :

Dindigul District Consumer Cooperative Wholesale Stores (DDCCWS) was registered on 04.03.1964 and started its functioning from 03.04.1964. The store is having 25258 members as individuals, cooperative institutions and Government with a paid up share capital of Rs.14.26 lakhs. The store has earned net profit during the study period. The store is having 91 branches in Dindigul District. There are 69 Full time Fair Price shops, 15 Part time Fair Price Shops, 2 Super Markets, 1 Self Service Section, 4 Petrol Bunks and 1 medical shop in Dindigul District.

The select store is running a super market as its units. The stores mainly deals with Purchase and Sales. There are two methods of branch accounts adopted by the wholesale stores. It is mandatory to every type of cooperative societies to go for auditing once in a year. Final audit is a statutory annual audit conducted in every registered society having moderate turnover after the closing of every financial year. As it is wholesale stores, having large volume of transactions Interim audit is conducted in one or two spells before the final audit for the year, depending upon the availability of time and the volume of transactions.

In case of the stores with having voluminous transactions, audit is conducted concurrently throughout the year. Every cooperative store is doing the final audit and test audit has been evolved for the purpose of testing the quality of audit done by the field auditors. Test audit is done by senior cadre auditors. The final audit is useful for measuring their operational efficiency and taking steps for strengthening their performance.

The general principles laid down for the audit of accounts, verification and valuation of assets and liabilities mentioned in the cooperative audit manual are applicable for the DDCCWS. The auditor should test check the purchase return and sales return register with credit notes and corresponding debit notes. Price fixation register is also checked by the auditor.

The work involved in audit consists of all the processes of audit, the routine check, administrative examination of transactions and books, verification of assets and liabilities, examination of overdue debts etc., The process of audit work followed are: i) Preparation for Audit, ii) Undertaking of Financial Audit, iii) Conducting Administrative Audit, iii) Valuation of Assets and Liabilities, iv) Preparation of Financial Statements, v) Compilation of Audit Report and schedule of defects, and vi) Audit Classification.

The store has entered all the business details namely, Purchase, Sales, Stock and Accounting, and auditing by manual only. The ERP (Enterprise Resource Planning) software is not fully adopted by the store. The store is making bulk purchase of consumer goods through JPC (Joint Purchase Committee). The store is having purchase book, Stock control form, Day book, Journal, General Ledger, Invoice control register, Stock register, and other registers etc. for the books of accounts. All the business transactions are being maintained in the form of various books and accounts. The stores preparing performance report and send it to RCS (Registrar of Cooperative Societies) by every month.

As it is a wholesale and retail stores, has to maintain sufficient funds to meet out the working capital requirements for the smooth functioning of the business. Effective financial management would help the organization to mobilize required funds and utilize the same scientifically for the sustainability of the store.

The inventory and sales management practices are carried out in three heads namely, Receipt of Goods, Stocking of Goods and Issue of Goods. When the goods ordered through JPC, it reaches to the central warehouse with the delivery note or invoice. All the invoices are entered in the invoice control register. Then the store will do the price fixation function. The profit margin varies from one item to another. After the price fixation the details are entered in stock control form. The store is maintaining stock register about all the items kept in the godown. The stock verification is carried out

at periodically. The controlled goods are supplied to PDS shops and non-controlled goods to wherever required.

The day to day sales occurred in PDS ration shops and sales made in self-service, petrol bunk and gas unit are entered in the respective registers. The stores enter stock, packers' payment, generation of bar code, stock transfer report product wise everything is made by manually. Normally the stores follow first in first out method of sales.

The final audit and the audit classifications of the store have analyzed in detailed manner. The following table depicts the audit marks obtained by them.

Table No.1

Assessment of the performance of DDCCWs through Cooperative Audit

Sl.No	Audit Particulars	Marks Obtained				
		2015-16	2016-17	2017-18	2018-19	2019-20
1	Purchase (20 Marks)	0	10	10	10	10
2	Sales (10 Marks)	10	10	10	10	10
3	Sales Turnover (20 Marks)	15	0	0	0	0
4	Stock Deficit (10 Marks)	0	0	0	0	0
5	Establishment Charges (10 Marks)	6	10	6	6	10
6	Contingencies (5 Marks)	0	0	0	0	4
7	Gross Profit (5 Marks)	2	2	2	2	2
8	Net Profit (10 Marks)	3	0	0	0	0
9	Stock Turnover (10 Marks)	3	5	5	5	5
10	Total (out of 100)	39	37	33	33	41
11	Audit Class	C	C	C	C	C

It is understood from the above table that the store has been classified as "C" in all through this study period. 'C' class indicates that they need to improve a lot. Moreover, the stores secured 39 marks in 2015-16 has decreased to 33 in 2018-19 and it has increased to 41 in 2019-20.

Depending upon the aggregate marks scored by the above, consumer cooperative audit classification has to be made on the following basis. If a cooperative scores 60 and above marks, it is placed under 'A' Class - a good society. 'B' class societies are found scoring 45 marks to 59 marks - performance wise mediacure type. 'C' class societies are poor category. 'D'

class societies are dormant category, unless it has to improve itself to ‘C’ class, it may be stopped its functioning.

Table No.2: Audit Classification

Marks Secured	Audit Class
60% and above	A
45% and above but below 60%	B
30% and above but below 45%	C
Below 30%	D

Tool for Assessment of Performance:

Auditing as a control tool of management review the performance of the stores and management system and suggest for improving the efficiency or effectiveness of the organization. Administrative auditing is a critical review of the soundness and propriety of the decisions taken in the past and helps management to correct mistakes and improve methods.

The financial statement is practically prepared for internal users (Cooperative Members) and for external users (Cooperative Department). Cooperative Audit reveals the real picture of financial performance of the cooperative stores.

Assessment of performance mostly remains to its financial dimensions and focus on the financial stability. With regard to the purpose of consumer cooperatives, to improve the performance of consumer cooperatives and make it stable for long-term survival. There are some financial and non-financial indicators influencing the performance of consumer cooperatives. Financial ratio is one of the financial indications of evaluating the performance of consumer cooperatives. Particularly, Assessing the financial health and potential insolvency of the cooperative stores. Cooperative Audit examines accounting for a consistency and relatively stable for a long-term.

The consumer cooperative stores can ascertain the Return on Investment, Financial Leverage, Cost of Capital, Profitability, Cash position, Inventory Turnover and Receivables Turnover through the audit. The non – financial indication of assessing the performance of consumer cooperatives are employees profile, level of consumers retention, Customers satisfaction and members benefit.

Financial statements which give information of cooperative business operation and governing. Based on the assessment, the consumer cooperatives will be able to strengthen the organization and render enhanced services to their members; like providing quality consumer goods with further lowering (active price – lesser than market price) and retaining more number of consumers.

Strengthening of consumer coop stores through Cooperative Audit :

- Cooperative Audit helps the Store to correct their mistakes in the books of accounts and it helps to have true and fair view of the financial statements as well as the organization.
- As the cooperative store has adopted ERP solution in all the business activities, It has updated all the accounts of the business trading, Business, Financial and Administrative which facilitates the speedy audit.
- The audit helps the management to take decisions.
- The stores can ascertain the purchase performance of every day with the help of ERP based software.
- The Consumer cooperatives can identify the deviation in the purchase and sales performance with the help of ERP and the audit report.
- Further, the consumer cooperatives can analyze the inventory levels and maintain the minimum level of stocks in the stores. Based on the performance it will take necessary steps for further development.
- Finally, the consumer cooperatives can determine the overall financial performance and take necessary actions regarding the financial issues.

Conclusion:

Cooperative Audit helps greatly to perform the activities in line with the well set cooperative principles, values, Act and Rules. Moreover, through Audit, it is brought to the light all kinds of errors, mistakes, embezzlement, frauds and various other unfair means and it meticulously guides those unfair means will not reoccur in the business. It clearly indicates where the cooperative society presently stood at and it also gives lights, where the same society wants to go. The grey areas indicated by the Audit report, if any, is a chance for rectifying themselves and also for the growth of the society concerned. The sample society has been under ‘C’ class for the period under review; it has to take effective steps very seriously to enhance its performance position by scoring higher marks in the areas namely, stock turnover, stock deficit and net profit.

CBS for Strengthening Cooperative Banking (A Case Study of Pune District Central Cooperative Bank Ltd., Pune)

Ms. Ashwini R. Chavan*, Dr. R. D. Kumbhar**

Abstract:

At the moment, technology acceptance and expansion in the banking sector is a continual process on a global scale. For the banking industry, a core banking solution is a blessing. Unlike any other industry, banking has numerous challenges in this competitive era of globalization. CBS implementations, according to numerous reports and literature, boost efficiency by lowering staff workload, improving accuracy and speed, and saving time, money, and effort for employees and consumers. CBS is an example of a recent discovery in banking that has shown to be extremely beneficial. The core banking solution employs a centralized branch computerization paradigm, in which branches are linked to a centralized host that holds a branch automation module as well as a variety of online delivery channels like as ATM, Internet Banking (only view), RTGS, NEFT, credit and debit cards, and telephone banking. Despite the fact that public and private sector banks already had acknowledged the IT industry's influence in the banking sector, it continues to develop on a regular schedule. Whereas still many cooperative banks are in the adoption phase. In this paper, with the help of a case study of Pune District Central Cooperative (PDCC) Bank, Pune, author has specified the technology adopted by the PDCC. The paper also discusses about the impact of CBS on PDCC bank customers, issues faced by the bank regarding the current technology and suggested changes for the cooperative banks. Primary data from personal interviews with bank clients was used to conduct the analysis. In order to get at authenticated information on the Core Banking Services, the analysis and interpretation will be done using appropriate statistical methods and procedures.

*Research Scholar, RIRD, Shivaji University, Kolhapur, Asst. Professor at Sinhgad Institute of Management and Computer Application, Narhe, Pune **Hon. Professor, Rayat Institute of Research and Development, Satara

Keywords:

Core banking, CBS, ATM, Delivery channels, Cooperative banks, PDCC bank.

Introduction:

The banking industry at global level is under the phase of adoption of latest technology. The banking sector in India is no exception. The Indian financial sector is undergoing a transformation as well, and it is implementing technological developments vigorously. Customers' awareness of banks' offered services and ever-increasing needs are fast changing the banking business, resulting in a complicated and competitive market in the twenty-first century.

There are 3 different types of financial institutions in India: scheduled, non-scheduled, and specialized. The target market and customers were used to develop these groups. While functioning in India, each organization has its own operations, profits, as well as limits. Some banks only serve rural customers, while others serve both rural as well as urban customers. A few types of banks operate exclusively in India's cities. The majority of the banks are Indian; however, a few foreign banks have made investments in the Indian market as well. The Reserve Bank of India (RBI) has always been eager to involve more international banks in India, which has resulted in more foreign banks investing in the country. [1]

The following are the two types of non-scheduled cooperative banks:

- Urban Cooperative banks
- Rural Cooperative banks

These banks are forbidden from dealing in foreign exchange. Local Area Bank is another name for non-scheduled banks. Almost every state of India has its cooperative banks, which have their branches state or district or city wise.

Objectives:

- To know present status of CBS Implementation in PDCC Bank.
- To identify issues in CBS implementation.
- To suggest remedial measures to overcome identified issues.

Research Methodology:

For present study data regarding CBS implementation and implementation issues has been collected from the technical staff of the bank. Bank profile and other information related to CBS concepts are collected from the books, previous research articles, bank website and annual reports of the bank. Researchers used structured schedule for data collection from IT department staff.

Pune District Central Co-operative Bank:

The Pune District Central Co-operative Bank was established on September 4, 1917. The bank's service region encompasses the whole Pune District. Despite tough competition from nationalized and urban cooperative banks with a vast network in the district, the PDCC bank has retained its market share in the district and at the industry level too. The bank has been providing outstanding services to its customers for the past 104 years. The District Central Co-op. Bank, as a Central Financing Agency in the district, is the platform on which the district's co-operative societies maintain their reserve fund deposits and other deposits, in addition to the SLR investments in the form of deposits held by the urban co-op. banks with the DCC banks. The DCC is the main commodity of the co-operative institutions in the district in a variety of ways. For urban co-operative banks, the DCC banks provide the clearing sub-members facility, and the DCC banks also provide loans to various on lending co-operative organizations. The DCC banks are the backbone of the country's agriculture economy. In the co-operative credit structure, the Central Co-operative Banks plays a critical role. They serve as a vital link between the central co-operative bank and the primary agriculture credit organizations. The financial soundness of the cooperative credit movement is critical to its success.

The Bank's major goals are to serve as a balancing centre of finance for the district's primary societies, giving cash when they are in short supply and acting as a clearing house for their surplus funds. Another significant goal is to supply funds to linked organizations as well as conduct banking operations. Also, to provide a secure location for primary societies' reserves to be invested, as well as to serve customers with the most up-to-date financial services. The PDCC bank aspires to help the district's cooperative movement grow along sound lines by serving as a partner philosopher and guide. In addition, to build and expand banking facilities in rural and urban areas, as well as to supervise, guide, and control member societies' operations.

Literature Review:

For the study researcher has gone through various research articles, PhD thesis, annual reports of banks, RBI Circulars and reports related to banking domain. Based on the literature reviewed researcher has noted the following challenges that cooperative banks have encountered when implementing CBS.

- If many features/solutions need to be updated, IT deployment costs for cooperative banks are higher.
- Most of the time, non-technical persons are involved in technology selection, leading to the wrong selection of technology for the cooperative banks.
- Most of the cooperative banks do not have the required qualified professionals due to which wrong selection of technology, resulting in the necessity to change the technology frequently.
- Most of the time, untrained employees find it challenging to adapt and deploy new technology.
- For cooperative banks, having in-house technocrats and have their own data centers are expensive.
- In most cases, the vendor's inability to meet bank standards for product delivery.
- Most cooperative banks are not able to identify between what they want and what they must have.
- For the past few years, cooperative banks in India have attempted to embrace CBS in order to perform better banking functionalities, but they've not fully implemented it. As a result, it is critical to understand why CBS has not been implemented in cooperative banks. [6]

Problem Statement :

In light of the above discussion, it is necessary to examine and provide a solution to the above-stated challenges of cooperative banks. Here considering the the researcher intends to carry out a case study with respect to Pune District Central Cooperative Bank only, so the paper is entitled as “**CBS Implementation: A Case Study of Pune District Central Cooperative Bank Ltd., Pune**”.

Status of CBS Implementation at PDCC Bank:

To understand the present status of PDCC bank, authors have collected the data through a structured questionnaire and personal interviews. Pune District Central Co-operative Bank is providing Anywhere Branch Banking (ABB)

facility through its 294 branches across the Pune District. For achieving accuracy in work and maintaining update record and keeping constant speed in work, the bank has undertaken Core Banking System (CBS) in the year 2010 and for the same a separate IT department is established at the Head office level. Recently PDCC bank has adopted Trustbank's CBS software. For the same Data Center is established at the head office (HO) of the bank at Pune. Considering the RBI's guidelines, DC and DR should be at different seismic zone, a separate core banking machinery in case of disaster management (DR) has also been set up at Amravati. Windows operating system is being used at all over the branches of PDCC bank. Along with the traditional delivery channels like cash withdrawal, cheque book facility, NEFT, RTGS, ATM kiosk etc. PDCC offers advanced mode delivery channels like Mobile banking and internet banking (only View), Mobile messages (Updates), IMPS, specially for the rural area Mobile ATM vans facility is also been offered.

PDCC bank has implemented all CBS modules at head office level, mainly Account and General ledger, Branch consolidation Inter branch/ Interbank, Inter branch/ Interbank Transaction Reconciliation, Transaction Reconciliation, Shares etc. At branch level too modules like Account opening and general ledger, Deposits, Advances, Remittances, Bills, Cash management, Safe deposit/ Safe custody facility, NPA, Delivery channels, TDS Calculations, Online transfer for salary and other type of payments from eternal organization, Loan processing etc are adopted.

The bank's technical profile is excellent. There are 294 branches of PDCC Bank. The PDCC Bank has its own data centre at its headquarters. Considering the RBI's guidelines to build the DR site at different seismic zone, data recovery site is at Amravati. Through a 64 kbps BSNL Lease line, all branches are conceptually connected to the PDCC Data Center (DC) and Data Recovery (DR). Through a 64 Kbps BSNL Lease Line, 280,232 branches are connected to the nearest Nodal offices. The remaining 48 branches use 64 Kbps lease lines to link directly to the Pune DC.

The nodal offices are connected to the DC and DRC individually through a 2mbps BSNL lease line. A total of 120 branches have 128 Kbps Reliance MPLS access in addition to the lease line. In the event that the primary link fails, 200 branches have IDEA MPLS connectivity through 3G/4G last mile using Dongles that are directly connected to the connection server (PC) to access CBS and other apps. Hughes provides 1 mbps pooled VSAT access to 30 outlying branches. The DC and DRC are connected by two independent 2 Mbps BSNL lease lines. To ensure maximum uptime, lease lines channels are

routed over two distinct paths. The DC is connected to the internet via fiber by BSNL at a speed of 20 megabits per second. For CTS and NACH activities, the DC and DR have dedicated broadband internet connectivity from BSNL. Reliance and IDEA's MPLS lines are only terminated in DC via a single RF last mile. The Hughes backhaul is terminated over the internet through an IPSEC tunnel at Pune DC. Euronet is in charge of monitoring and maintaining the links. [8]

Issues In CBS Implementation:

Researcher has collected the data from the various 20 technical employees of the different branches of the bank. To identify the various issues faced by the employees while implementing the CBS in PDCC bank, author has enlisted few issues. Following table gives the clear idea about the various issues faced by the employees.

Table No. 1: Technical issues faced by employees

Sr. No.	Technical Issues	Very frequently (5)	Frequently (4)	Moderate (3)	Rarely (2)	Very Rarely (1)	Wtd. Avg.	Rank
1	Hardware related issues	4	2	5	5	4	11.4	5
2	Software related issues	6	4	4	3	3	13.4	4
3	Vendor Support	2	5	4	4	5	11	6
4	Security related issues	6	6	2	4	5	14.6	3
5	Network Connectivity related issues	8	6	2	2	2	15.2	1
6	Delivery Channel related issues	7	6	4	1	2	15	2
7	Dependency on vendor application	4	2	2	4	8	10	7
8	Timely availability of adequate skilled resources and infrastructure	4	2	2	3	9	9.8	8

(Source: Primary Data)

The above table represents the various technical issues faced by sample cooperative bank respondents. Based on the primary data, the researcher has calculated weighted average and then ranked the issues based on the issues faced by the sample cooperative banks. From the table, we can see the ranking, where network connectivity related issues (15.2) is on highest rank, then Delivery channel related issues (15.00), security-related issues (14.6), Software related issues (13.4), hardware related issues (11.4), then Vendor Support (11) Dependency on vendor application (10) and Timely availability of adequate skilled resources and infrastructure are (9.8).

From the above table, it is clear that respondents from sample banks are most often facing Network Connectivity-related issues, Delivery channel related issues, Security-related, software related issues. We can see that 40-50 % of respondents find these issues most often. Then another problematic issue for the respondent is Hardware-related issues, Vendor support related issues, Dependency on vendor application, and Timely availability of adequate skilled resources and infrastructure, respectively.

To understand the above ranking, we must have to understand that PDCC bank is having head office located at Pune city and rest 293 branches all over Pune district. Many branches located in rural areas too, and the employees working for many years are not technosavy. So they are facing technical issues in the majority. From the above ranking, we can understand, the bank employees are facing Network Connectivity related issues to use the CBS.

Therefore, it has been concluded that 30 to 40 percent of issues frequently occur in all technical aspects. However, network connectivity, security, delivery channel and software-related issues have a high frequency.

Findings of Study:

- The study reveals that, PDCC bank has adopted and implemented CBS with delivery channels. (ATM,NEFT,RTGS,CTS,IMPS etc)
- From secondary data it reveals that PDCC bank is using BSNL leased line, MPLS facility. The bank is using the facility in combination i.e. more than one connectivity medium has been used.
- Windows operating systems and SQL server database is used.
- It is observed that network connectivity related issues is on highest rank, then Delivery channel related issues, security-related issues, Software related issues , hardware related issues, then Vendor Support Dependency and lack of timely availability of adequate skilled resources and infrastructure issues are found.

- PDCC bank is having own data center at HO Pune and disaster recovery site is at Amravati.
- Along with traditional delivery channels bank has partially adopted latest delivery channel method like internet and mobile banking (only view) etc.

Suggestions:

- Bank should provide hardware or software troubleshooting training to staff so the bank employees can easily handle or solve the issues, resulting in saving time and cost.
- As licenses of system software like windows are expensive, so it is suggested that bank should adopt open source technologies like Linux, android which are cost-effective for the bank.
- PDCC bank is having its own DC and DR sites, having own data center is always a secure but expensive option. To reduce heavy expenses on DC & DR bank may think on cloud application for same.
- Due to its user-friendly and time-saving qualities, online banking is more popular than offline banking. Also the bank is already offering internet banking (only view). Hence it is suggested to implement internet banking in full-fledged mode.
- Also it has been suggested that the PDCC bank should offer mobile application to their customers. By using the mobile app. bank can also attract more young generation customers.
- Currently, PDCC bank use's connectivity mediums as leased lines, MPLS, which are costly, hence to reduce the cost, author would like to suggest go for IPSec VPN solution.

Conclusion:

The study concludes that a number of direct and indirect factors influenced the implementation of Core Banking Solutions in PDCC bank. The data analysis reveals mainly the number of technical factors that influence adoption of CBS. Despite the fact that PDCC bank has implemented the CBS, CBS is not being used to its full potential due to technical expertise of the CBS implementation. The technical challenges that bank encounter specially in rural area are similar in nature, but the severity varies. Top-level management involvement would have a significant impact on CBS adoption and implementation in PDCC bank. Bank may expand horizontally and vertically in order to meet all of their customers' needs if they adopt latest technologies like mobile app, UPI etc. Also banks must go for Cloud

computing technology for the data storage as well as must adopt VPN like technologies to solve the connectivity issues. In this scenario, banks must rethink their operational strategies in terms of technology implementation. The technological solution must be user-friendly for customers as well as for the employees and operate without the need for much third-party or IT vendor intervention or support. It is evident that as compare to other cooperative banks PDCC bank having much aware about the technological adoption but still not implemented the latest technologies. So it is suggested to adopt the latest technologies for cost and time saving.

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Managerial Practices and Marketing Strategies Embraced by the Co-operative Banks in Goa

Namita Haldankar*,

Abstract :

Nowadays in a very large number, the co-operative sector has been flourishing in different parts of the country. According to the International Co-operative Alliance (ICA), “a co-operative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspiration through a jointly owned and democratically controlled enterprise”.

For the purposes the essential features of co-operatives are given by enterprises that have two characteristics: 1) Ownership is not determined solely by investment in shares, but by another transaction relationship with the enterprise; 2) Voting rights are not determined in relation to capital ownership but are divided equally among members.

The cooperative movement in the world differs from one country to another. In Indian economy, the co-operative banks play an important role. In Co-operative banks deposits are accepted and loans are provided to the needy people. The concept of voluntary membership is an element of cooperative which is defined by ICA wherein no one is forced to join as a member of the co-operative. If a member wants, he/she has the freedom to quit or continue the membership. One member one vote is the voting right followed by the co-operatives. As compared to urban areas, the co-operative banks have greater presence in rural areas because most of the co-operative banks are used by farmers and people belonging to low income strata to take loans for agricultural and other allied activities. Whereas in urban areas they serve to small industries and self-employed workers. Co-operative banks are registered under the Co-operative Societies Act 1912 and are regulated

*Student, Post Graduate Department of Commerce
Government College of Arts, Science & Commerce, Khandola- Marcela, Goa

by RBI under the Banking Regulation Act 1949 and Banking Laws Act which are applicable to co-operative societies.

The core objective of this study is to examine the managerial practices and marketing strategies adopted by the co-operative banks in Goa. The management practices are very important because all the powers and responsibilities of the bank is with the management committee, all the decisions of all the activities done in co-operative bank are taken by management committee. Whereas, the marketing strategies refers to the plan of action designed to promote and sell a product or service. To have a good consumer base, promoting the products and services of the co-operative bank is essential. The customers will not be able to know the activities and the performance of a bank if it is not marketed well.

The data for the purpose of this study will be collected by interviewing bank officials and employees of a co-operative bank through an unstructured questionnaire. The findings of the study will highlight the managerial practices and marketing strategies adopted by a particular co-operative bank. The study will discuss the ways which can be adopted by the selected bank to improve upon its management practices and marketing strategies. The findings of the study are the bank is focusing on farming or agricultural sector within the state of Goa. The management committee is also keeping all the records of the performances of the bank that is from the bank's accounts of the members till the facilities are given to the farmers. The bank is providing loans, schemes, insurances to the farmers within the state of Goa. The bank is also organizing workshops, camps for the bank's staff or farmers to increase their knowledge in their field.

Keywords:

Banking, Co-operatives, Managerial practices, Marketing strategies

1. Introduction :

Co-operatives :

Nowadays in a very large number, the co-operative sector has been flourishing in different parts of the country (Rathod, 1980). According to the International Co-operative Alliance (ICA), a co-operative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a journey owned and

democratically controlled by the enterprise.

Voluntary membership is an element of co-operatives and is defined by ICA. Here no one is forced to join as a member of a co-operative. If they want, they have a freedom to quit or can continue the membership. One member one vote is the voting system followed by the co-operatives. Co-operative is controlled by the Board of Director elected by the members of the co-operative.

Banks :

A Bank is a financial institution that accept the deposits and provide loans to the public. Bank is controlled by RBI (Reserve Bank of India). Bank provide all types of financial services to the needy people.

The Indian Banking sector has been remarkably successful in Indian Economy. In India now a days banking has become one of the trusted institution where many numbers of people deposit their money in any urban or rural Bank or schedule and non-schedule banks. If someone is in need then he can apply for loan that might be for home loan, car loan, jewellery loan etc. (Banerjee, Cole, Dulfo, 2003).

Co-operative Bank :

In the houses the savings were sit idle, the entrepreneurs were not in position to raise the funds, the ordinary people were dreaming to purchase car, houses etc. but they were not able to buy that all things. So the government of India started the co-operative movement of India in 1904. Then the government started looking into the problems faced by the people and helped them in solving their problems. While solving their problems, starting they were also facing difficulties but later after some time, they were solving it easily. In this type of situation, the co-operative banks started operating as a balancing centre. (Banerjee, Cole, Dulfo, 2003).

Growth of Co-operative Banks:

In 1904 the government of India started the co-operative movement of India to develop the co-operatives as the institutional agency to overcome the financial problems of urban and rural areas. It operates as a balancing figure (Gupta, Jain 2012).

At present, there are many types of co-operative banks which are performing different types of functions such as financial, administrative, supervisory,

development in nature of expansion

and development of co-operative credit system. The co-operative banks have to act as a friend, philosopher and guide with their members Gupta, Jain (2012).

The Goa State Co-operative Bank Limited :

The Goa State Co-operative Bank Limited is located at “SAHAKAR SANKUL” Head office, EDC Complex, Patto, Panaji – Goa. It is a Schedule bank on 15th December 1994. The regional offices are in Daman and Diu. The bank is having a total of 55 branches in Goa, in Daman, there are 5 and in Diu, there are 4 branches. These co-operative banks are owned and managed by the state.

This bank is an Apex bank of Goa state. The bank quoted that “Management of Resources through Co-operative and dedication can make **Atmanirbhar Bharat**”. The bank is not having net banking facilities and mobile banking facilities for their members because their CRAR has not been set up properly. But the bank is having ATM facilities next to the bank. The mission of the Goa state co-operative bank limited is to provide mobile banking and ATM facility services in remote villages.

The bank is giving financial support to their members of the co-operative bank in Goa. They are providing loans and advances to the co-operative members. The loans may be in the short term, medium-term and long term. The loans the bank is providing are agricultural and non - agricultural loans, URBAN, Gold etc.

The bank believes in providing the best in class banking products and services accessible to all sections of society as a responsible leader in the financial sector. The bank is taking care and all possible steps to improve the CRAR as per regulatory norms. There has been improvement in the CRAR as compared to previous years.

The bank undertakes workshops for societies and self-help groups. The financial literacy cell of the bank has conducted 115 camps to educate their customers in various fields of banking in Goa which was sponsored under NABARD and that was the highest number of camps conducted by any bank in Goa during the year.

2. Literature Review:

Haralayya, Aithal (2021), in their study they studied on structure and growth of the banking industry in India. Since this data is conceptual in nature and secondary source of data is used, type of sample, sample size and techniques are not used. The objective of the study is the financial development and the productive working of managing an account division in India. The finding of this study is after the initial reforms the mixed result has been provided by RBI and the government of India and with an expectation to the last few years, the banking sector is growing well in India. Riyas, Ramy (2018), in this study investigated as a study on marketing strategic techniques used by the Kozhikode district co-operative bank (KDCB) in Kerala state, India. The study is based on both primary and secondary data sources with the help of interviews and content analysis and it was empirical. The objectives of the study are to know the Banking in Kozhikode District, examine about branding strategy evaluate the Last Six years Major Strategic Decisions of the Kozhikode District, and analyse the current situation of KDCB. This research work conducts theoretical reviews of the Banking operations in KDC.

Singhal, Chauhan (2021), in their study researcher has focused on the analytical study on PMC (Punjab & Maharashtra Co-operative Bank) by considering the financial failure of a bank. The study is completely based on secondary data. The objective of the study is a case on the monetary failure of Punjab & Maharashtra Co-operative Bank specialised in what factors has been liable for failure and also the risk involved and the actions taken against the frauds. Abbaset al. (2018), there study they examine why remodelling of risk management Practices in banking is required? Evidence from Pakistan. The study is a convenient sampling technique. The selected questionnaire method and primary source of data were adopted. The sample size was 5 Islamic banks which were non-conventional, bid 5 conventional banks of Pakistan for comparison, the 58 total respondents from Lohare city from that 46 were conventional and 12 were from an Islamic bank. The finding of the study was the identification of risk and credit risk analysis have a strong significant and positive relationship with risk management practices and to respond to the challenges with IOR and CRA it is important to enhance RMP to align the remodelling of the framework as a need of time.

María et al. (2014), the researcher study in their research the sustainability in European Co- operative Banks: An exploratory analysis. The source of data collection was completely on secondary data. The findings study was a report from 2000 to 2013 was published by the 170 European financial

entities. The sustainability reporting was across Spain, Netherland and Switzerland from many years. 98.38 % belongs to bank and 8.62 % to co-operative banks. Mala, John (2014), in their study they analysed the Commercial Banking and Marketing of Banking Services. The study is completely based on secondary source of data. The objectives and finding of the study was to understand the overall financial service industry, the origin of banking, the classification of banks, the evolution of bank marketing, marketing approach to banking, market segmentation, bank marketing of the Commercial Banking and Marketing of Banking Service. Bhat, Bhatt (2013), in their study they investigated on Financial Performance and Efficiency of Cooperative Banks in Jammu & Kashmir (India). The study is done through primary source of data collection, where, they investigated in 6-7 banks in Jammu and Kashmir. It is a case study. The objective of the study is by investigating the technical efficiency, to contribute to the cooperative banking efficiency literature operating in Jammu and Kashmir (J&K). The findings of the study is when their efficiency is measured in terms of variable returns to scale, five banks are relatively efficient and when their efficiency is measured in terms of constant returns to scale, three banks are relatively efficient.

Bülbül et.al (2013), in their study they identified a Savings Banks and Cooperative Banks in Europe. In this study data is secondary source of data and conceptual in nature The objective of the study is the most important changes, characterizes the former and the current role of savings banks and co- operative banks in Germany, Austria, France, Italy and Spain. The finding of this study is the difference between national regional bank systems has been shown up and in recent year, the savings and co-operative banks have become different. Jain, Soni (2013), in their study they analysed Distinctive Marketing Challenges of Banking Services: Indian Perspective. Sawant (2012), in his study he investigated A Study on Marketing Mix in the Rayat Sevak Cooperative Bank Ltd. Satara, Maharashtra. A study is based on both primary and secondary source of data. Survey was conducted with structured questionnaire to the management staff and sample size was 5 financial years of RSC bank and random convenience sampling was adopted. The finding of this study was the RSC bank has drafted various slips, forms, loan deeds, agreements and documents in Marathi and also in English language then there is no provision in cooperative Act in relation to the representation of the depositors on the 'Board', the bank also encourages the employees to do trainings from external agencies because the bank doesn't have its own training centre etc.

Caldarelli et al. (2012), in their study they assessed an ethics in risk management practices: insights from the Italian Mutual Credit Co-operative Banks. The study was based on secondary source of data. The findings of the study shows the evidence of effectiveness of the risk management practices within the banking sector. All the ethical restrictions are necessary to reconcile the entities interest with the society and are not detrimental for the purposes of the entity. Gupta, Jain (2012), in their study they analysed a study on Cooperative Banks in India with special reference to Lending Practices. The study is based on both primary and secondary data collected through interview and questionnaire with 200 respondent. The type of study is empirical. the finding of this study is only 32% people were having housing loan from this bank and 64% people refer to take long term loan for more than 3 years. They follow a very simple procedure, easy repayment and less formalities are there in this bank for selection of loans and customers are also very satisfied with this mode. Jadhav et.al (2012), in their study analysed Customer Relationship Management: The Enlightening Approach and Attitude of Co- operative Banks in Nashik District. The sample size was 100, data collected was both primary and secondary through interview, questionnaire, and by referring some books. The objectives of the study was to study the expectation and identification of satisfaction of customer satisfaction level. The findings of the study was as per rule and regulations of Reserve Bank of India Customer services are not standardized because no proper hospitality maintained to common customers, Infrastructure filled very poor, employees attitude found not sustainable of co-operative bank.

Majumder (2012), in his study he identified the Human Resource Management Practices and Employees' Satisfaction towards Private Banking Sector in Bangladesh. The data collection is from both primary and secondary data through questionnaire and interview of sample size of 20 private banks, 88 bank employees. The objective and finding of the study were the relationship between the employees' satisfaction and the various dimensions of HRM practices in banks. Battilani, Zamagni (2010), in their study they analysed the Managerial Transformation of Italian Co-operative Enterprises. The source of data is secondary and primary. The study was conducted through interview and some historical data collection. The objectives and findings of the study are they had build three generation model of co-ops managers that shows the changes that allow co-operatives to become fully equipped with managerial skills. Smt. Padmini, E.V.K. (1997), in their study they studied funds management of district co-

operative banks in Kerala. The primary and secondary data was used that is from the annual report. Six banks were selected as a sample size. The objectives of the study were to examine the trend and pattern of sources and uses of funds, to analyse the efficiency in funds management by DCBs and the management practices.

3. Research Gap :

As per the above literature review, a limited study has been done on The Goa State Co- operative Bank Limited for the past many years. The objectives of the study is a case study on management practices and marketing strategies towards Co-operative Bank in Goa. The literature shows what are the advantages and limitations of the banks. The study further says how they target the market and what would be the steps they will take to develop and achieve the goals of the bank. Further also tells about what are the management practices they are doing.

4. Research Problem :

The study on The Goa State Co-operative Bank Limited analysed that the management committee is maintaining all the records from BOD to staff disciplinary committee. All the committees are keeping track of every department's functions. The Co-operative Bank is targeting only farming or agriculturist. The bank provides loans and schemes to the framers on long term, medium-term and short-term basis. The mission of the bank is to provide ATM van facilities in rural villages. The bank also organizes workshops, camps for the staff as well as for the farmers.

5. Research Questions:

- i. What would be the management practices performed by the co-operative banks in Goa?
- ii. What would be the marketing strategies of the co-operative bank in Goa?

6. Objectives of the Study :

- i. To study about the management practices of the co-operative bank in Goa.
- ii. To study about the marketing strategies of the co-operative bank in Goa.

7. Research Methodology:

In the study it included that universe area is taken as a Goa and the place of

the study is the Goa State Co-operative Bank Limited, Patto, Panaji, Goa. The period of study is November 2021. The respondents are two General Managers of that bank. The sources of data collection are both primary and secondary. Through interviewing the two General Managers and by referring annual reports of past 5 years the data been collected.

8. Discussion :

Management Practices

The management plays a very important role in every sector of a business. It is a decision-making committee. The following are some management committees of the Goa State Co- operative Bank Limited.

▪ The Board of Management-

The board of management is responsible for all the matters stated in the Goa State Co- operative Bank Limited. The responsibility includes preparation of the financial statements which gives a true and fair view of the financial position, financial performances of the Bank in accordance with the accounting principles which are generally accepted in India including the accounting standards issued by the Institute of Chartered Accountants of India.

▪ The Asset and Liability Committee (ALCO)-

The bank is exposed to credit and market risks in view of assets and liability transformation in a normal course. The bank is operating in a fairly deregulated environment. It is required to determine interest rates on various products. For intense competition of business, involves both assets and liabilities.

▪ Business Support Committee (BUSCO)-

The committee handles all the activities related to the business support. The bank helps the small scale, cottage industry, Self Help Group, etc. by providing loans to them. To achieve their goals the bank provides them short term, medium term loans to their customers.

▪ The Expenditure Management Committee-

The expenditure management committee is a committee where all the transactions related to expenditure involved. It includes expenditure of monthly, quarterly and yearly. This management committee an important part of every banking services. It gives us track of all the expenses which includes public finance, staff expenses, etc. during the year.

▪ **The Staff Disciplinary Committee-**

This committee looks after all the department of the bank. This committee try to maintain all the sets of rules and laws of the bank. They see if staff is properly talking with the customers or not, they properly explain all the schemes to their customers or not, they see if the staff of the bank is properly maintaining all the documents, notes or not.

❖ **Marketing Strategies :**

Marketing strategies used by Co-operative Banks are aimed at creating new marketing and maintaining the exiting market. The following are some points about the marketing strategies of the Goa State Co-operative Bank Limited:-

- The marketing department structure of the bank includes HR Department, which is looking after all the duties allocated to the different departments of the bank to achieve the goal of the bank.
- The main target or target area of the Bank is to provide finance assistance to the Farmers or Agriculturist within the state of Goa.
- Through different branches they provide different types of facilities to their members/customers like different schemes, insurance policies available for them.
- Through different branches, they organize workshops, camps for their members to increase their knowledge in the field of banking services and also for the customers in their farming or agricultural sectors in the state of Goa.

Financial Assistance to Farmers / Agriculturist:

In 2013, the Goa State Co-operative Bank Limited has completed 50 years in Banking services. The bank is focusing more on the farming and agricultural sector. The bank assists in economic growth and personal economic growth in the state of Goa through co-operation by Agro, Micro and Macro-Finance. The bank launches products and schemes to attract customers on the auspicious Golden Jubilee Anniversary of the bank. The bank provides financial assistance in the form of short, medium and long term. The objective of the bank was to provide farmers adequate finance on time for their farming needs. The bank provides financial assistance through schemes to some farmers/agriculturists which are as follows:-

Kissan Credit Card Scheme:

Table No.1: Showing Amounts of Loans Disbursed

Particulars	2014-2015	2016-2017	2019-2020
Loans Disbursed	556.87 lakhs	224.76 lakhs	1189.23 lakhs
No. of farmers	491 units	164 units	652 units

Source: Compiled from various annual reports of the Goa State Co-operative Bank.

The Bank provides financial assistance to the farmers through (KCC) Kissan Credit Card Scheme. The main objective of this scheme is to provide adequate, need based and timely credit support to the farmers for cultivation of crops like sugarcane, groundnut, paddy, etc. Further to meet short term credit requirements for cultivation, post-harvest expenses, etc. All the farmers who are owner, cultivators, tenant farmers, SHG's joint liability groups, etc. are eligible. From the table no. 01, it can be observed that the loans sectioned was 556.87 lakhs and the number of members were 491 in the year 2014-15. Whereas, in the year 2016-17 loans disbursed was 224.76 lakhs with 164 numbers of farmers, which shows that there was a decrease in the amount as well as in numbers of farmers. But in the year 2019-20, loans disbursed 1189.23 lakhs and number of farmers were 652. This shows, there has been increase in both sides, because farmers found it was very beneficial and therefore, the loans sectioned and the number of farmers started rising in the year 2019-20 as compared to earlier years.

Farm Mechanization :

Table No. 2: Showing Amount of Loans Disbursed

Particulars	2014-2015	2016-2017	2019-2020
Loans Disbursed	12.75 lakhs	10.25 lakhs	40.49 lakhs
No. of farmers	15 units	12 units	34 units

Source: Compiled from various annual reports of the Goa State Co-operative Bank.

The bank provides financial assistance for farm mechanization to the farmers. The main objective is to improve in efficiency in the operations of farm. The farmer will get assist for adapting improved/scientific agronomic practices by providing finance through need based credit support for buying farm machineries and equipments. From the table no. 02, it can be observed that the loans sectioned to the farmers was 12.75 lakhs and the number of farmers were 15 during the initial period of the scheme that was in the year 2014-15. But there was decreased in number of farmers and loans disbursed

in the year 2016-17, that was 12 and 10.25 lakhs. Whereas, in the year 2019-20, there was a sudden increase in both sides that was loans disbursed was 40.49 lakhs and number of farmers were 34.

Land Development :

Table No. 3: Showing Amounts of Loans Disbursed

Particulars	2014-2015	2016-2017	2019-2020
Loans Disbursed	28.50 lakhs	65.72 lakhs	26.90 lakhs
No. of farmers	11 units	17 units	8 units

Source: Compiled from various annual reports of the Goa State Co-operative Bank.

The bank is providing finance to the farmers land degradation. The main problem of Indian Agriculture is Land degradation. In most parts of our country is evidence of degradation and affecting the productive resource base. Soil degradation is also takes place for cultivation of the same crops every year and making excessive use of chemical fertilizer etc. The purpose why you need that is because of Land levelling, reclamation of soil etc. From the table no. 03, it can be seen that, the loans sectioned was 28.50 lakhs and 11 were the members who took in the year 2014-15. The loans disbursed and number of farmers was 65.72 lakhs and 17 farmers during the year 2016-17. These shows there has been increase in the year as compared to earlier. But in the year 2019-20, the table is showing sudden down in the year 2019-2020, that was 26.90 lakhs and 8 farmers as compared to earlier year.

Minor Irrigation :

Table No. 4: Showing Amounts of Loans Disbursed

Particulars	2014-2015	2016-2017	2019-2020
Loans Disbursed	1.80 lakhs	5.67 lakhs	12.34 lakhs
No. of farmers	1 unit	5 units	5 units

Source: Compiled from various annual reports of the Goa State Co-operative Bank.

The bank is providing financial assistance for minor irrigation to the farmer. The objective of this finance for irrigation is to meet genuine credit needs of the farmers for development of farm irrigation facilities and cropping intensity. Further to help to increase production which in turn will bring more income to the farmers. The farmers can avail the credit for lift irrigation, well

irrigation purchase of water pump, etc. From the table no.04, it can be shown us that in the year 2014-15, the loans disbursed was 1.80 lakhs and number of farmers was only one as people were unaware about the scheme provided by the bank. In the year 2016-17, the number of farmers and the amount started increasing that was 5 and 5.67 lakhs. During the year 2019- 20, the number of farmers were same as 5 but there was a rise in the loans sectioned, it was 12.34 lakhs as after some time the farmers started taking interest in it.

Sudharit Kamdhenu:

Table No. 5: Showing Amounts of Loans Disbursed

Particulars	2014-2015	2016-2017	2019-2020
Loans Disbursed	804.16 lakhs	895.00 lakhs	1083.51 lakhs
No. of farmers	405 units	318 units	278 units

Source: Compiled from various annual reports of the Goa State Co-operative Bank.

This scheme is provided by the bank to farmers to get financial assistance for purchase of cross breed cows and buffaloes for the dairy unit. The objectives of this scheme is to increase the milk production and make self-sufficient in milk production and to promote self-employment in the Dairy sector. From the table no. 05, it can be analysed that in the beginning of the scheme, loans disbursed was 804.16 lakhs and numbers of farmers were 405 for the year 2014-15. In the year 2016-17, there was a slight decrease in number of farmers it was 318 but increase in loans sectioned that was 895.00 lakhs. In the year 2019-20, the same changes can be seen, where the number of farmers got decreased and loans disbursed got increased that was 278 and 1083.51. These is because some farmers already have taken this scheme, so as the year passes the number of farmers decreases and the loans sectioned was increased.

For Setting \up of Dairy Unit:

The bank provides finance for scheme for setting up of dairy unit. The purpose of the dairy unit is to established small dairy unit with 1 to 5 milch cattle and also to increase medium/large unit. They want collection, processing, manufacturing of milk products and distribution of milk. Further to purchase of crossbreed milch cattle and construction of cattle shed. From the table no. 06, it can be seen that for the year 2014-15 it shows nil, because the scheme was not started at that point of time. In the

year 2016-17, we can see that, there was only one farmer who took this opportunity of loan and that was for 99.80 lakhs. But in the year 2019-20, there was rapid increase in loans disbursed that was 175.00 lakhs and only 2 farmers have taken it.

Table No. 6: Showing Amounts of Loans Disbursed

Particulars	2014-2015	2016-2017	2019-2020
Loans Disbursed	Nil	99.80 lakhs	175.00 lakhs
No. of farmers	Nil	1 unit	2 units

Source: Compiled from various annual reports of the Goa State Co-operative Bank.

Dairy Equipment Scheme :

Table No. 7: Showing Amounts of Loans Disbursed

Particulars	2014-2015	2016-2017	2019-2020
Loans Disbursed	18.52 lakhs	29.82 lakhs	60.29 lakhs
No. of farmers	11 units	18 units	40 units

Source: Compiled from various annual reports of the Goa State Co-operative Bank.

The bank provides finance to the farmers in order to purchase dairy equipment and to increase the dairy industry in the state. It will also help to reduce the practical difficulties and manpower of the farmers to purchase the needed equipment of dairy farming. From the table no. 07, we can see that number of farmers were 11 and loans disbursed was 18.52 lakhs, which shows good response from the farmers. Then, there was an increase in number of farmers and loans disbursed that was 18 and 29.82 lakhs for the year 2016-17. Whereas, in the year 2019-20, there was rapid increase in number of farmers that was 40 and loans disbursed was 60.29 lakhs.

Construction of Poly House/Green House :

Table No. 8: Showing Amounts of Loans Disbursed

Loans Disbursed	Nil	103.76 lakhs	Nil
No. of farmers	Nil	2 units	Nil

Source: Compiled from various annual reports of the Goa State Co-operative Bank.

Poly house farming helps the farmers to generate income over the year growing multiple crops and fetching premium pricing for off season vegetables. This farming is new alternative technique in agriculture that gains foothold in rural India. So it reduces dependency on rainfall and makes the optimum use of land and water resources and also minimum labourer. From the table no. 08, we can see that in the year 2014-15 and in 2019-20, the loans disbursed and the number of farmers both are nil and the reason behind is that some farmers are not aware and some are not interested in this scheme. But in the year 2016-17, the response came from 2 farmers and the loans sectioned was 103.76 lakhs.

Green Fodder Cultivation :

Table No. 9: Showing Amounts of Loans Disbursed

Particulars	2014-2015	2016-2017	2019-2020
Loans Disbursed	Nil	5.00 lakhs	1.00 lakhs
No. of farmers	Nil	10 units	2 units

Source: Compiled from various annual reports of the Goa State Co-operative Bank.

The bank is providing finance for green fodder cultivation to make them available to the whole life the year around. The objective is to increase green fodder production and to reduce the cost of feeding milch animals by reducing the cost of milk production. They also encourage the farmers to bring surplus barren land for cultivation by giving them a source of income and reducing the unemployment problem in the state. From the table no. 09, we can see that in the year 2014-15, both loan disbursed and number of farmers are nil. But it has been shown increased in loans disbursed and number of farmers that was 5.00 lakhs and 10 members. Whereas, in the year 2019-20 there is again decreased in number of farmers that was 2 and loans disbursed was 1.00 lakhs.

Mango Plantation, Coconut Plantation, Arecanut Plantation, Banana Cultivation And Cashew Plantation

Mango plantation, Coconut plantation, Arecanut plantation, Banana plantation and Cashew plantation are coming under one project. It means that the farmer first has to make all the planning regarding the land development, construction of well, digging, etc. for the plantation. This plan will include all the costs and according to the cost required for the

plantation of a particular crop, they are providing finance to the farmers. There is no exact data for a particular plantation. The loans may be in the long term or medium-term and the maintenance of the plantations are coming under KCC Scheme.

Insurance Schemes :

The bank is also providing insurance schemes:

- Deposit insurance and credit guarantee (DICGC)
- Janashree Bima Yojana
- Promotion of Farmer's Club and Self Help Group
- The Scheme for Financing Joint Liability Group (JLGS)

9. Findings :

The result of the study would be, the bank is helping the farmers/agriculturist in a very excellent way by providing financial assistance. The management committee is also keeping all the records of the performances of the bank. The staff of the bank is also helping the farmers for getting things done to get loans and schemes. The farmers are also making the best use of the schemes and insurances offered by the bank. From the Goa State Co-operative Bank Limited, many people from Goa are interested in taking the schemes and insurance available for them.

10. Conclusion :

The study concluded, The Goa State Co-operative Bank Limited is playing a very important role in the farming or agricultural sector in the state of Goa. The bank is an Apex bank with 55 branches and through branches, the bank is providing all the related and updated information regarding farming to the farmers. To the extent of their knowledge in the field of agriculture, the bank is also organizing workshops, camps for the farmers. They also organize workshops for the staff members of the bank to increase their knowledge of banking services.

The target or focus of the bank is on only farming or agriculture sector. The bank is providing financial support to the farmers or agriculturist through schemes, insurance and other facilities available. The bank provides them short term, medium term and long term loans to the farmers so that they can cultivate their crops as much as possible. The mission of the bank is to provide ATM van machines in rural villages of the state. Till now the bank is having overall good performance in the state and it can be seen that the

farmers or agriculturist are also happy with the services provided by the bank.

11. Suggestions :

- The bank can provide training programmes for the farmers and agriculturist to know how to use new technology related to farming
- The bank can also provide training for the students or outsiders of the bank in answering the banking exams.
- The banks can also organize programme for non-agricultural people so that others will get aware about the opportunities available in the bank and they can also start farming around their house.
- The bank can organize social events like annual drama festivals for their members as a part of an entertainment.

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Enhancing Efficiency And Addressing Climate Change: An Analysis of Digitization Initiatives

Mr. Sharanagowda G Patil*

Abstract :

This paper is an early draft of an ongoing study. The paper is presented to seek views of scholars in finetuning the study.

Introduction:

Digitization of services offered by business organizations serves the ‘double bottom line’. On the one hand it enhances efficiency through increased speed and quality while on the other hand it reduces pressure on climate (Abdul-LateefBalogun et al., 2020) through reduced consumption of writing materials and carbon printing. It is opined that cooperatives are expanding their development efforts creatively, into areas such as environmental sustainability and carbon neutrality, as communities around the world are struggling to adapt to climate change and strengthen their resilience against its impacts” (Moon, 2008). Therefore, digitization is seen to be a proactive initiative for any organization. In the context of cooperatives digitization also adds value in terms of professionalism, the third bottom line for community cantered organizations. Studies have demonstrated that digitization in cooperatives helps realize the growth potential (Augustin Lopez, 2021). Given this context, it is imperative that an evaluation of digital initiatives by cooperatives would be both timely and relevant.

This paper is an early draft based on an ongoing study of impact of digitization in terms of achieving the double bottom line – that of increasing efficiency (professionalism) and addressing climate change (managing carbon footprints). The author wishes to seek views of learned scholars in shaping the ongoing study further.

*Managing Director, Karnataka State Souharda Federal Cooperative Limited
Bengaluru, Karnataka

Objectives:

The present research is focussed on analysing the digital initiatives of the Karnataka State Souharda Federal Cooperative (KSSFC), which is the apex body of souharda cooperatives in Karnataka state. Souharda Cooperatives are a type of mutually aided cooperatives functioning in only a handful of states in India. In terms of their number (more than 5418 as of date) and the creation of a federal entity (only one in India) these autonomous cooperatives functioning in Karnataka State are unique. The present study aims to investigate as to how digitization initiatives by the federal cooperative has impacted in terms of organizational efficiency and reduction of pressure on climate and environment. Specifically, the study aims to address the following issues.

- a. To examine different digital initiatives undertaken by the KSSFC.
- b. To analyse as to what extent these initiatives have contributed to enhancing efficiency
- c. To estimate the contribution of digital initiatives towards reducing pressure on climate
- d. To suggest ways of further improving the process of digitization.

Methodology:

The study is empirical in nature. The analysis depends on the primary and secondary data gathered from KSSFC. Primary data is gathered by personally interviewing the members of top management and seeking their views about the plan for digital initiatives. Data is also gathered from the staff of KSSFC, through a structured questionnaire as to their perception of increased efficiency after the introduction of digitization. The documents such as financial statements, proceedings of meetings and annual reports are used as secondary sources of data. Where possible an attempt is also made to quantify the impact by comparing the situation to the base year.

Profile of KSSFC:

Souharda Cooperatives are the new generation cooperatives started in the state of Karnataka in India through the passing of a parallel legislation that paved the way for incorporating mutually aided type of cooperatives that are more autonomous and self-reliant compared to the cooperatives established under the conventional legislation viz., the Karnataka State Cooperative Societies Act 1969. Karnataka State Souharda Federal Cooperative Ltd, the first Apex Body of New generation cooperatives in India. Souharda Federal

Cooperative is a democratically elected self-regulatory organization of the cooperatives registered under Karnataka Souharda Sahakari Act, 1997. All the cooperatives registered under the Act are the members of Federal cooperative. The membership to Federal cooperative is mandatory. At present there are 5114 member cooperatives for the federation.

The apex body of the organization is the general body consisting of representatives of member cooperatives. The General Body meets once in a year. If any urgent matters special General Body may be convened. Each revenue district will have one representation in the Board. The Board of Directors will be elected from the members. The board will meet six times in a year. It is the policy making body of the cooperative and its term is five cooperative years. The board of directors will elect the President and Vice President The objective of the organization is not to control the members but to act as friend, philosopher, and guide to the members in discharge of their fiduciary functions.

It is the intent of KSSFC to motivate the member cooperatives by more by setting the examples through execution, than merely advising and ordering the members. Hence, in all aspects of infusing professionalism and in pursuing the cooperative identity, the federal cooperatives take the lead to first implement changes at the federation level itself. The same is the case with digital initiatives as well. In the past ten years various digital initiatives have been put in place and through these initiatives not only the efficiency of KSSFC has increased but it created a demonstration effect and the member cooperatives have started implementing similar initiatives.

Types of Digital Initiatives By KSSFC:

Beginning from 2010 the KSSFC has pursued a chosen path of creating a digital workdomain for itself as well as the entire gamut of souharda cooperatives. There have been mixed results both in terms of the extent of implementation as well as in terms of effects of such initiatives. None the less, the federation is pushing ahead with such initiatives, since it is convinced that digitization is a panacea not only for the challenges faced by cooperatives in terms of professionalism and efficiency, but also in creating sustainable climate gains. Some of the important initiatives implemented at KSSFC include the following.

1. Computerization of office Management System:

This is the earliest initiative taken up by the federation. Started in early part

of previous decade, at present the entire office management takes place on a digital mode. Paperwork and physical filing are kept at the minimum and done only when inevitable.

2. Digital Communication With Member Cooperatives:

The efforts towards internet- based communication with member cooperatives was started in 2011 and at present almost 90 percent of the communication is through emails and other digital platforms. All letters, circulars, meeting notices and despatch of any other documents are done through digital mode. Only in case of some member cooperatives which have not yet developed such communication systems, physical paper-based communication is made.

3. Digital Mode of Business:

The only business activity that the federation is pursuing currently is the E-Stamping business. The federation acts as the nodal centre for all the cooperatives that have the E-Stamping business, through the Stock Holding Corporation of India. This business is entirely through the digital mode. The E- Stamps are generated through the computer-based communication system. Only at the level of users of such stamps a physical print is provided.

4. Digital Payment System:

All monetary transactions have been done online beginning from 2017. Almost all payments done by KSSFC as well as receipts in terms of contribution to education fund, member subscriptions, fees payable are also done through direct bank transfer. Only a small number of member cooperatives who have not fully computerized their operations send out cheques for collection while making payments to KSSFC.

5. Q R Scanning System:

In the last three years the federation has started using the QR scanning system for many documents and other information. For instance, whenever a training programme is organized the details of the venue along with location map details are sent through a code and the participants can simply scan it and get details through their smart phone.

6. Work-From-Home Arrangement:

Since the federation has already put in place a fully digitized office man-

agement system, it became possible to shift to work-from home arrangement during the ongoing pandemic period. Beginning from mid-2019, the federation is opting for this arrangement for many staff members. At present this arrangement is on a voluntary basis.

7. Video Conferencing System:

The system of online meetings was introduced by the federation beginning from 2018 itself. Internet mode of meetings were used, particularly when the head office had the need to have face to face communication with the heads and staff of the regional offices. This system is extensively used at present, and most meetings are done through online mode.

8. Online Training:

Training of staff as well as members and leaders of souharda cooperatives is one of the important functions of the federation. Upon the onset of the pandemic the federation has shifted to online training mode rather easily. Platforms such as Go-to-meeting and Google meet are used in most training programs.

Evaluation of Digital Initiatives:

An attempt is made in the following pages to demonstrate as to how the digital initiatives are progressing and impacting on the functioning of the federation. Most data presented for this purpose are approximations and the federation is in the process of identifying the right tools for more scientific quantification of results. Nonetheless, the data presented in the following Table gives an overall idea of the way digital initiatives are progressing.

Table Showing Indicators of Digital Initiatives

Particulars	1	2	3	4	5	6	7	8
Year of implementation	2007	2011	2012	2017	2018	2019	2018	2019
% completion	100%	80-90%	100%	80-90%	60-70%	50-60%	80-90%	80-90%
What % of current work done through this mode?	100%	80-90%	100%	80-90%	80-90%	70-80%	80-90%	80-90%

How much efficiency has increased (%)	10-15%	10-15%	20-30%	20-30%	10-15%	10-15%	20-30%	20-30%
How much reduction in operating cost (%)	10-20%	10-20%	10-20%	10-20%	10-20%	10-20%	30-40%	30-40%
How much reduction in stationery cost (%)	10-20%	10-20%	10-20%	10-20%	10-20%	10-20%	20-30%	20-30%
How much reduction in printing (%)	50%	50%	50%	50%	50%	50%	50%	50%
How much reduction in humancost? (%)	30%	30%	30%	30%	30%	30%	30%	30%

Source: Approximations based on Records of KSSFC

(1. Computerization of office management system; 2. Digital communication with member coops; 3. Digital mode of business (e stamping); 4. Digital payment system; 5. QR scan system; 6. Work from home arrangement; 7. Video conferencing/meeting system; 8. Online training system)

It may be seen through the data given in the above table that the digital initiatives have been making an impressive progress and are also making a noticeable impact. While office management is fully computerized, and the E-Stamping business is also handled through the designated digital platform. It is estimated that these two functional areas have been able to witness an increased productivity level of around 15 percent. When compared to the situation before implementation of these initiatives, it is estimated that the cost of stationery as well as the average operating cost have come down. The other digital initiatives are making a slow progress but are steadily increasing. The two areas that have seen a quick progress and made a big difference in terms of cost as well as effectiveness are the online meeting system and online training system. In this the operating cost of the events has come down by 30 to 40 percent and the stationery cost has come down by 20 to 20 percent. On overall terms digitization initiatives have on an average reduced printing by almost half and necessitated some 30 percent human resource to realize the desired performance. This also means that the carbon emission is reduced, consumption of materials is controlled, and

efficiency levels of human resources have increased. It is indeed noteworthy that there is all- round contribution of digital initiatives.

CONCLUSION:

Digitization is the need of the hour. It has many ramifications for business enterprises. Cooperatives being both business enterprises and organizations with concern for community, can realize the goal of double – bottom line through the digitization process. As demonstrated by the case example of KSSF, digitization has significant positive impact. There are benefits to the organization such as reduced cost and increased efficiency. There are also invisible but equally important benefits accrued through conserving resources (reduced use of stationery) and lesser carbon emission (reduced printing). Therefore, digitization needs to be pursued by all cooperatives in all earnestness.

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Analysing The Performance of Public, Private And Cooperative Banks Operating In India Using Camel Approach: An Applications of Pls-Sem

Satish S. Rane*, **Dr. S. V. Sukthankar****
Namrata D. Bhandari***

Abstract :

The Indian banking system consists of 12 public sector banks, 22 private sector banks, 46 foreign banks, 56 regional rural banks, 1485 urban cooperative banks and 96,000 rural cooperative banks. The cooperative banks have played an essential role in developing the Indian economy and commercial banks, i.e. public and private sector banks. The present study tries to find out the relationship and determines the impact of CAMEL indicators on the Financial Performance of selected banks operating in India and also compares the performance of public, private and cooperative banks operating in India using five dimensions of CAMEL model rating, i.e. Capital Adequacy, Assets Quality, Management Efficiency, Earning Capacity and Liquidity. For the present study, the researchers have selected the five largest public sector banks, i.e. State Bank of India (SBI), Bank of Baroda, Punjab National Bank, Canara Bank & Union Bank of India, five most significant private sector banks, i.e. HDFC Bank, ICICI Bank, Axis Bank, Kotak Mahindra Bank & IndusInd Bank and five largest Multi-state scheduled cooperative banks, i.e. Saraswat Cooperative Bank, Cosmos Cooperative Bank, Shamrao Vithal Cooperative Bank, Abhyudaya Cooperative Bank and Bharat Cooperative Bank. The study is based on secondary data of 5 years, i.e. from the financial year 2016-17 to 2020-21, collected from official websites of respective banks. Empirical analysis of the study has been performed using CAMEL model rating in SPSS Amos software by applying Partial Least Square Structural Equation Model (PLS-SEM). The study found that selected public, private and cooperative

*PhD. Research Scholar, **Associate Professor of Commerce,
 ***Assistant Professor of Commerce

banks differ significantly based on CAMEL rating given for five dimensions, i.e. Capital Adequacy, Assets Quality, Management Efficiency, Earning Capacity and Liquidity.

Keywords:

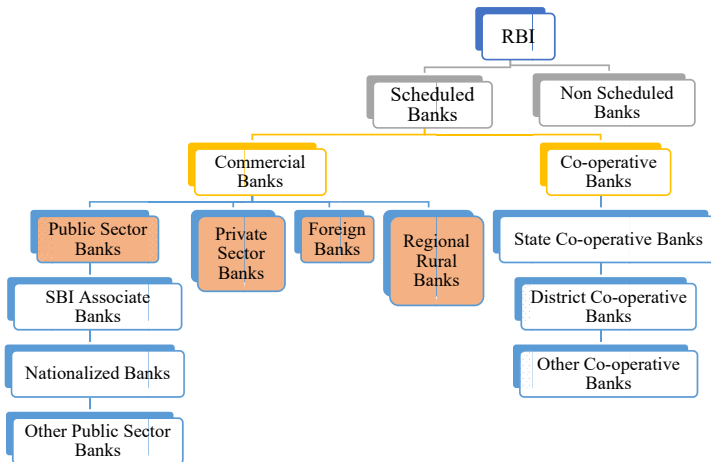
Application of PLS-SEM, CAMEL rating, Performance of public, private and cooperative banks.

1. Introduction :

The banking sector is one of the key sectors as it measures the financial and economic stability of any country and helps in monetary augmentation. (Pradip, 2020) Indian Banks act as a mediator where it collects the savings and grants funds to different segments. Therefore to have a stable financial system, we must examine the performance of banks. (Bhagirathi, A CAMEL Model Study for Financial Performance of Public and Private Sector Banks in Odisha, 2020) Financial health is of great importance for investors and the employees, the government, and the economy. (Nguyen Anh Huu, 2020)

The existing Indian banking structure has evolved over the period and caters to the economy's other credit and banking needs. (RBI, 2013)

Chart No: 1 Indian Banking Structure



Source: RBI's 'Report On Trend And Progress of Banking in India'

The Indian Banking Sector has grown at a healthy pace where bank credit and deposits were Rs 107,75,000 crores and Rs 149,34,000 crores, respectively, as of 29th February 2021. The Gross NPA ratio of Scheduled Commercial Banks decreased from 8.21 % in March 2020 to 7.49 % by the end of September 2020. (Government of India, 2020-21) As per RBI, in the year 2020, the financial performance of the banking sector has improved after facing the loss for the past two years. (Foundation, 2021) Currently, India's banking system focuses on grabbing the opportunities and reviving itself from the COVID-19 pandemic. RBI is committed to preserving financial stability, enhancing transparency, and stabilising market outlooks. (Report on Trend and Progress of Banking In India, 2019-20)

Public Sector Banks:

Public sector banks account for 75 % of banking business, including significant shareholding of State bank of India. (Preeti, 2019). The government holds the majority of shares, i.e. more than 50% of these banks and they have their organisational structure and business policies. They face stiff competition in the market.

Private Sector Banks:

Private lenders control private sector banks. The interest rates charged are more as compared to public sector banks. Significant stakes are held by the private shareholders and not by the government. (Priya, 2015) These banks give stiff competition to other banks by offering different products and services.

Multi-State Cooperative Banks:

These are multi-state co-operative societies that undertake banking business in different states. It provides financial as well as other services to small farmers. As of 31st March 2020, the Total capital of State cooperative banks was Rs 7,459 crores. During the year 2019-20, there was a decline in the Credit Deposit Ratio from 109.8% to 95.1%. (NABARD, 2020)

The health of different banks can be determined by using CAMEL rating system. CAMEL evaluates banks' financial robustness using five dimensions: capital adequacy, asset quality, management soundness, earning capacity, and liquidity. (Anas, 2018) It helps to assess the loan loss and mitigate the risks which may result in bank failures. (L, 2014) Even though researchers use the CAMEL framework to understand bank-

specific variables, it may sometimes include latent variables that are not directly observed. Therefore Partial least Square (PLS) Structural Equation Modeling (SEM) is used to know the cause and effect relationship among latent variables (Madurai, 2018).

2. Statement of Research Problem :

Banks are one of the critical financial pillars which play a vital role in the functioning of an economy. A Sound banking system will efficiently mobilise the savings and meet the obligation of its depositors. Therefore, to get deep insights into the banking system in India, the study is finding out the relationship and analysing the impact of CAMEL indicators on the Financial Performance of selected banks operating in India and comparing the performance of public, private, and cooperative banks operating in India. This would help the commoner choose a bank with good performance while investing.

3. Literature Review:

Bank Performance or Soundness depicts the ability to survive in adverse economic conditions. Sometimes, it is not possible to define a bank as a “good performer” or a “bad performer” at a particular time because it may be performing well in the present, but there may be various problems in the future. Therefore, to get a clear answer, the focus should be on indicators that outline a bank's performance. (Ayadurai, Bank soundness: a PLS- SEM approach, 2018)

Previously researchers have discussed different attributes that affect the profitability and performance of banks. (Barjoyai, 2020). Financial soundness has been evaluated by way of the CAMEL model (Bhagirathi, 2020) (Subhi, 2019) (Mohammed, 2020), where researchers have studied the financial strength of public and private sector banks in Odisha, the performance of Saudi commercial banks and economic growth and performance of Islamic banks. Researchers found out that there is a significant difference in the performance of selected banks, and necessary measures are required to be taken to improve the performance of low ranked banks, profitability had a positive impact, and inflation hurt the performance of commercial banks in Saudi, Islamic finance has resulted in economic growth by way of profitability.

Comparative studies were also undertaken by different research scholars such as (Dodoev, 2018), who emphasised comparative analysis of Islamic

and Conventional Banks, which revealed no difference in overall financial performance using the CAMEL model. (Sudheer, 2020) evaluated the performance of commercial and co-operative banks by calculating ratios. He concluded that profit generation was more in commercial banks. (M Guruprasad, 2020) examined the performance of selected commercial and urban cooperative banks using CAMEL analysis. The study indicated that the banks are progressing for 2015-2018.

Researchers have also exploited various Partial Least Squares Structural Equation Modeling capabilities in their research work. (Ayadurai, Bank Soundness: a PLS-SEM approach, 2018) have studied bank soundness of G7 countries for 2003-13 where CAMELS framework was adopted, and PLS-SEM was used to understand the relationships between the latent variables. Findings stated that there was weakness in capital and liquidity measures. (Samuel Gameli Gadzo, 2019) studied the effect of credit and operational risk on the financial performance of universal banks in Ghana, which indicated that specific bank variables influence credit risk, operational risk, and financial performance. (Avkiran, 2018) measured the systemic risk of regional banks in Japan using PLS-SEM. These scholarly works have helped the researcher to define the gap.

4. Research Gap :

Earlier studies have focused on evaluating the performance of banks by using the CAMEL model as well as comparative studies was also conducted concerning the banking sector. Therefore, the researcher focuses on studying the performance of public, private and cooperative banks through the CAMEL framework and using the PLS-SEM model to get meaningful insights concerning latent variables of the study.

5. Research Question :

- i. Is there any relation between CAMEL indicators and the Financial Performance of selected banks operating in India?
- ii. What is the impact of CAMEL indicators on the Financial Performance of selected banks operating in India?
- iii. Is there any difference between the performance of public, private and cooperative banks operating in India based on CAMEL indicators?

6. Objectives of the Study :

- i. To study the relationship between CAMEL indicators and the financial performance of selected banks operating in India.

- ii. To analyse the impact of CAMEL indicators on the Financial Performance of selected banks operating in India.
- iii. To compare the performance of public, private and cooperative banks operating in India based on CAMEL indicators.

7. Research Methodology :

The study uses the PLS-SEM model, a non-parametric estimator & an appropriate technique for the research. (Ringle, 2018). It helps us identify the critical variables amongst the CAMEL constructs that determine bank soundness. PLS-SEM detects the relationship between the variables. (Chin 1998) (Avkiran, 2018). It has been used in different areas such as marketing research, operational research, strategic management and accounting. (Monecke and Leisch, 2012) (Alhassany, 2018) It works well with a complex framework; therefore, the researchers in their present study have used the PLS-SEM model to understand the constructs that trigger the variables selected for the research and how latent factors result in variation in the data. (Ayadurai, Bank Soundness: a PLS-SEM approach, 2018).

Researchers in their present study focuses on analysing the impact of CAMEL indicators on Financial Performance, studying the relationship between CAMEL indicators and Financial Performance and comparing the performance of public, private and cooperative banks where five largest public sector banks, i.e. State Bank of India (SBI), Bank of Baroda, Punjab National Bank, Canara Bank & Union Bank of India, five most significant private sector banks, i.e. HDFC Bank, ICICI Bank, Axis Bank, Kotak Mahindra Bank & IndusInd Bank and five largest Multi-state scheduled cooperative banks, i.e. Saraswat Cooperative Bank, Cosmos Cooperative Bank, Shamrao Vithal Cooperative Bank, Abhyudaya Cooperative Bank and Bharat Cooperative Bank. The study period is from 2016-17 to 2020-21. The data was collected from banks' official websites and the RBI website. The tool used for analysing the information is SMART PLS 3.

The technique used to compare the performance was the CAMEL model rating. CAMEL- Capital adequacy, Asset quality, Management, Earnings, Liquidity is an evaluation tool for Bank performance. According to an IMF report (2000), the use of CAMEL is a valuable measure for financial system stability. (Mohammed, 2020). It includes five direct constructs: Capital Adequacy, Assets Quality, Management Efficiency, Earning Capacity, and Liquidity.

The Study has used the following components under each construct:

Table No 1: Camel Model Components

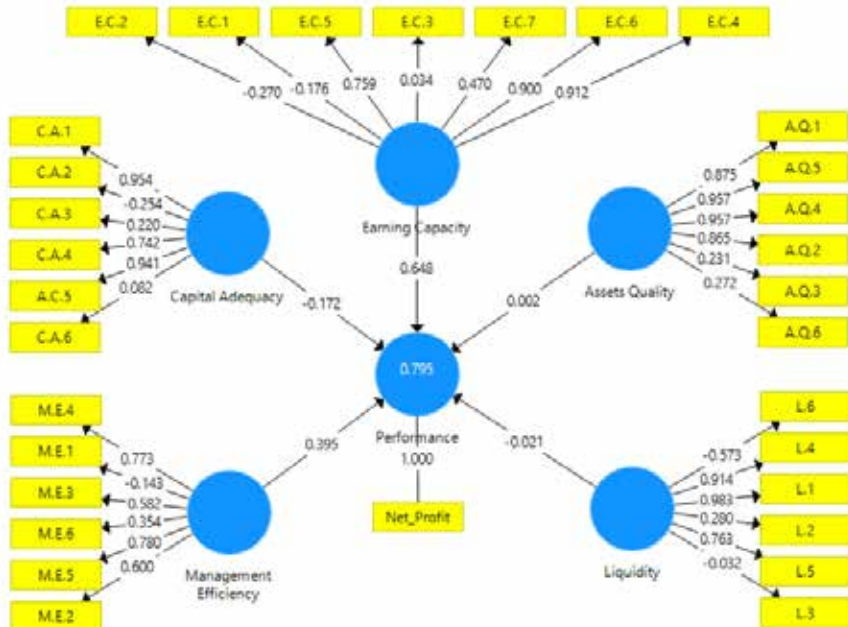
CONSTRUCT	CODE	COMPONENTS	FORMULA
Capital Adequacy	C.A1	1) Capital Adequacy Ratio	Capital/ Risk-Weighted Assets
	C.A2	2) Debt to Equity Ratio	Debt / Equity
	C.A3	3) Equity to Total Assets	Equity / Total Assets
	C.A4	4) Reserves & Surplus to Total Assets	Reserves & Surplus / Total Assets
	C.A5	5) Tier 1 Capital to Risk-Weighted Assets	Tier 1 Capital / Risk-Weighted Assets
	C.A6	6) Tier 2 Capital to Risk-Weighted Assets	Tier 2 Capital / Risk-Weighted Assets
Asset Quality	A.Q1	1) Gross NPA Ratio	Total Gross NPA / Total Advances
	A.Q2	2) Net NPA Ratio	Gross NPAs - Provisions
	A.Q3	3) Provision for loan loss to net advance	Provision for loan loss/net advance
	A.Q4	4) NPA to Total Equity	NPA / Total Equity
	A.Q5	5) NPA to Total Assets	NPA / Total Assets
	A.Q6	6) Provision to Loan loss to Total loan	Provision to Loan loss / Total loan
Management Efficiency	M.E1	1) Business Per Employee	
	M.E2	2) Profit Per Employee	
	M.E3	3) Credit Deposit Ratio	Credit / Deposit
	M.E4	4) Business Per Branch	
	M.E5	5) Profit Per Branch	
	M.E6	6) Operating Income to Total Assets	Operating Income / Total Assets
Earning Capacity	E.C1	1) Interest Income to Total Income	Interest Income / Total Income
	E.C2	2) Interest Income to Total Assets	Interest Income / Total Assets
	E.C3	3) Non-Interest Income to Total Assets	Non- Interest Income / Total Assets
	E.C4	5) Return on Equity	Net income/ shareholder equity
	E.C5	6) Net Interest Margin	Net Interest Income/ Average Assets
	E.C6	7) Return on Assets	Net income / Total Assets
	E.C7	8) Return on Advances	Interest income / Average Advances
Liquidity	L1	1) Liquid Assets to Deposit & Non-Deposit	Liquid Assets / Deposit & Non Deposit
	L2	2) Liquid Assets to short term liabilities	Liquid Assets / short term liabilities
	L3	3) Liquid Assets to Total Assets	Liquid Assets / Total Assets
	L4	4) Liquid Assets to Total Deposits	Liquid Assets / Total Deposits
	L5	5) Liquid Assets to Customer & Short Term Deposits	Liquid Assets / Customer & Short Term Deposits
	L6	6) Cash Deposit Ratio	Cash in hand/ Total Deposits

8. Empirical Data Analysis & Interpretation :

PLS (Partial Least Squares) Algorithm and Bootstrapping is a nonparametric procedure that allows testing the statistical significance of various PLS-SEM results. In the present study, the researcher has used PLS Algorithm and PLS Bootstrapping to test the statistical significance of CAMEL model constructs & their indicators using PLS-SEM Path analysis.

Chart No 2 shows the PLS-SEM Path output run using PLS Algorithm and Bootstrapping to analyse the CAMEL model structure for Public sector banks. The R-Square for the above model is 0.795, which indicates that 79.5% of the variation in performance is explained by latent variables of the Camel model, i.e., Capital Adequacy, Assets Quality, Management Efficiency, Earning Capacity & Liquidity. The latent variables such as assets quality, management efficiency, and earning capacity positively impact performance, while capital adequacy & liquidity hurts performance. It also states that all the indicators of individual latent variables significantly explain the constructs or latent variables.

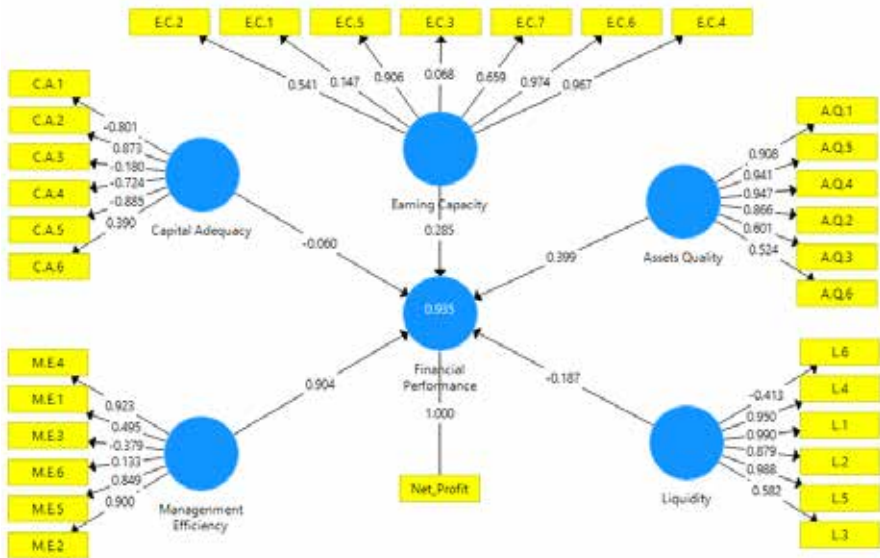
Chart No 2: PLS Algorithm And Bootstrapping for Camel Model Constructs And its indicators of Public Sector Banks.



Source: Compiled using secondary data in Smart-PLS 3

Chart No 3 shows the PLS-SEM Path output run using PLS Algorithm and Bootstrapping to analyse the CAMEL model structure for Private sector banks. The R-Square for the above model is 0.935, which indicates that 93.5% of the variation in performance is explained by the latent variables of the Camel model, i.e., Capital Adequacy, Assets Quality, Management Efficiency, Earning Capacity & Liquidity. The latent variables such as assets quality, management efficiency, and earning capacity positively impact performance, while capital adequacy & liquidity hurt performance. The indicators of individual latent variables are significantly explaining the latent variables.

Chart No 3: PLS Algorithm and Bootstrapping for CAMEL model constructs and its indicators of Private sector banks.

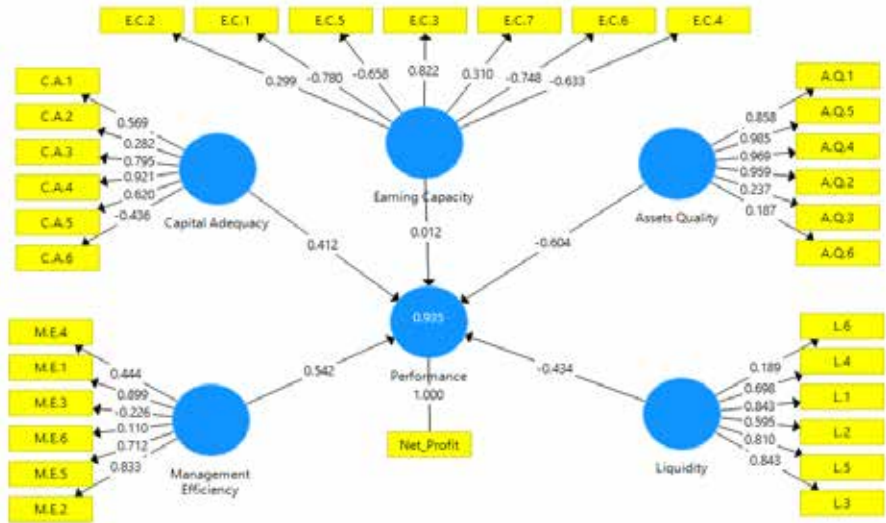


Source: Compiled using secondary data in Smart-PLS 3

Chart No 4 shows the PLS-SEM Path output run using PLS Algorithm and Bootstrapping to analyse the CAMEL model structure for Cooperative banks. The R-Square for the above model is 0.935, which indicates that latent variables explain 93.5% of the variation in performance of the Camel model, i.e., Capital Adequacy, Assets Quality, Management Efficiency, Earning Capacity & Liquidity. The latent variables such as Capital

Adequacy, management efficiency & earning capacity have a positive impact on performance, while assets quality & liquidity negatively impact performance. It also tells us that all the indicators of individual latent variables significantly explain the constructs or latent variables.

Chart No 4: PLS Algorithm and Bootstrapping for CAMEL model constructs and its indicators of Cooperative Banks.



Source: Compiled using secondary data in Smart-PLS 3

Table No 2: Relationship between Camel model indicators and performance of public, private and coop banks operating in India.

Camel Indicators Correlation Matrix with Performance of Public, Private and Cooperative Banks			
Variables	Public Sector Banks	Private Sector Banks	Cooperative Banks
Capital Adequacy <-----> Performance	0.628	-0.636	0.412
Assets Quality <-----> Performance	-0.765	-0.355	-0.604
Management Efficiency <-----> Performance	0.851	0.935	0.542
Earning Capacity <-----> Performance	0.871	0.559	0.012
Liquidity <-----> Performance	-0.191	-0.181	-0.434

Source: Compiled Using Secondary Data In Smart-Pls 3

Table No 2 shows the correlation matrix between indicators of the Camel model and performance of selected public, private and cooperative banks. Capital adequacy, Management efficiency and earning capacity of public sector banks positively correlate with performance. In contrast, Assets quality and Liquidity have a negative relationship, indicating that if capital adequacy, management efficiency & earning capacity of public sector banks increases by 1%, then the bank's performance will increase by 0.628%, 0.851% 0.871%, respectively. On the other hand, assets, quality & liquidity of public sector banks increases by 1%, then the performance of public sector banks will decrease by 0.765% & 0.191%, respectively. In the case of private sector banks, Capital adequacy, assets quality & liquidity has a negative relationship with performance, i.e. if those respective variables increase by 1%, the implementation of private sector banks will decrease by 0.636%, 0.355% & 0.181%, respectively. On the other hand, management efficiency & earning capacity has a positive relationship with performance, i.e. if management efficiency & making capacity increase by 1%, then the performance of private sector banks will increase by 0.935% & 0.559%, respectively. Capital adequacy, management efficiency & earning capacity has a positive relationship with the performance of cooperative banks, i.e. if these respective variables increase by 1%, then performance will also increase by 0.412%, 0.542% & 0.012%, respectively. Whereas assets quality & liquidity has a negative relationship with performance, i.e. if assets quality & liquidity increases by 1%, then performance will decrease by 0.604% & 0.434%, respectively.

Table No 3: Regression analysis for studying the impact of Camel Indicators on the performance of Public, Private & Cooperative banks operating in India.

Path Coefficient Public Sector banks Camel Model		
Variables	Path Coefficient	P-values
Capital Adequacy -----> Performance	-0.172	0.365
Assets Quality -----> Performance	0.002	0.991
Management Efficiency -----> Performance	0.395	0.296
Earning Capacity -----> Performance	0.648	0.148
Liquidity -----> Performance	-0.021	0.883
R- Square		0.795
Adjusted R-Square		0.741

Source: Compiled Using Secondary Data In Smart-Pls 3

Table No 3 shows adjusted R-Square value as 0.741, which depicts that 74.1% of the variation in performance, i.e. dependent variable, is explained by independent variables such as capital adequacy, assets quality, management efficiency, earning capacity & liquidity. The P-value for capital adequacy, assets quality, management efficiency, earning degree & liquidity is more significant than 0.05 at a 5% level of significance; hence we fail to reject the null hypothesis, which indicates that there is no significant impact of camel variables on the performance of selected public sector banks.

Table No 4: PLS-SEM Path analysis for studying the impact of Camel Indicators on the performance of Private sector banks operating in India.

Path Coefficient for Private Sector banks Camel Model		
Variables	Path Coefficient	P-Values
Capital Adequacy -----> Performance	-0.06	0.736
Assets Quality -----> Performance	0.399	0.029
Management Efficiency -----> Performance	0.904	0.0001
Earning Capacity -----> Performance	0.285	0.27
Liquidity -----> Performance	-0.187	0.166
R- Square		0.935
Adjusted R-Square		0.917

Source: Compiled Using Secondary Data In Smart-PLS 3

Table No 4 has an adjusted R-Square value of 0.917, which shows that 91.7% of the variation in performance, i.e. dependent variable, is explained by independent variables such as capital adequacy, assets quality, management efficiency, earning capacity & liquidity. The P-value for assets quality & management efficiency is less than 0.05 at a 5% level of significance; hence we reject the null hypothesis, which indicates a significant impact of assets quality & management efficiency on the performance of private sector banks. The Path coefficient value for both is positive, meaning that assets quality & management efficiency has a positive impact on performance, i.e. 1% increase in assets quality & management efficiency will lead to 0.399% & 0.904% increase in the performance of the private sector banks respectively. Whereas P-value for capital adequacy, earning capacity & liquidity is more than 0.05 at a 5% level of significance, we fail to reject the null hypothesis, which suggests that there is no significant impact of these variables on the performance of private sector banks.

Table No 5: PLS-SEM Path analysis for studying the impact of Camel Indicators on the performance of Cooperative banks operating in India.

Path Coefficient for Cooperative banks Camel Model		
Variables	Path Coefficient	P-values
Capital Adequacy -----> Performance	0.412	0.018
Assets Quality ----->Performance	-0.604	0.008
Management Efficiency -----> Performance	0.542	0.0001
Earning Capacity -----> Performance	0.012	0.945
Liquidity -----> Performance	-0.434	0.128
R- Square		0.935
Adjusted R-Square		0.918

Sources: Compiled Using Secondary Data In Smart-Pls 3

Table No 5 has adjusted the R-Square value as 0.918, which shows that 91.8% of the variation in performance, i.e. dependent variable, is explained by independent variables such as capital adequacy, assets quality, management efficiency, earning capacity & liquidity. The P-value for capital adequacy, assets quality & management efficiency is less than 0.05 at a 5% level of significance; hence we reject the null hypothesis, which indicates that there is a significant impact of these variables on the performance of cooperative banks. The Path coefficient value for capital adequacy and management efficiency is positive, which indicates that a 1% increase in these variables will lead to a 0.412% & 0.642% increase in performance of cooperative banks, respectively. In contrast, the Path coefficient value for assets quality is negative, which shows that a 1% increase in assets quality will lead to a 0.604% decrease in assets quality. P-value for earning capacity & liquidity is more than 0.05 at a 5% level of significance; hence we fail to reject the null hypothesis, which indicates that there is no significant impact of these variables on the performance of cooperative banks.

Table No 6: Pls-Sem Based Camel Rating Based on Capital Adequacy For Public, Private & Cooperative Banks

Factors Loading or Weights for Public, Private and Cooperative Banks for Capital Adequacy				
Variables	Variable Code	Public Sector Banks	Private Sector Banks	Cooperative Banks
Capital Adequacy Ratio	C.A.1	0.954	-0.801	0.569

Debt Equity Ratio	C.A.2	-0.254	0.873	0.282
Equity to Total Assets	C.A.3	0.22	-0.18	0.795
Reserve & Surplus to Total Assets	C.A.4	0.742	-0.724	0.921
Tier1 to Risk-Weighted Assets	C.A.5	0.941	-0.885	0.62
Tier2 to Risk-Weighted Assets	C.A.6	0.082	0.39	-0.436
Total Weights for Capital Adequacy	C.A.	2.685	-1.327	2.751
Ranking Based on Capital Adequacy		2nd Rank	3rd Rank	1st Rank

Source: Compiled Using Secondary Data In Smart-Pls 3

Above Table No 6 shows the Ranking for public, private & cooperative banks based on Capital Adequacy components of the Camel model. As per the Capital Adequacy indicator, Cooperative banks are Ranked 1st, followed by Public sector banks with 2nd Rank, and Private sector banks are ranked 3rd.

Table No 7: Pls-Sem Based Camel Rating Based On Assets Quality For Public, Private & Cooperative Banks

Factors Loading or Weights for Public, Private and Cooperative Banks for Assets Quality				
Variables	Variable Code	Public Sector Banks	Private Sector Banks	Cooperative Banks
Gross NPA Ratio	A.Q.1	0.875	0.908	0.858
Net NPA Ratio	A.Q.2	0.865	0.866	0.959
Provision for NPA to Net Advance	A.Q.3	0.231	0.601	0.237
Gross NPA to Total Equity	A.Q.4	0.957	0.947	0.969
Gross NPA to Total Assets	A.Q.5	0.957	0.941	0.985
Provision for NPA to Gross Advance	A.Q.6	0.272	0.524	0.187
Total Weights/Loading for Assets Quality	A.Q.	4.157	4.787	4.195
Ranking Based on Assets Quality		3rd Rank	1st Rank	2nd Rank

Source: Compiled Using Secondary Data In Smart-Pls 3

As shown in table no 7, Private banks are ranked first based on Assets quality, followed by Cooperative banks with 2nd Rank & the last 3rd rank goes to public sector banks.

Table No 8: PLS-SEM based CAMEL rating based on Management Efficiency for Public, Private & Cooperative Banks

Factors Loading or Weights for Public, Private and Cooperative Banks for Management Efficiency				
Variables	Variable Code	Public Sector Banks	Private Sector Banks	Cooperative Banks
Business per employee	M.E.1	-0.143	0.495	0.899
Profit Per Employee	M.E.2	0.6	0.9	0.833
Credit-Deposits Ratio	M.E.3	0.582	-0.379	-0.226
Business per Branch	M.E.4	0.773	0.923	0.444
Profit per Branch	M.E.5	0.78	0.849	0.712
Operating Income to Total Assets	M.E.6	0.354	0.133	0.11
Total Weights/Loading for Management Efficiency	M.E.	2.946	2.921	2.772
Ranking Based on Management Efficiency		1 st Rank	2 nd Rank	3 rd Rank

Source: Compiled Using Secondary Data In Smart-PLS 3

Table No 8 tells us the public, private & cooperative banks based on management efficiency. In terms of Management efficiency, Public sector banks are ranked 1st, followed by private sector banks with 2nd rank and cooperative with 3rd rank.

Table No 9: PLS-SEM based CAMEL rating based on Earning Capacity for Public, Private & Cooperative Banks

Factors Loading or Weights for Public, Private and Cooperative Banks for Earning Capacity				
Variables	Variable Code	Public Sector Banks	Private Sector Banks	Cooperative Banks
Interest Income to Total Income	E.C.1	-0.176	0.147	-0.78
Interest Income to Total Assets	E.C.2	-0.27	0.541	0.299
Non-Interest Income to Total Assets	E.C.3	0.034	0.068	0.822
Return on Equity	E.C.4	0.912	0.967	-0.633
Net Interest Margin	E.C.5	0.759	0.906	-0.658
Return on Assets	E.C.6	0.9	0.974	-0.748
Return on Advance	E.C.7	0.47	0.659	0.31
Total Weights/Loading for Earning Capacity		2.629	4.262	-1.388
Ranking Based on Earning Capacity		2 nd Rank	1 st Rank	3 rd Rank

Sources: Compiled Using Secondary Data In Smart-PLS 3

Table No 9 reveals that Private sector banks are ranked 1st in Earning capacity, followed by public sector banks with 2nd rank and cooperative banks with 3rd rank.

Table No10: PLS-SEM based CAMEL rating based on Liquidity for Public, Private & Cooperative Banks

Factors Loading or Weights for Public, Private and Cooperative Banks for Liquidity				
Variables	Variable Code	Public Sector Banks	Private Sector Banks	Cooperative Banks
Liquid Assets to Deposit & Non-deposits	L.1	0.983	0.99	0.843
Liquid Assets to Short term Liabilities	L.2	0.28	0.879	0.595
Liquid Assets to Total Deposits	L.3	-0.032	0.582	0.843
Liquid Assets to customers& short term deposits	L.4	0.914	0.95	0.698
Liquid Asset to Total Assets	L.5	0.763	0.988	0.81
cash to deposit ratio	L.6	-0.573	-0.413	0.189
Total Weights/Loading for Liquidity		2.335	3.976	3.978
Ranking Based on Liquidity		3 rd Rank	2 nd Rank	1 st Rank

Source: Compiled Using Secondary Data In Smart-PLS 3

From the above Table No 10, it can be observed that Cooperative bank has been ranked 1st in terms of liquidity followed by private sector banks with 2nd rank and public sector banks with 3rd rank.

Table No 11: The Overall Camel Rating For Public, Private & Cooperative Banks

Bank	Capital Adequacy	Assets Quality	Management Efficiency	Earning Capacity	Liquidity	Total Rank Count	Final Rank
Public Sector Banks	2 nd Rank	3 rd Rank	1 st Rank	2 nd Rank	3 rd Rank	11	3rd Rank
Private Sector Banks	3 rd Rank	1 st Rank	2 nd Rank	1 st Rank	2 nd Rank	9	1st Rank
Cooperative Banks	1 st Rank	2 nd Rank	3 rd Rank	3 rd Rank	1 st Rank	10	2nd Rank

Source: Compiled Using Secondary Data In Smart-PLS 3

Table No 11 shows the final overall first rank, based on the 5 dimensions of the Camel model, i.e. Capital adequacy, assets quality, management efficiency,

earning capacity and liquidity goes to Private sector banks, followed by the cooperative bank with second Public sector banks with 3rd rank.

9. Finding & Conclusion:

All the three CAMEL models are used to analyse the performance of Public, Private and cooperative banks using PLS-SEM Path analysis which has shown significant goodness of fit with R-Square values of 79.5%, 93.5% and 93.5%, respectively. The Adjusted R-Square value was substantial for all three models, i.e. 74.1% for public sector banks, 91.7% for private sector banks & 91.8% for cooperative banks.

Capital adequacy, Management efficiency and earning capacity of public sector banks have a positive relationship with performance, while Assets quality and Liquidity has a negative relationship. In the case of private sector banks, capital adequacy, assets quality & liquidity are negatively associated with performance & efficiency, & earning capacity has a positive relationship with performance. Capital adequacy, management efficiency & earning degree has a positive relationship with the performance of cooperative banks, whereas else assets quality & liquidity has a negative relationship.

The component of the Camel model does not have a significant impact on the performance of public sector banks. In the case of Private sector banks, assets quality & management efficiency has a positive effect on performance, whereas capital adequacy, earning capacity & liquidity does not show any significant impact on the performance of private sector banks. Capital adequacy & management efficiency has demonstrated a positive effect on cooperative performance. In contrast, assets quality has shown a negative impact, whereas earning capacity & liquidity does not significantly affect the performance of cooperative banks.

Camel ranking based on each component shows that as per Capital Adequacy indicator, Cooperative banks are Ranked 1st, followed by Public sector banks with 2nd Rank and Private sector banks have got the 3rd Rank. Private banks are ranked first based on Assets quality, followed by Cooperative banks with 2nd Rank & lastly 3rd rank goes to public sector banks. In terms of Management efficiency, Public sector banks are ranked 1st, followed by private sector banks with 2nd rank and cooperative with 3rdrank. Private sector bank is ranked 1st in Earning capacity, followed by public sector banks with 2nd rank and cooperative banks with 3rd rank. The

joint bank has been ranked 1st in terms of liquidity, followed by private sector banks with 2nd rank and public sector banks with 3rd rank.

The final overall first rank is based on 5 dimensions of the Camel model, i.e. Capital adequacy, assets quality, management efficiency, earning capacity, and liquidity goes to Private sector banks, followed by the cooperative banks with second rank and Public sector banks with 3rd rank.

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Structural reforms in Short Term Cooperative Credit in India-Prosperience

Dr.K.Dhevan*

Abstract:

*The passage of the Cooperative Credit Societies Act in 1904, and the enactment of comprehensive Cooperative Societies Act in 1912 marked the beginning of a government policy of active encouragement and promotion of cooperatives in India. The Short Term Cooperative Credit Structure (STCCS) has a federal three-tier structure with PACS being the grass root level institutions, the Central Banks at the District level (DCCBs) and the apex Bank at the State level (SCB). The three-tier structure of cooperatives is the model that has been adopted across the country. The advantages of merging smaller banks to form larger entities has been proved in our country recent past particularly the case of Kerala, Cooperative Bank which have recently got approval from the RBI. This has also been the rationale behind the merger of 12 commercial banks into four banks very recently in April 2020. This is the appropriate time for merging the cooperative banks, especially the upper and middle level cooperative banks across the country, particularly all the states have to made an attempt to bring uniform structural reforms in short term cooperatives in India. As for as Tamil Nadu is concerned, three tier cooperative credit structure may be reformed into one with the name of the **‘Tamil Nadu Cooperative Bank’**, to provide best, innovative and cost-effective banking facilities to members/ customers and enable them to compete with other commercial banks within their localities.*

Key Words:

STCCS, PACS, Merger, Cooperatives

*Assistant Professor, Department of Cooperation, The Gandhigram Rural Institute-Deemed to be University, Gandhigram, Dindigul District, Tamil Nadu

Introduction :

Cooperative credit institutions were established by the British Government during the year 1904 by way of enacting Cooperative Credit Societies Act to provide loans at cheaper rate of interest to their members. The members are real owners as well as customers; they elected their leaders democratically and did all the betterment activities oversights by the bureaucrats. The banks were registered under the respective State Cooperative Societies Act, regulated by the Reserve Bank of India and governed by the Banking Regulation Act of 1949.

Cooperative Movement In India:

The passage of the Cooperative Credit Societies Act in 1904, and the enactment of comprehensive Cooperative Societies Act in 1912 marked the beginning of a government policy of active encouragement and promotion of cooperatives. The Maclagan Committee (1915) advocated that “there should be one cooperative for every village and every village should be covered by a cooperative”. This thinking gained wide acceptance and was adopted as a policy by provincial governments and thereafter, “Cooperation” became a provincial subject in 1919. Besides, respective State Governments enacted separate Cooperative Societies Acts for their states. The number of cooperative societies increased in all parts of the country within a short duration and this became the largest movement in the world. The main aim of Cooperative Credit Societies was to protect the farmers who were indebted to the money lenders against usurious interest charged by providing agricultural credit to the needy people. Later, central cooperative banks were established to regulate, monitor and guide the function of primary cooperative credit societies, thus making a three tier structure of cooperative credit and this was followed all over the country. In the meantime, the cooperative credit delivery system in the country was not stable, notably the rise and fall of functioning of the cooperative credit delivery system. The Task Force cannot but agree with Lord Tennyson that “the old order changeth yielding place to the new, lest one good custom should corrupt the world”. State partnership was recommended by the All India Rural Credit Survey (1954) to enhance the borrowing powers of cooperatives by increasing their capital base. This initiative has, over time, been the single most important cause for bureaucratisation of the system and for the intrusive and pervasive control by the State Governments over all aspects of cooperative functioning. As stated by the Rangarajan Committee on Financial Inclusion (2008), the 1990s saw “an increasing realization of the disruptive effects of intrusive state patronage and politicisation of the cooperatives, especially

financial cooperatives that resulted in poor governance and management and the consequent impairment of their financial health.” The system became borrower-driven, and the concept of mutuality and self-reliance was lost. To overcome the issues related to cooperatives several expert committees were appointed by Governments and gave a lot of suggestions.

Present Cooperative Credit Structure In India :

The Short Term Cooperative Credit Structure (STCCS) has a federal three-tier structure with PACS being the grass root level institutions, the Central Banks at the District level (DCCBs) and the apex Bank at the State level (SCB). The three-tier structure of cooperatives is the model that has been adopted across the country, with some exceptions of states in the North East and other smaller regions. As per the records of the National Federation of State Cooperative Banks (NAFSCOB), 19 states in the country have a three-tier structure while the other 10 states have a two tier structure. Historically there have been valid reasons for the cooperatives to have a three-tier structure. However, in the changing circumstances, there have been significant structural changes in the rural cooperative banking structure worldwide, and it is an appropriate time to review the structure with a view to provide better services to the members of the primary cooperatives.

At present, there are nearly 97,961 Primary Agricultural Cooperative Credit Societies (PACS), 363 District Central Cooperative Banks (DCCB) with 13,233 branches and 32 State Cooperative Banks (SCB) with 992 branches. On an average, there is one PACS for every 8 villages. These societies have a total membership of more than 120 million rural people, making it one of the largest rural financial systems in the world. More than 50 per cent of the rural credit is disbursed by the cooperative banks and Regional Rural Banks.

Need / Emphasized For Restructuring Cooperative Banks :

The Hazari Committee (1975) recommended integration of short term and long term structures. Prof. A. Vaithyanathan Committee (2004) recommended that a superstructure can only be as strong as the base. Recapitalisation and restructuring the intermediate and upper tiers of the cooperative credit structure, without addressing the infirmities at the primary level, would defeat the objectives of reviving and revitalizing the CCS. Primary Agricultural Cooperative Credit Societies (PACS) are the foundation of the short-term cooperative credit structure and much of the weakness of the upper tiers is because of their poor financial health and deficiencies in the way they are organized and managed.

Prakash Bakshi Committee (2013) recommended that the Cooperative Societies Act has provisions for amalgamation of a CCB with two or more such CCBs and assets and liabilities can be transferred from the existing unit to the amalgamated bank. PACS will also have to undergo a structural transformation while working as BCs and aim at providing multiple financial and non-financial services to member farmers and other rural population. These would require various policy measures and initiatives to be undertaken, not only by the STCCS, but also by the concerned state governments, RBI, Central Government and others.

Pioneering Integration of Cooperative Banks – International Scenario

Germany :

The German Cooperative Network which represents around 18.3 million members has adopted a different path. While the diversity of more than 1,000 local banks was maintained, the central banks consolidated them over a period of time. From about 52 central institutions in 1904, they were gradually reduced through consolidation to 4 in 1990, 2 in 2001 and to one central institution in 2016. The logic of consolidation was indicated as “pooling of strategic competence; pooling of operative strength; continuing development of processes and structures which are network oriented, transparent and efficient; realization of revenues and cost synergies; and more efficient allocation of available resources”.

Canada:

For the Desjardins Movement in Quebec, Canada, the consolidation exercise has been slow and gradual. The movement had more than 1,200 caisses populaires (primary cooperatives) in 1998 and these have been through a process of amalgamation and restructuring reduced to a little over 300 cooperatives. The middle tier which had 11 regional federations at the turn of the century has been disbanded and the movement is now operating as a two-tier structure.

Netherlands :

Rabobank restructured its banking structure into a single tier starting January 1, 2016. The bank operated on a two-tier structure, with primaries federating into a national structure. The group had 106 independent primary banks – all licensed by the Central Bank in Netherlands. The federal unit – Rabobank Nederland – worked as a service center for the independent banks being responsible for supervision and other support services.

Pioneering Restructuring of Cooperative Banks – Indian Scenario:

Jharkhand State :

The Government of Jharkhand has taken a decision to have two tier cooperative credit structures. Under this, all eight cooperative banks and their branches will merge and become branches of Jharkhand State Cooperative Bank (JSCB). There will be one management at JSCB. All affiliated LAMPS/PACS will act as service providers.

Merging of Bidar DCCB :

The aim should be the satisfaction of the ultimate borrower at minimum cost. Cost reduction per unit of business can be achieved by integration of short and long-term wings, rationalisation of cooperative structure by removing one of the tiers, exploiting scope and scale of economies available in rural lending. The limitations of the cooperative system such as inability to offer all types of financial services that commercial banks/RRBs do such as money transfer, restricted area of operation and activities, inability to cater to credit needs for all purposes from a single outlet, low level of professionalisation, etc. need to be overcome. Real success comes when cooperatives take full advantage of their ability to have close interface with the clientele.

Jammu And Kashmir:

The present 3-tier structure of banks will be restructured to 2 tier by merging the District Central Cooperative Banks and SCARD Bank and J&K State Cooperative Bank. This bank will be linked to panchayats and a professional board will manage the bank till it is put on track. Government of J&K is considering consolidation and merger of all Cooperative Banks of the union territory. Merger of cooperative banks is highly appreciable as merger will not only salvage these banks from insolvency but also save them from falling prey to local politics in future.

Kerala Model:

The Reserve Bank of India has given its final approval for the formation of 'Kerala Bank', which involves the merger of 13 District Cooperative Banks (DCBs) with Kerala State Cooperative Bank. Eventually, when the completion of the structural change happens, it is expected that Kerala will have a people owned and people managed modern bank that has a significant

market share in the entire banking operation. This bank will be non-exploitative, customer friendly, transparent and fair. As such the cooperative system has about 30 per cent market share in the deposits and loans, but this may significantly increase and hopefully would add other sophisticated financial services to the benefit of the members.

Punjab State:

Punjab Government demanded an early merger of District Central Cooperative Banks (DCCB) into Punjab State Cooperative Bank (PSCB) with a single focus of the restructuring of Cooperative Banking apparatus in the state. To take the welfare steps for the farming community in Punjab there was a dire need of restructuring the Cooperative Banking System for providing cooperative loans to the farmers and the Union Finance Ministry must take up this issue with RBI on a priority basis for early merger of these banks. The much-needed merger of DCCBs into PSCB would help provide services on a much better scale that would add to the prospectus for the welfare of the state farming community.

Uttar Pradesh :

The move to amalgamate DCCBs in Uttar Pradesh into one single entity is taking a positive shape. The merger proposal of 50 District Central Cooperative Banks and a State Cooperative Bank is ready and will soon be sent to the government for approval. With the merger, the 1200 branches will come under one umbrella. The UP State Cooperative Bank is having over 27 branches in the state. About 7500 active PACS (PACS) operating in rural areas of the state will work as extension counters of the new bank.

Cooperative Credit Structure in Tamil Nadu:

Tamil Nadu is the first state in Cooperative movement which plays an important role in the socio economic development of India. The first Cooperative Credit Society in India was started in Thirur, Thiruvallur District, in 1904. The Short Term Cooperative Credit Structure, a federal structure, consists of Primary Agricultural Cooperative Credit Societies at the village level, Central Cooperative Banks at the Inter-mediate level and Tamil Nadu State Apex Cooperative Bank at the State level with 45 branches. These cooperative institutions fulfill the credit requirement of the agrarian population and immediate credit needs of people, especially in rural areas. At present, (2018-19) there are 4,450 Primary Agricultural Cooperative Credit Societies and 23 Central Cooperative Banks functioning

in the State with 876 branches. All the 23 Central Cooperative Banks are functioning in profit and all the banks have been granted banking licenses by the Reserve Bank of India, provide banking services to their customers with Core Banking Solutions (CBS).

Need for structural reform in Tamil Nadu :

The present three tier structure is to be recapitalized into a two tier model i.e.all the Primary Agricultural Cooperative Societies at bottom level and the Tamil Nadu State Apex Cooperative bank at the top level in order to provide services to customers as well as their real owners i.e. members. The intermediate level District Cooperative Banks have to be merged with the Tamil Nadu State Apex Cooperative Bank (TNSCB) as branches of TNSCB so that unnecessary administrative expenditure may cut down and best service can be ensured.

Advantages of restructuring of Cooperative Banks:

1. Large Scale Operation:

The first and foremost advantage of merging banks is ensuring the large scale operation when compared to previous positions. The quantum of deposit and lending of other non-interest income to the bank is enormous. The RBI guidelines are very stringent in banking operations. So, in order to make strong financial base, merging is necessary.

2. Overheads Expenses Minimized :

The overhead expenditure like paying rent for bank premises (particularly as most of the DCCB branches run on rented buildings)will be minimized. This should be followed by cutting down on the expenditure on stationeries and printing, electricity, depreciation on fixed assets in the new model of a two tier credit structure.

3. Non-Performing Assets (NPA) Management

Better NPA management will be ensured. All the banks now-a-days have complied with NPA. The biggest issue faced by the banks is to face NPA and minimize its percentage.

4. Better Asset Liabilities Management

Banks should maintain better Asset Liabilities Management (ALM) practices to avoid mismatches and this is also mandatory as per the

regulatory guidelines. Due to ALM mismatches, liquidity as well as profitability issues will arise, resulting in short term borrowings at higher rate of interest that affect the profitability of the Bank.

5. Implementation of Basel III Accord :

Bank for International Settlements sets a lot of measures to be followed by all the banks to avoid financial risks, particularly Credit, Market and Operational Risks. These are not within the control of banks. On an yearly basis, these risks are on the increasing trend. Therefore, to ensure uniformity in implementation of risk management practices to comply with Basel III accord, the cooperative banks need to adopt these norms. The deadline fixed for complying with minimum requirements has been deferred to 1 January 2023. So, this is the right time to amalgamate these banks.

6. IT enabled better Customer Service :

Already, the state apex bank is providing latest IT enabled banking services like CBS and ATM/Rupay Debit Cards. These cards can be used anywhere in the country on par with that of other commercial banks. The bank is also equipped with facilities for transferring funds using RTGS, NEFT, and IMPS through Mobile apps.

7. Uniformity in implementation of best banking practices, system and procedures :

the DCCBs functioning in the states are not following uniform systems and procedures, particularly organizational structure, Human Resource practices, and so on. These anomalies lead to difference in business performance results. On account of a merger, all branches of the acquiring bank will implement the same systems and procedures and thereby benefits will accrue. Implementation of revised and new systems and procedures is possible across all branches resulting in good results. Implementation of best banking practices is also possible at all branches in a merged environment due to size.

8. Increase in productivity :

the DCCB employees will feel proud to work in a larger bank and will strive to maintain the goodwill and brand image through cooperative work culture of the organization, ultimately resulting in increase of the productivity level of the bank.

Conclusion :

The advantages of merging smaller banks to form larger cooperative entities has been proved in the recent past particularly the case of Kerala, Cooperative Bank which has been recently approved by the RBI. This has also been the rationale behind the merger of 12 commercial banks into four banks very recently in April 2020. This is the appropriate time for merging the cooperative banks, especially the upper and middle level cooperative banks across the country, particularly all the states have to made an attempt to bring uniform structural reforms in the short term cooperatives in India, As for as Tamil Nadu is concerned, three tier cooperative credit structure may be reformed into one with the name of the ‘**Tamil Nadu Cooperative Bank**’, to provide best, innovative and cost-effective banking facilities to members/customers and enable them to compete with other commercial banks within their localities.

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A Comparative Study of Customers Satisfaction & Experience With Reference To selected Cooperative Banks In Goa

Badger Rafikahamad*

Abstract:

A Cooperative is a voluntary association in which people come together to satisfy their wants and their needs, they are formed to meet their shared interests, and all the members have the same goals. By working together, they enjoy the advantage of economies of size. The co-operatives are usually incorporated under state law by filing some articles of incorporation. The co-operative businesses appeared in the early 1800s. One among these is the banking business. It is one of the fastest-growing businesses globally, and the banking sector has gone under various changes like technological advancement. There are different banks like commercial banks, investment banks and co-operative banks. This study is based explicitly on co-operative banks in Goa. These co-operative banks are set up to provide credit to people in rural, urban and semi-urban areas. Customer satisfaction in this study refers to how well the co-operative banks fulfil the customers' wants, needs, and expectations.

This study is conducted in the state of Goa, India. This study specifically examines the level of customers satisfaction and experience in the Bicholim Urban Cooperative Bank and Goa Urban Cooperative Bank Ltd. This study is empirical. The study is based on both primary as well as secondary data. The critical primary data is collected through structured questionnaires from the randomly selected customers of these banks. The collected data is analysed using appropriate techniques in SPSS to arrive at findings. Bicholim Urban Cooperative Bank started in 1987, and today, they serve in 12 different locations across Goa. The Goa Urban Cooperative Bank began in 1964, and today, they do 15 other sites in Goa. In today's competitive

*Student, M.Com Part I, Post-Graduate Department of Commerce, Government College of Arts, Science and Commerce Khandola-Marcela, Goa

world customer is the king, and satisfying the customer is a very challenging task. This study revealed significant insights that the customers in the urban co-operative banks are not satisfied. This study helps us to know where these urban co-operative banks are lacking in providing services to their customers. This study also reveals the factors that affect a customer while choosing the bank. This study demonstrated the main areas where the urban co-operative banks can improve to satisfy the customers. This research will also help the existing customers and potential customers choose a co-operative bank to avail banking services.

Keywords:

Banking, co-operative banks, customer satisfaction, customers experience.

1. Introduction :

A Cooperative is a voluntary association controlled by its members, and the benefits from the working of the business are equally distributed. Co-operatives are like other businesses; they follow business practices. Co-operatives are distinct from that of other businesses. This difference can be seen in their objectives, control and how the benefits derived from the business's work are distributed among its members. (James J. Wadsworth, 2016). By working together in a co-operative, members benefit from enjoying the advantage of economies of size. The members in co-operatives have the same interest and the same goals. Some types of co-operatives are producer co-operatives, consumer co-operatives, marketing co-operatives, co-operative credit societies, marketing co-operatives, housing co-operatives, banking co-operatives, co-operative farming societies, student co-operatives, dairy co-operatives. In the 1800s, co-operatives in Britain appeared like a tool that helped to deal with the depressed economic and social conditions of industrialisation and struggles with Napoleon. The farmers of the United States started converting the milk into cheese in various places, including CT, Lake Mills, Goshen and WI. (James J. Wadsworth, 2016). (Rathod, 2004). One of the significant developments in the co-operative movement was the Industrial and Provident Societies Act sanction in England in the year 1852. Before this act was passed, the Friendly Societies Act of 1834 and 1846 were used to control and regulate co-operatives' registration. Co-operative banks are voluntary associations set up in the rural and the urban regions. The services provided by these banks include services like saving accounts, current accounts, locker facilities, etc. (Soyeliya Usha L., 2013). Co-operative banks belong to their members, and today, these banks play a vital role in delivering their

services to the local people. These are the organisations owned and operated by a group of people with common interests, goals, and objectives. (S.J. Jadhav, 2012). In Goa, there were 4 Urban Cooperative banks. (Directorate of Planning, Statistics and Evaluation Porvorim-Goa, 2018-2019). In 2020-2021 there are 2 Urban Cooperative banks in Goa.

1.1 Types of Co-operative Banks in India :

There are 4 types of co-operative banks in India:

1. Land development banks: These are the banks designed to encounter the credit requirement of the farmers. The National Bank for Agriculture and Rural Development is the authority that supervises the land and development banks. These banks raise their funds in the form of debentures pledged by the State and Central government. These banks do not accept public deposits.
2. Urban Cooperative Banks: These banks are the banks situated either in urban or semi-urban areas. These banks accept public deposits and lend money to small businesses and borrowers.
3. Central Cooperative Banks: The co-operative central banks are the banks that are located at the district headquarters or a town of the district. These banks provide financial facilities to the members within the borrowing capacity of society.
4. State Cooperative Banks: These banks directly do not lend money to the farmers but instead to primary co-operative societies and co-operative central banks. These banks obtain funds for operation in deposits, share capital, loans and overdrafts from RBI. (Bhavna Sharma, 2020)

1.2 Customer Profiling :

A Customer is nothing but a person who holds the account in that bank. The customer opens their bank account to avail of many services, including keeping their money safe and earning interest on their savings; they can also benefit from the loan. The bank should provide quality services to the customers and should not focus only on giving quantity services. Each customer has his own needs; because he creates a bank account, it is the responsibility of the bank to satisfy the customer's needs. It should also be remembered that all the customers do not require all the banks' services. The customer in the co-operative bank expects the individual attention for which the co-operative banks are known. Customer includes people of high-income, middle-income, and low-income groups, including educated and uneducated people.

1.3 Factors responsible for choosing cooperative banks :

This refers to the factors which influence a person in choosing a bank. These are some of the main factors which the banks should consider to improve their performance. This will help them meet the requirements of the existing customers in their banks and help them attract potential customers to create an account in their bank. This competitive world demands the banking sector to examine and work on attracting customers carefully. With the change in the economic environment, the customer's demands are also increasing. The banks' good quality services help them retain the existing customers and attract potential customers, who can be drawn with word-of-mouth publicity, which will help the bank increase their profitability.

1.4 Customer expectation and the satisfaction level :

Customer expectation refers to what type of services the customers are expecting from the banks, and satisfaction level refers to how well the customers are satisfied or not by availing of the services of the banks. The survival of the bank depends on how well its customers are satisfied. The satisfaction level is where customer expectations meet their current real situation. The expectation of the people will vary from individual to individual. The expectations differ from their prior experience and their personal needs and want. The success of any bank lies in the hands of their satisfied customers. If the bank satisfies its customers, it will help them to maximise their profitability. (Dsouza et.al,2018).

2. Review of Literature :

Baque et al. (2021) found out which factor significantly impact customer satisfaction. The nature of the study was empirical. This research was based on primary data, and the sample size was 21914 respondents, and the respondents were customers from 142 different co-operative banks in France. The study revealed that perceived quality's contribution to customer satisfaction was more than perceived value. Gupta (2020) studied whether the customers of co-operative banks were satisfied or not concerning the services provided by co-operative banks. The research was conducted using both primary & secondary data. Primary data in this study was collected using questionnaires from 100 individuals using a simple random sampling method. Secondary data in this study was collected using magazines, dissertations, registers, journals, and various textbooks. The findings revealed that most of the customers of co-operative banks were

satisfied, and maximum customers were satisfied because of bank staff attitude. Thomas and Biju T. (2020) attempted to compare the perceived service quality among the customers of commercial and co-operative banks of the state; for this study, primary data was used. In primary data, 900 respondents were selected. This research revealed that co-operative banks lag behind commercial banks in many aspects.

Bhatt and Bhatt (2019) studied the ethical practices followed by co-operative banks and checked unhidden ethical practices that the co-operative banks follow at Jamnagar. In this study, primary data was collected using the questionnaire method. The respondents were 200, which consisted of staff members and customers of co-operative banks. This study revealed that the bank's investment pattern is good, and banks are doing their business ethically. In their research, Wankhede and Bhilawadikar (2019) focused on customer satisfaction with products offered by co-operative banks. In this research, in-depth interviews were conducted along with a structured questionnaire. The size of the sample was 500 respondents. This research revealed that the easy availability of loans and other credit facilities were the main factors that affect customers' satisfaction. Joshi (2019) studied the customer's perception of the services offered by the public, private and co-operative banks. This research was based on primary and secondary data. Data were collected by survey method from 1129 respondents and financial statements of 15 banks. The findings of this study revealed that there was a service gap existing. Customers of the banks had low perceptions, and their expectations were high.

Dsouza et al. (2018) compared the customers of both private and public sector banks to use the demographic variables and measured customer satisfaction. The data for this study were reflected using a structured questionnaire. The sample consisted of 200 respondents. The findings of this study disclosed that the customers of both types of banks were not satisfied by the services those banks provided. There was no significant difference between demographic variables of customers of both the public and private sector banks. Idzik (2018) investigated the customer service quality at the co-operative banks in Poland and the extent of the customer-oriented approach of selling banking services based on the relational model. The researcher in the study used primary data. In primary data, the mystery shopping method was used. Findings revealed that customer service level at the co-operative banks was evaluated as low in comparison with the results achieved by the commercial banks. Singh et al. (2017) studied customer

relationship management its impact on customer satisfaction. The research was descriptive, and data was collected using a primary source. In primary data, 200 respondents were selected. The Findings revealed that customers were satisfied, and it is essential to adopt modern technology and CRM. The more effectively a business can use information about its customers to meet their demands, it will be more profitable for an organisation.

Degefa (2017) tried to find out the satisfaction of customers in the co-operative banks of Oromia. In this study, primary data was used, which was collected using questionnaires, and the sample consisted of 100 respondents. For this study, simple random sampling was used. The study's findings revealed satisfied customers but some weak areas where banks should focus more. Tekilu (2017) studied customers satisfaction with relation to the services provided by the co-operative banks of Oromia. The research was descriptive, and data was collected from primary sources. In this research, a questionnaire method was used. The findings revealed a positive relationship between service quality and customer satisfaction. Aurora (2016) studied customer relationship management during the XXI Century in European Cooperative banks. The study is conceptual. The researcher used a secondary source of data for the analysis. Findings of the study revealed that a properly implemented CRM strategy helps the company offer better service and develop more profound relationships with customers. To maximise the duration and quality of the relationship with the customer, companies must assure a strong performance in how they interact across the whole customer lifecycle.

Sharma (2016) explored the customer satisfaction level in urban co-operative banks. Primary data was used in conducting this research. The structured questionnaires were distributed to 200 respondents. This study revealed that customers were satisfied with the services provided by the banks, but there are some negative gaps where improvement is to be made in providing services. Kalpadakis and Spais (2015) found out the condition of customers satisfaction and service quality provided by banks in recession. The research was conducted by using primary data. The data were collected using structured questionnaires that the customers of around 150 banks answered from Crete. The findings revealed that customer satisfaction and loyalty might be successfully predicted through ZOT of the Bank's services, which will help the bank increase its profitability during an economic recession. Velanganni (2014) compared co-operative and nationalised banks' performance to check if there is any service quality

gap between both types of banks. This research was based on primary data, and in this study, a questionnaire method was used. The data was collected from 450 respondents. The findings revealed that customers in co-operative banks are comparatively more satisfied than the other two banks. Customer satisfaction increases with improved technology, improved people, and suitable types of services rendered by banks.

Kalpadakis A and Spais G (2014) studied the zone of tolerance of bank services' performance level of customer satisfaction. They examined which of the service quality dimensions of the adapted SERVQUAL model contributed significantly to overall customer satisfaction and loyalty. The researcher has used primary data, and the sample consisted of 150 respondents. The correlation and regression analysis was the technique used in this study. The study's findings revealed that the ZOT of a bank's services performance might successfully predict customer loyalty, contribute substantially to the market share, and increase banks' financial performance. Soyelia (2013) studied co-operative banks in India regarding their lending practices and performance. In the research, primary data and secondary data were used. Data were collected using questionnaires, interview methods, and the bank's financial statements. The findings revealed that most customers took more than one type of loan, and the services that banks provided and the services were satisfactory. Gupta and Jain (2012) studied the lending practices of co-operative banks in India to measure and compare the efficiency of co-operative banks in India. The researcher has used both primary and secondary data sources primary data sample was 200 respondents. To analyse the data researcher has used descriptive statistics. Findings revealed that maximum customers were satisfied with the easy procedure. The instalment facilities Jadhav et al. (2012) studied customers' expectations of co-operative ban organisations and identified the customer's satisfaction level. This research is descriptive. The research has used both primary and secondary data. The sample for this study consisted of 100 respondents. It was collected using structured questionnaires, and simple random sampling was used. And some research papers were used for reference. Findings revealed that co-operative banks employees' attitude was not sustainable and no proper hospitality is maintained to common customers. Therefore, customers are not fully satisfied. Ismaila et al. n.d. studied the satisfaction level of the members of interest and non-interest co-operative societies. Primary data was used in the form of a survey method in this study, and the data was collected from the members of different co-operative societies. Responses were collected from 180 members. The findings of this research revealed that there was a gap between service quality and satisfaction level. Parasuraman et al. (1985) tried to find out the

key attributes of the service quality and know what customers consider the critical points while availing the services. This research is based on primary data. The data was collected using interviews. This research revealed gaps on the marketers' side when considering customers' quality perception; four critical gaps exist.

3. Research Gap :

After understanding the literature review, it was found that 66.66% of research papers were studied to find out the customer's satisfaction concerning the services provided by different types of banks. Little work seems to be done on finding customer satisfaction in urban co-operative banks in Goa. So, the current study has been conducted in Goa. This study focuses on finding customer satisfaction in Goa's two central urban co-operative banks: Bicholim Urban Cooperative bank and Goa Urban Cooperative bank.

4. Research Problem :

To date, research on finding customer satisfaction in the urban co-operative banks in Goa was rarely done. The proposed study is conducted to determine whether the customers in urban co-operative banks are satisfied. In recent times, the main factor affecting the growth of co-operative banks is customer satisfaction. If the customers of any co-operative banks are satisfied, it will be beneficial for that co-operative bank and help them earn more profit. The study focuses on finding customer satisfaction with the services provided by the urban co-operative banks. This study will be helpful for both urban co-operative banks and the other co-operative banks to find out where they are lacking in providing services. This study will also help the banks determine the areas they need to focus on to satisfy the customers and survive in the market. And this study will also be helpful for those who wish to study customer satisfaction in co-operative banks in Goa.

5. Research Questions :

- A. What is the level of customer satisfaction in both the urban co-operative banks?
- B. What are the factors that influence the customer in choosing the bank?

6. Objectives of the Study :

- A. To understand the level of customer satisfaction in both urban co-operative banks.

B. To find out factors that influence customers in choosing the bank.

7. Research Methodology :

The present research aims to determine the customer satisfaction among Bicholim Urban Cooperative bank and Goa Urban Cooperative bank in Goa. In this research, primary data was used, and the survey was done in November 2021. Using structured questionnaires, the data was collected from business people, students, employed people, older adults, and homemakers. The sample size was 100 respondents, but only 91 responses were received. The questionnaires were divided into three sections. The first part of the questionnaire was about the domestic profile of the customers. The second part of the questionnaire was about the customers’ factors while choosing the bank. Under this, the respondents were provided with 16 statements. The scale used here was the Likert scale where one indicates strongly disagree, 2 indicates disagree, 3 indicates neutral, 4 indicates agree and 5 means strongly agree. The third section of the questionnaire was about the satisfaction level of customers, and here they were provided with 17 statements. They were asked to indicate based on their expectations from the banks and their experience with the bank. The data were analysed using SPSS. The Chi-square test determines the association between Goa Urban Cooperative bank customers and Bicholim Urban Cooperative bank concerning their demographic variables. Factor Analysis was used to find out factors considered while choosing the bank. And to find out the level of customer satisfaction Paired Sample t-test was used.

8. Analysis And Findings :

Table 1: Demographic Profile of Customers (N = 91)

Demographic variables		Choice of Bank				Total		Chi-square (p)
		Goa Urban Cooperative bank		Bicholim Urban Cooperative bank				
		#	%	#	%	#	%	
Age	18-28	31	56.36	24	43.63	55	60.43	.506 (.926)
	29-38	10	50	10	50	20	21.97	
	39-48	4	50	4	50	8	8.79	
	49 and above	5	62.5	3	37.5	8	8.79	
Education	SSC	7	36.84	12	63.15	19	20.87	8.179 (0.83)
	HSSC	8	42.10	11	57.89	19	20.87	
	Graduation	25	62.5	15	37.5	40	43.95	
	Post-Graduation	7	87.5	1	12.5	8	8.79	
	Others	3	60	2	40	5	5.49	

Marital Status	Married	20	55.55	16	44.44	36	39.56	.009 (1.000)
	Unmarried	30	54.54	25	45.45	55	60.43	
Occupation	Salaried	14	48.27	15	51.72	29	31.86	4.011 (.431)
	Businessmen	7	63.63	4	36.36	11	12.08	
	Government Servant	0	0	2	100	2	2.19	
	Student	21	56.75	16	43.24	37	40.65	
	Others	8	66.66	4	33.33	12	13.18	
Annual Income	Below Rs. 1 lakh	39	54.16	33	45.83	72	79.12	1.514 (.593)
	Rs. 1 lakh to Rs. 5 lakhs	11	61.11	7	38.88	18	19.78	
	Above Rs. 5 lakh	0	0	1	100	1	1.09	
Type of Account	Saving account	43	58.10	31	41.89	74	81.31	9.819 (.027)
	Current account	5	83.33	1	16.66	6	6.59	
	Fixed deposit	1	25	3	75	4	4.39	
	Loan	1	50	1	50	2	2.19	
	Others	0	0	5	100	5	5.49	

Source: Author's Compilation Based On Primary Data.

Demographic profiling of customers of Goa Urban Cooperative Bank And Bicholim Urban Cooperative Bank

Ho: There is no significant association that exists between customers of Goa Urban Cooperative bank and Bicholim Urban Cooperative bank concerning age, education, marital status, occupation, annual income and type of account.

H₁: There is a significant association that exists between customers of Goa Urban Cooperative bank and Bicholim Urban Cooperative bank concerning age, education, marital status, occupation, annual income, and type of account.

Table 1 shows the demographic profile of customers in Goa Urban Cooperative bank and Bicholim Urban Cooperative bank. The demographic variables considered for this research include age, education, marital status, occupation, annual income, and type of bank account. This data has been analysed using Chi-square tests to know the effect of these variables on the choices of two types of urban co-operative banks. When a p-value is 0.05, it indicates a significant difference between the selection of both urban co-operative banks. Except for the type of account, all other demographic variables (age, education, marital status, occupation and annual income) showed no significant association when selecting the kind of bank by the customers.

Concerning the type of account, there is a significant association between the choice of banks and type of account (Chi-square=9.819, p<0.05). The difference that can be seen concerning bank selection and variety of accounts in this study is customers in Goa Urban Cooperative bank have more saving accounts. In contrast, Bicholim Urban Cooperative bank customers have more fixed deposit accounts than Goa Urban Cooperative bank. Hence, we can say that the type of bank account impacts the choice of bank.

Table 2: Factors Considered While Choosing The Bank

FACTORS (overall a=0.880, N=16)	F1	F2	F3
F1: Value Added Services			
The bank has good e-banking facilities	.729		
The bank has good credit and debit card facilities	.739		
The bank has a convenient ATM location	.757		
It was easy in opening an account	.461		
The bank has updated facilities	.518		
F2: Accessibility			
The interest on repayment of the loan is low.		.468	
The branch location is very convenient.		.711	
The interest on deposits is high.		.760	
The bank has good a public image.		.404	
Convenient bank location		.621	
Word of mouth		.468	
F3: Convenience			
It is easy in getting a loan.			.454
Employees are neatly dressed.			.596
The staff is accommodating.			.736
Good parking facilities			.477
The bank is neat and clean.			.459
KMO Measure of Sampling Adequacy			.804
Eigen Value	5.949	1.944	1.577
Variance explained	15.447	23.617	8.171
Cronbach's alpha (a)	0.810	0.790	0.766
Total Variance Explained			47.235
Number of items	5	6	5

Source: Author's compilation based on primary data.

Factors considered while choosing Goa Urban Cooperative Bank or bicholim urban cooperative bank :

table 2 shows the factors customers consider while selecting a bank.

This is done using factor analysis. This technique helps to reduce a large number of variables into a few factors. The factor analysis was used to determine the customers' factors in selecting the co-operative banks. The study was carried out on 16 variables, and then they were grouped into several elements. Table 2 shows the results of the same. The variables were classified into 3 factors using the Eigenvalue. The resulting elements were F1: Value Added Services, F2: Accessibility, and F3: Convenience. The overall reliability of 16 variables gave a good value which is considered acceptable ($\alpha=0.880>0.7$). Individual factor reliability was also acceptable, F1: Value Added Services is 0.810, F2: Accessibility is 0.790 and F3: Convenience is 0.766. KMO measure of sampling adequacy showed 0.804, indicating that data are sufficient for exploratory factor analysis. The three factors explained 47.235% of the total variance. The main factor which is considered while choosing the bank are Value Added Services, and it includes five variables and is (the bank has good e-banking facilities, the bank has sound credit card and debit card facilities, the bank has convenient ATM location, it was accessible in opening an account and the bank has updated facilities).

Table 3: Satisfaction Level of Customers

Sr No.	Variables	Mean		Mean Diff	T Stat	Sig Value (2-Tailed)
		Expectation	Experience			
1	Whenever a problem arises, the bank will show interest and solve that issue	3.71	3.29	(.429)	2.905	.005
2	A safe feeling in doing any transaction and dealing	3.78	3.58	(.198)	1.413	.161
3	Bank employees are sympathetic	3.77	3.27	(.495)	3.487	.001
4	Bank employees are neatly dressed	3.89	3.66	(.231)	1.764	.081
5	Modern equipment availability	3.91	3.37	(.538)	3.688	.000
6	Banks will give individual attention to customers	3.86	3.43	(.429)	2.955	.004
7	Easy in getting loan facilities	3.87	3.34	(.527)	3.838	.000
8	Employees will answer phone calls	3.93	3.45	(.484)	3.058	.003

9	Employees give accurate and reliable information	3.75	3.58	(.165)	1.224	.224
10	The bank provides good ATM service	3.71	3.21	(.505)	3.461	.001
11	The internet services of the bank are widely spread	3.84	3.13	(.703)	5.214	.000
12	Employees are always willing to help customers	3.80	3.41	(.396)	2.833	.006
13	Employees in the banks have the proper knowledge to solve customer issues	3.97	3.52	(.451)	3.654	.000
14	Employees of the bank are courteous	3.78	3.24	(.538)	4.331	.000
15	The bank provides good e-banking services	3.76	3.09	(.670)	4.765	.000
16	Services provided by the banks are rapid	3.75	3.44	(.308)	2.192	.031
17	The bank is well maintained	3.87	3.85	(.022)	.185	.854

Source: Authors own compilation based on primary data.

Factors affecting satisfaction level of customers :

Table 3 depicts the satisfaction level of customers. This is done using Paired Sample. The paired sample is used to compare the mean of two variables.

H₀: There is no significant difference in the expectation and experiences of the customers.

H₁: There is a substantial difference in the expectation and experiences of the customers.

P value for whenever problem will arise bank will show interest and solve that issue is 0.005, P value for bank employees are neatly dressed is 0.001, P value for modern equipment availability that is .000, P value for bank will give individual attention to customers is .004, P value for easy in getting loan facilities that is .000, P value of employees will answer phone calls is .003, P value for good ATM service is provided by the bank is .001, P value for the interest services of the bank are widely spread is .000, P value for employees are always willing to help customers is .006, P value of employees in bank have proper knowledge to solve customer issues is .000, P value of employees of the bank are courteous is .000, P value of good e-banking services are provided by the bank is .000 and P value of services offered by the banks are very quick is .031, which are less than 0.05 at 5% significance level hence we reject the null hypothesis and accept alternate theory and conclude there is a significant difference in customer expectation

and customer experience. By looking at the mean difference, it can be concluded that customers are not satisfied with the services provided by the banks.

The P-value of safe feeling in doing any transaction and dealing is .161, P-value of bank employees are neatly dressed is .081, P-value of employees gives accurate and reliable information is .224 and P-value of the bank is well maintained is .854, which are more than 0.05 at 5% significance level hence we will fail to reject the null hypothesis which indicates that there is no significant difference between expectation and experience of customers with regards to the above statements.

9. Conclusion:

The banking industry is one of the fastest-growing industries, and Urban Cooperative banking is an emerging area. For this research, two of the leading Urban Cooperative banks from the state of Goa were selected, and those are Goa Urban Cooperative bank and Bicholim Urban Cooperative bank. This study was conducted to determine customer satisfaction in the Urban Cooperative banks. Their growth depends on customer satisfaction. The customer's experience regarding the services provided by the banks should meet their expectations. In Goa, while choosing Goa Urban Cooperative bank and Bicholim Urban Cooperative bank, the demographic variables like age, education, marital status, occupation and annual income didn't affect customers; still, concerning the type of account, there is a significant association with the choice of bank. The customers in Goa Urban Cooperative bank have held more saving accounts when compared to customers of Bicholim Urban Cooperative bank customers, and Bicholim Urban Cooperative bank customers hold more fixed deposits than the customers of Goa Urban Cooperative bank. When the factors are considered while choosing the bank, the three factors that affect the customer are (Value Added Services, Accessibility and Convenience). The factor that affects the customers the most while choosing a bank is Value Added Services. So, both the Urban Cooperative banks should focus more on providing these services to survive and grow in the market. This study shows that the customers of both the co-operative banks are not satisfied. Hence it can be concluded that both the co-operative banks are not successful in providing services. Their customers expected more from them, but the banks failed to meet their customer expectations.

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Strategies for Strengthening Cooperative Credit Societies: A Study on T. Palayam Primary Agricultural Cooperative Credit Society Ltd. Puducherry

B. Kanimozhi*, Dr. C. Pitchai**

Abstract :

Primary agricultural cooperative credit societies are the village-level organisation in a two-tier cooperative credit structure in the Union Territory of Puducherry offering credit facilities to their members. It has the great potential to serve society and have possibilities for social change. Even though it has encountered several problems, still working for the improvement of the society and its members, also the contributions provided by the cooperatives at the time crises are inevitable. At the time of evolution, the cooperative credit sector was considered the only vital aspect to protect the agriculture and agriculturalist from the worse situations and created a more significant impact on the economy.

It has held an important place in the Indian financial system contributing a significant part to the Indian economy. So this paper is going to examine the importance of primary agricultural cooperative credit societies in the Union Territory of Puducherry and identify the strategies for strengthening cooperative credit societies in Puducherry. The research result will bring effective methods for the upliftment of the cooperative credit societies in Puducherry; new business ideas will support the cooperatives to be more viable and efficient.

Keywords:

PACS, Strategies, Strengthen, Credit Cooperatives.

*Research Scholar, Department of Cooperation, The Gandhigram Rural Institute (Deemed to be University), Tamil Nadu *Professor, Department of Cooperation, The Gandhigram Rural Institute (Deemed to be University) Tamil Nadu

Introduction :

Primary agricultural cooperative credit societies are the village-level organisation in a two-tier cooperative credit structure in the Union Territory of Puducherry offering credit facilities. It has the great potential to serve society and have possibilities for social change. Even though it has encountered several problems, still working for the improvement of the society and its members, also the contributions provided by the cooperatives at the time of crisis are inevitable. At the time of evolution, the cooperative credit sector was considered the only essential aspect to protect the agriculture and agriculturalist from the worse situations and created a more significant impact on the economy. It has held a critical place in the Indian financial system, contributing substantially to the Indian economy.

Background of the PACS :

The history of cooperative credit societies started in the early '90s in India because, in India most people based on agriculture as their preliminary way of earning income as their livelihood. Agriculture is the backbone of our Indian economy; most farmers got affected due to natural calamities like drought, floods, and problems created by the moneylenders and landlords. To avert those problems, Sir Fredrick Nicholson suggested find raiffession model in India. As a result, primary agricultural credit cooperative societies (PACS) started in India as a grassroots level organisation. It is the first foundation stone in the cooperative movement and banking structure (Abdul Kuddus K.A, 2019)

Different types of cooperative institutions are functioning in India, like agriculture and non-agricultural cooperatives, further divided into short-term agricultural credit cooperatives and long-term agricultural credit cooperatives. In the short term agriculture, cooperatives have three-tier federal structures; As per NAFSCOB data, 95,509 PACS are functioning in India, among that 65,109 societies are operating till now all over the north to south and east to west in India. PACS is the village-level miniature bank, DCCB is the District Central Cooperative Bank operating at the district level, and SCB is the state-level federal bank. Still, in Union Territory, this is a two tier structure having only PACS and State Cooperative Bank. Because the Union Territory of Pondicherry, named Puducherry, comprises 4coastal regions, namely Puducherry, Karaikal, Mahe, and Yanam, spread over the three different states in the country. Moreover, it has 53 primary agricultural cooperative credit societies that function all over the four

regions, out of which 15 societies are working viably. The main crop of this territory is paddy and other crops also cultivated by the farmers.

Profile of the Selected PACS :

T. Palayam Primary Agricultural Cooperative Credit Society was started on June 20, 1956, and activities began from December 19, 1956, with 27 members, and currently functioning with “A” class 1797 members and 3606 “C” class members in the Abishegapakkam village, Ariyankuppam Commune in the Union Territory of Puducherry. In the past, the T. PACS has functioned well by fully meeting their agricultural member's needs. At present, personal jewel loans up to Rs.8.00 lakh are offered to their members. In addition, it has been providing consumer loans of up to Rs.1.00 lakh to government employees and employees working in cooperative societies since July 5, 2017, to meet the loan requirements of the above employees. This society receives tractors with government subsidies and provides work to the members. T. Palayam PACS also received awards from Former President of India Mr. Pranab Mukherjee, and has been honoured with a shield by the National Cooperative Development Corporation for the outstanding service award 2012, the Shield for outstanding services in the year 2012, 2013, and 2014 by the Government of Puducherry received by them from the Chief Minister of Puducherry, and the Best Association for the year 2016-2017 presented by the Minister of Cooperatives, Government of Puducherry.

About the Loans and Deposits, the society got permission from Puducherry Cooperative Department to start their banking services from November 17, 1993. Through this, deposits are received from the public and members. The villagers become accustomed to saving and meeting their needs by opening savings accounts. This society has been providing crop loans to the farmers under the society's jurisdiction through crop credit cards since 2001 as crop loans. In addition, they have been giving priority to small and micro-entrepreneurs for the members below the poverty line and providing loans of low rate interest jewel loans to farmers. Similarly, jewel loans are being extended to non-agricultural members.

Types of Loan Issued By The PACS :

1. Paddy Crop Loan (KCC)
2. Low interest non-agricultural jewel loan
3. Women's Self Help Group Loan (SHG)

4. Consumer Loan for Government and Government employees
5. Weaker Section Loan

Objectives of the Study :

- To examine the functions of primary agricultural cooperatives credit societies in the Union Territory of Puducherry.
- To identify the strategies for strengthening agricultural cooperative credit societies in the Union Territory of Puducherry.

Methodology :

The present study has the objective of examining and identifying the strategies for strengthening cooperative credit societies concerning PACS, particularly in the union territory of Puducherry. For this purpose, both primary data and secondary data were collected from the T. Palayam PACS. Primary data were collected from the members of the cooperative societies through a structured interview schedule, and the secondary data were collected from the books and records of the PACS, audit and annual reports of the cooperatives, journals, and other publications.

Problems And Challenges of Select Society :

The T. Palayam PACS is one of the best societies in the Puducherry region, and it secured "B" in the audit classification during the study period. Even though, T. Palayam PACS received Best Service awards. Still, this society encountered many problems and challenges by many internal and external factors. These includes limited business operations, low number of members, lack of transparency, political interference, climate change in policies, technological upgradation, etc.

Minimum Lending Practices :

This society is only providing limited number of loans to their members. There has been no agricultural crop loan for members for the past five years, and there is no proper issuing of weaker section loans, consumer loans, and self-help group loan. Non-Agri. jewel loan is the only loan provided by the society for the past five years of business operation.

The table given below shows the types of loans issued by the T.Palayam PACS. During the study period, in 2015-2016 only the society issued crop loans and no issue of SHG loan. The select PACS continuously doing cash

credit facilities and only issued weaker section loans and consumer loans from 2017-2018. The members of the society are expecting agricultural loan and agricultural jewel loan.

Table 1 : Types of loan issued by T. Palayam PACS

Year	Types of Loan				
	KCC	Cash Credit (Jewel Loan)	Weaker Section Loan	Consumer Loan	Self Help Group Loan
2015-2016	15,26,400	6,39,38,000	-	-	-
2016-2017	-	64,84,500	-	-	-
2017-2018	-	7,57,92,000	5,84,894	76,00,000	-
2018-2019	-	7,67,51,000	2,55,000	35,50,000	-
2019-2020	-	8,69,90,000	40,000	1,91,50,000	-

(Source: Compiled from the Audit Report of the Society)

Crop Loan:

Crop loan is the significant loan issued by the PACS all over India. Initially, the T.Palayam issued crop loans to their members. Afterward, they stopped this service to their members. During the study period, there was no issue of KCC to their member. Based on the member respondents, 100 percent of the total respondents said “yes” to issue the agricultural loan from society. They are willing to get the crop loan. So, society should arrange crop loan facilities for their members.

No Business Diversification :

It has only a limited number of business operations in the society. T.Palayam PACS have been no diversified business activities carried out by society during the study period. The society only provides tractor facilities to their members at the time of cultivation; this is not enough for the society to meet the requirements of its members.

The above table indicates that members are ready to avail agricultural inputs and other aid services from society. According to the table respondents are expecting all the diversified services from the society.

Table 2 : Members Expectation On Diversified Services

Members Expectations on Agricultural inputs and other services	Yes	No
Agricultural Inputs	20	0
Percentage %	100	0
Godown	18	3
Percentage %	85	16
Technological aids	9	11
Percentage %	45	55
Common Service Centre	19	1
Percentage %	95	5
Agri Clinic	17	3
Percentage %	85	15

(Source: Primary Data)

Lack of Technologies :

There is no technical-oriented service provided to their members. This society has only one computer that is used for office purpose.

Table 3 :Members Expectation on Technology Adoption

Members Expectation Technology Adoption	Yes	No
ATM	20	0
Percentage %	100	0
SMS	17	3
Percentage %	85	16
Online Banking	9	11
Percentage %	45	55

(Source: Primary Data)

It indicates the member's expectations on technological adoption in the society, and there is 100% of acceptance for the ATM facility, 85% of them ready to accept the SMS option and for online banking services, and 55% of them not accepted to bring online transaction because of illiterate. So, they do not know to use technology.

Loan Waiving :

Loan waiver is one of the significant problems in all the PACS in Puducherry; there was no KCC loan available to the members during the study period. This society has stopped providing crop loans to members from 2016 to 2017 because of the waiving loan by the respective government. Still, the impact is there; members are always looking for loan waiving it affects the recovery of the society. Nevertheless, members are ready to avail themselves of crop loans from society. However, the main motto of the PACS is to provide credit to the members for agriculture and allied activities to their members.

Higher Business Competition :

Nowadays, competition is increasing due to rapid growth in the banking sector. Private sector banks, public sector, regional rural banks, and other financial organisations offer credit facilities with same rate of interest to farmers and other general public, so here the sustainability in this field will be at risk.

Lack of Transparency :

Cooperatives are the democratic organisation, and transparency on the working of the PACS is mandatory as per the principles and values of cooperation. The following table shows the respondents' opinions on transparency in the select PACS.

Table 4 : Members opinion on transparency in T.Palayam PACS

Transparency among PACS	Yes	No
Transparency in the maintenance of accounts	18	2
Percentage %	90	10
Transparency in management	15	5
Percentage %	75	25
Transparency in sanctioning of loans	18	2
Percentage %	90	10

(Source: Primary Data)

The above table shows that among the total respondents,80% opined that there is transparency in the maintenance of accounts in the T.Palayam PACS, and the remaining 10% are be for better improvement. When it comes to transparency among management there is 25% said the no transparency in the society management process and 90% of transparency in sanctioning the loan.

Strategies to Strengthen Select PACS :

More number of Loans :

Initially, T.Palayam PACS has given different types of loans to its members. However, now it has only cash credit for jewel loans, which is the only business activity majorly carried out by the society with two more additional loans. Compared to other PACS functioning in other states of India, they provide varieties of credit provisions to their members and the public. This society should increase the distinct kinds of issuing credit also strength the society viably.

Attract more number of Members:

These days business activities are changing day by day; after globalisation, the Indian banking system drastically changed. The number of Nationalised Banks, Private Banks, RRBs and finance groups have increased and offered crop loans and other similar kinds of loans to the members and public. When this society wants to continue in the field, it should adopt strategies like offering a low rate of interest, distinct kinds of loans, and computer and technology-based services that will attract more members soon.

Diversified Business Activities :

Diversification and innovative business practices will continue to strengthen society in the long run. However, in T. Palayam PACS, they already put an end to providing agricultural inputs like seed, fertilizers, and other agricultural-related equipment's including crop loans, to their members. If they restart those services, including add-on services like a direct sale with crop loan, agriculture extension centre services, and fair price shops, it will strengthen the society at the base level.

Technological Updation :

As mentioned above, this society has only a few computers to administer society. Still, T. Palayam PACS focuses on manual recordings of the data. Following traditional methods, no other technological-oriented up-gradation need is critical in this upcoming digital scenario. Delivering SMS facility, ATM provision, and other digital transactions will grab the member's attention.

Education And Training :

In the cooperative sector, we have a principle called "Education, Training,

and Information" to indicate how important this education and training is for the development of the cooperative sector. In this society, the staff initially attended some cooperative oriented training programme at the times of recruitment, but things are changed now vastly. The modern economy gives lots of competition, especially in cooperatives. Space to swap and bring the change into the management process and provide skill and technology-oriented training will help the staff improve professionalism in the business.

Increase Competitiveness :

This society could take competitiveness as a chance to achieve the goal and strengthen the society. It will pave a path for innovation and diversification into business activities, and healthy competition will bring fruitful results.

Proper Utilization of Funds :

Allocation of funds to various aspects is a process; societies are a common culture in cooperatives. T.Palayam PACS also allocates funds to the cooperative education fund, common good fund, building fund, and other kinds of the fund, but this is to be reconsidered by society and introduced new kinds of funds to improve the PACS present position.

Reassess the credit needs of Members And Policies :

In this emerging world, trends are not in sustaining mode; every second got changing. Likewise, the need for credit for members also changed according to their social and economic factors. So, the concerned society and the government should reassess the credit needs of their members and credit policy, which will help society become viable.

Conclusion :

Recently the government of India, consistently focusing on the agriculture sector, also set a target for doubling farmers' income by 2022 (C, 2019) Farmers who do not have sufficient finance to do agriculture occasionally or continuously, depending credit from the private moneylenders and landlords. Primary agricultural cooperative credit society started to protect and reduce indebtedness and burden of the farmers. Even though T.Palayam PACS secures net profit every year, members of their societies are still not satisfied with the limited number of loans. The T.Palayam PACS should improve the financial viability and adopt the strategies suggested by the

study to improve the operating performance in the long run. Cooperative societies are member-driven organisations with the possible scope and greater significance in uplifting the farmers and agriculture.

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Relita Fernandes*, Dr. Sitaram V. Sukthankar
Sunita V. Hanjunker *****

Abstract :

The banking system is the backbone of any nation's economy. Banks significantly contribute to economic and social development by facilitating savings mobilisation and financial inclusion. Co-operative banks are an important, and growing part of many monetary systems. The Co-operative Banks in India function in rural, urban and semi-urban areas.

This research aims to study the trends in Gross NPAs and Net NPAs of selected Co-operative Banks in Goa. The research also highlights the impact of Gross NPAs and Net NPAs on specific performance indicators of the selected Co-operative Banks. Eight oldest Co-operative Banks out of 15 co-operative banks operating in Goa are chosen for this research work. The data and information for understanding the working of the banks were collected by interviewing bank managers and other officials. Secondary data was obtained from annual reports of the Co-operative Banks and published reports of RBI. Techniques such as trend analysis and regression analysis were used to analyse the data. The study shows that over 10 years, Gross NPA and Net NPA show an increasing trend implying that average per year growth in Gross NPA is Rs. 2851.38 lakhs and in Net NPA is Rs. 1314.46 lakhs per annum. Gross NPA and Net NPA impact Investment, Capital Reserve, Advances, Deposits, Working capital, Operating Expenditure, and Retained Earnings. Gross NPA significantly impacts Interest Received, and Cash/Bank balances, while Net NPA does not impact these variables. Operating Profits are affected considerably by Net NPA, while Gross NPA does not show an impact on this variable. The study indicated that the effect of NPA is positive on all the performance indicators except Retained Earnings which Gross NPA negatively impacts. The study reveals that Gross NPA

* Research Scholar, **Associate Professor in Commerce, *** MCom Student Post-Graduate Department of Commerce, Government College of Arts, Science & Commerce, Khandola- Marcela, Goa

and Net NPA do not significantly impact Net Profits. The study recommends co-operative banks' measures to lessen current NPAs and avoid forthcoming NPAs. The study may assist the Government in crafting new approaches to control NPAs and also help to select suitable techniques matched to manage the NPAs and develop a time-bound action plan to check the growth of NPAs.

Keywords:

Banking, Co-operative Banks, Impact, Non-Performing Assets, Trend.

1. Introduction :

1.1 Overview of Financial System in India:

The financial system is a structure that consents to allocate money between savers and borrowers. It includes different establishments, financial markets, services, mechanisms, and instruments that promote the generation of saving, investment, and capital creation and lead to the economy's overall growth (Manikyam, 2014).

1.2 Overview of the banking sector of India:

The banking sector in India has undergone a sea change after the 1st segment of economic liberalisation in 1991; hence, credit management came into the picture. The principle purpose of banks is to advance loans to numerous sectors such as housing, agriculture, industry, personal, etc., and to collect deposits. Acceptance of warranty encompasses no risk. Subsequently, it is the banker who obliges a duty to repay it. On the additional indicator, advancing constantly implicates risk since there is no inevitability of repayment (Neetu Singh, 2018). The banking sector's improvement over the years has steadily changed the banking scenario in India. The banks treat their customers like a king and try to fulfil each need and propose advanced products quickly. Thus, the Indian banking segment has drastically changed its working environment over the years, which helps convert the banking sector into a vigorous and enthusiastic system capable of playing its role proficiently and efficiently (Parab, 2018).

The effect of a highly regulated banking situation on asset quality, banks' financial performance, and productivity imposed the restructuring procedure. Thus, it caused the assimilation of prudential norms for asset classification, income recognition, provisioning, and capital adequacy norms in streak with the most acceptable practices. Therefore, the enhancements

in asset quality and a reduction in non-performing assets were the primary objective enunciated in the reform measures (Khan, 2015).

1.3 Co-operative Banks:

The Co-operative Banks In India Function In Rural, Urban And Semi-Urban Areas. These Are The Banks Administered By The Indian Banking Regulations Act 1949, Co-operative Societies Banking Laws Act 1965, And Controlled By The Rbi. They Are Also Influenced By The Registrar of Co-operative Societies of the Concerned State Government In Which They Were Incorporated (Jawahar, 2012).

Generally, at the all-India level, a three-tier organisational set-up is accepted, i.e. State Co-operative Banks (First-tier), District Central Co-operative Banks (Second-tier), and Primary/ Urban Co-operative Banks (Third-tier). However, the Goa State is an exception to the said structure as Goa is a very tiny state. The District level co-operative organisations are not found in Goa. There is a linkage of Primary level co-operative organisations to the State Co-operative Bank and other State Co-operative Apex Organizations (Ajith, 2002).

1.4 Non-Performing Asset (NPA):

Non-Performing Assets (NPAs) is defined as “an account or asset of a borrower, that a financial institution or bank has categorised as doubtful, substandard, or loss assets by the guidelines or directions relating to asset classification issued by RBI” as per Enforcement of Security Interest Act, 2002 (Kenneth, 2014).

From the fiscal year ending March 2004 in the financial structure of India, which was moving in the direction of the international, most acceptable practices and safeguarding superior transparency, a standard benchmark of 90 days overdue norm was fixed for identification of NPA. An advance or a loan tends to be an NPA when:

- The instalment of principal or interest remains unpaid for an excess of 90 days regarding the term loan.
- The account leftovers ‘out of order’ for over 90 days, concerning Overdraft/Cash Credit (OD/CC).
- The bill remnants were outstanding for over 90 days in the case of bills purchased and discounted (Das, 2014).

Gross NPAs: Gross NPA is the sum of all loan assets classified as NPAs.

Gross NPA = Substandard + Doubtful + Loss Assets.

Net NPAs: Net NPAs are calculated by deducting provisions from gross NPAs.

Net NPAs = Gross NPAs - Net of Provisions on NPAs - Interest in the suspense account.

1.5 Impact of NPA's on Co-operative Banks:

Non-performing assets have been one of the most significant causes of frustration in the Indian banking sector. As a result, Cooperative Banks have become very vigilant in extending loans (Jasbir Singh, 2013).

Since 1904 the co-operative credit organisation has been aiding Indian society, and subsequently, it has grasped numerous ups and downs. The co-operative banking sector, already under pressure due to high non-performing assets (NPAs), is bracing for a significant accumulation in bad loans payable which can be credited to the outbreak of debt waiver schemes by states. These schemes have adversely impacted the repayments on the crop loans, as farmers anticipate more waivers. Due to the mismanagement in the loan distribution carried by the co-operative banks, the Indian Cooperative banking sector has been facing the NPA issue. This will hint at a disaster condition in the economy. Finally, it will lead to slower growth and higher inflation because of the higher cost of capital (Rathi, 2020).

2. Literature Review:

In a literature review, the chief focus is on scrutinizing and assessing what has been said earlier on the research subject and establishing the relevance of this information to the present research. In this section, a systematic literature review has been conducted to discover the research gap and scope of the proposed study.

Bansal et al. (2021), using statistical techniques of Person's correlation and multiple & stepwise models of regression, examined the influence of NPA on the profitability of the State Bank of India. The study concluded that return on net worth has a significant negative correlation with gross NPA and net NPA, whereas provision coverage ratio has an insignificant relationship with profitability. Moreover, the stepwise regression model indicated that Gross NPA is the single most significant factor affecting profitability, suggesting that the gross NPA is more intrinsic than the other NPA indicators.

Krishnaswamy (2021) conducted a cross-study of macroeconomic factors like GDP per capita, inflation, Real Interest rates, and bank factors such

as bank size, diversification, and priority and explored the possibility of corruption as a factor for NPAs in the four PSBs. The study found that corruption is significantly related to NPAs in the bank.

Thakur (2021) analysed the role of bank-specific variables in describing the nuances of non-performing assets (NPAs) of Indian banks in an unbalanced panel dataset of 71 banks for the period 2005–2017 and found empirical evidence for the existence of adverse selection and moral hazard incentives in sample banks and thus highlighted conclusive associations of rising problem loans with an elapsing period. The study indicated a significant and positive effect of macroeconomic variables on NPAs in Indian banks and the pro-cyclical relation of bank NPAs with the business cycle.

Rane et al. (2020) assessed the impact of non-performing assets on the financial performance of Scheduled commercial banks operating in India between 2004-05 and 2018-19. Secondary data of 87 commercial banks was obtained. The study's findings indicated a significant increasing trend in the NPA's of all banks under investigation. They discovered that the gross NPAs hurt the profitability and positively affect the operating cost of the selected banks.

Singh Pallavi et al. (2019) examined the situation of the non-performing assets in Punjab National Bank Ltd. This study concluded that non-performing assets showed a sudden increase and decrease during the study period and affected the total income, assets composition of the bank, and turnover of bank on its investments. Nivedita (2018) assessed the NPA status of State Co-operative Banks in India. The study concluded that the State Co-operative Banks depict a reduction in NPA except in a few states where there is an upsurge in the NPA.

Helge et al. (2017) ascertained the trend in deposits, disbursement, and credit-deposits ratio, gross and net NPA in Buldhana Urban Co-operative Credit Society. The researcher tried to detect the causes and effects of NPAs on the financial position of the Buldhana Urban Co-operative Credit Society. The significant findings indicate that NPAs were having a negative influence on the profitability of the Buldhana Co-operative Credit Society. The study suggested that the cooperative credit society should focus on reducing its NPAs and ensure proper management of the credit-deposit ratio.

Singh (2016) probed the influence of NPAs on Indian Scheduled Commercial Banks. The secondary data from 2000 to 2014 was used.

The study found that NPAs of scheduled commercial banks had increased over the period, and NPAs had reduced the banks' earning capacity, which further badly affected the ROI.

Rao Mayur et al. (2015) compared the NPA management of the Private Sector, Public Sector, and Foreign Banks during 2009-2013. The significant findings stated that the proportion of Gross NPA to Gross Advances grew for Public sector banks compared to private and foreign banks. The paper concluded that the ratio of Gross NPA to Gross Advances in the banks did not substantially differ between the years 2009-2013. Kumar (2015) studied the management of the NPA of Co-operative Banks by highlighting co-operative central banks in India. Polodoo et al. (2015) investigated the various banking and macroeconomic factors influencing non-performing loans in Mauritius. They indicated that the most critical elements influencing non-performing loans were a decline in the construction sector and the rise in cross-border loans.

Narula Sonia et al. (2014) evaluated the NPA impact on profitability and investigated the relationship between net profit, total advances, Gross and Net NPAs of Punjab National Bank. The study indicated a positive relationship between Net Profit and Punjab National Bank's NPA. The paper concluded that there is mal-administration in the bank management.

Ibrahim Syed et al. (2014) aimed to understand the concept of Loss Assets or Non-performing Assets (NPAs) of Indian Scheduled Commercial Banks. It was observed that all Indian Scheduled Commercial Banks' Gross NPAs had increased year after year.

Das et al. (2014) examined the differences in NPA of Indian Public Sector Banks during 2008-

3. The study concluded that there was no significant difference among the mean NPAs of the banks.

Bebeji (2013) focused on evaluating consolidation impact on quality of assets of the banks and considered the effect of consolidation on banks' non-performing loans. The finding depicted that although the non-performing loan ratio declined after the merger, the actual value of non-performing credits increased, possibly due to the diversification of bank activities into all sectors.

Prasad et al. (2012) analysed the trends in NPAs in India by considering Andhra Bank compared to PSBs and Nationalized Banks. It was observed from the study that a tremendous decline in NPAs of Andhra Bank as well in Public Sector Banks during the study period, even after enormous growth in advances. The results were achieved with the introduction of prudential norms.

Chipalkatti Rishi (2007) investigated whether Indian banks under-provide for loan loss provisions and understate their gross non-performing assets to boost earnings and capital adequacy ratios and concluded that "weak" Indian banks - defined by low profitability and low capital ratios camouflaged the magnitude of their gross non-performing assets in the post-1999 period.

3. Statement of Research Problem:

An extensive review of literature was conducted by referring to various articles published in research journals, books & other articles, which revealed the following:

- Some of the articles referred to were related to NPAs in Foreign Banks, Indian Scheduled Commercial Banks, State Co-operative Banks, and Urban Co-operative Credit Society.
- Few of the articles focused mainly on the bearing of NPAs on performance indicators, trends in NPAs, determinants of NPAs, and correspondingly inferred the NPA management.

From the above literature review, it was discovered that no study had been conducted from the period 2009-10 to 2018-19 in the context of the objective stated in the survey. Hence this study has been undertaken.

4. Objectives of the Study:

The foremost objectives of the research were as follows:

4.1 To study the trends in Gross NPAs and Net NPAs of selected Co-operative Banks.

4.2 To study the impact of Gross NPAs and Net NPAs on performance indicators of the selected Co-operative Banks.

5. Testing of Hypothesis:

To accomplish the stated objectives, the following null hypotheses have

been framed:

- **H₁:** There is no significant trend in Gross NPA and Net NPA for selected Co-operative Banks.
- **H₂:** There is no significant impact of Gross NPA and Net NPA on Net Profit, Investment, Capital Reserves, Advances, Deposits, Cash and Bank balance, Working Capital, Operating Expenditure, Operating Profit, Interest Received and Retained Earnings of selected Co-operative Banks.

6. Research Methodology:

6.1 Sources of data: The data for this study has been obtained from primary and secondary sources.

- Primary data: The data and information for understanding history, the contemporary scenarios, and the intricacies of the working of the banks was collected by the researcher by interviewing a total of 8 bank managers from each of the 8 banks selected for the study.
- Secondary data: The secondary data has been acquired from annual reports of the Co-operative Banks and published reports of RBI. Other relevant data were collected from various websites, journals, and books.

6.2 Sample size: Eight oldest Co-operative Banks out of 15 co-operative banks operating in Goa were selected for this research work. The banks chosen for the study are:

Goa Urban Co-operative Bank, Mapusa Urban Co-operative Bank, The Women's Co-operative Bank, Madgaum Urban Co-operative Bank, The Shamrao Vithal Co-operative Bank, North Kanara GSB Co-operative Bank, Saraswat Co-operative Bank, and TJSB Sahakari Bank.

6.3 Period of Study: The study is based on data from 2009-10 to 2018-2019.

6.4 Data Analysis: The data analysis has been done using the Gretl tool. The data collected were identified as panel data, and appropriate analysis techniques were used.

- Trend analysis is used to identify if there exists any significant trend in Gross NPAs and Net NPAs.
- Regression analysis is used to evaluate the impact of Gross NPAs and Net NPAs on the performance indicators. Since the data is identified as panel

data, Fixed Effect Model and Random Effect Model are used for the analysis (Gujarati, 2010).

6.5 Variables for the study:

- For trend analysis, the variables considered to identify any significant trend in NPAs are: Net NPA and Gross NPA
- For regression analysis, the variables considered to analyse the impact of NPA on performance indicators are:
- Dependent variables: Net Profit, Investment, Advances, Deposits, Cash/Bank Balance, Working Capital, Capital Reserves, Interest Received, Retained Earnings, Operating Expenditure, Operating Profit.
- Independent variables: Net NPA and Gross NPA

7. Data Analysis And Interpretation:

7.1 Trends in Gross NPA and Net NPA of Selected Co-operative Banks

Trend analysis is a technical analysis that studies the movement of a particular entity based on past performance (Hazarika, 2019).

For testing the hypothesis, the researcher has used trend analysis. Table 1 shows the result of trend analysis which analysed if any significant trend existed in Gross NPAs and Net NPAs.

Table-1: Results of Trend Analysis

Variables	Adjusted R-Square	Coefficient	P-value
Gross NPAs	0.102598	2851.38	0.0022
Net NPAs	0.162779	1314.46	0.0001

Source: Analysis using secondary data from annual reports of selected banks

The adjusted R-square value for Gross NPAs and Net NPAs indicates that 10.25% and 16.27% of the variation in the respective variable is shown by time trend analysis.

The p-value for Gross NPAs and Net NPAs is less than 0.05 at a 5% level of significance, which indicates a significant trend in Gross NPAs and Net NPAs.

The coefficient value for both these variables is positive, indicating a positive trend, and implies that the average growth in Gross NPAs and

Net NPAs has been Rs.2851.38 lakhs per annum and Rs.1314.46 lakhs per annum, respectively.

7.2 Impact of gross NPAs and net NPAs on performance indicators of selected cooperative banks :

For testing hypothesis II, the researcher has used Regression analysis. In addition, the Panel Data Analysis enabled the researcher to evaluate the impact of Gross NPAs and Net NPAs on the performance indicators of the selected banks (Mubeen, 2019).

It was initiated by conducting Panel Data Diagnostic Testing.

Panel Data Diagnostic Testing acts as a deciding factor that helps the researcher choose among the Pooled OLS method, fixed effect model, or random-effect model (Agarwala, 2019). Based upon the models following hypotheses are framed.

• Pooled OLS or Fixed Effect Model

Residual Test:

H₁: Fixed Effect Model is adequate.

• Random Effect Estimator

Breush Pagan Test:

H₁: The Random Effect Model is adequate.

• Fixed or Random Effect Model

Hausman Test Statistic:

H₁: The Fixed Effect Model is adequate.

Table 2 shows the results of panel data diagnostic testing, and based on the statistic values, the most suitable model is selected to conduct the regression analysis.

Table-2: Results of Panel Data Diagnostic Testing

Model	Fixed Effect	Random Effect	Fixed or Random Effect
Test Variables	Residual Test Statistics	Brush-Pagan Test Statistics	Hausman Test Statistics
Investment	1.90719e-029	9.26067e-007	1.40633e-022

Capital Reserve	1.48316e-027	6.44439e-012	2.29798e-013
Advances	1.26786e-016	1.30698e-005	9.31545e-017
Deposits	4.11303e-026	1.12252e-006	7.32377e-022
Working Capital	7.31356e-028	3.80247e-013	1.60813e-008
Net Profit	2.25715e-027	2.06012e-054	0.633692
Cash/Bank Balance	1.77808e-017	2.32727e-031	0.20093
Operating Expenditure	8.21428e-023	1.37358e-010	1.57846e-011
Operating Profit	1.62474e-017	1.82469e-008	3.08554e-008
Interest Received	1.64633e-028	3.11962e-006	7.0697e-023
Retained Earnings	0.159936	-	0.00238321

Source: Analysis using secondary data from annual reports of selected banks

I. Residual Test Statistics values for Investment, Capital Reserves, Advances, Deposits, Working capital, Net Profit, Cash/Bank balance, Operating Expenditure, Operating Profit, and Interest Received are less than 0.05 at a 5% level of significance. Hence we reject the null hypothesis and conclude that the Fixed Effect Model is adequate. Residual test statistics value for Retained Earning is more than 0.05 at a 5% significance level. Hence we fail to reject the null hypothesis and conclude that the Pooled OLS Method is adequate.

II. Breush Pagan Test Statistics values for Investment, Capital Reserves, Advances, Deposits, Working capital, Net Profit, Cash/Bank balance, Operating Expenditure, Operating profit, and interest Received are less than 0.05 at a 5% level of significance. Hence we reject the null hypothesis and conclude that the Random Effect Model is adequate.

III. Hausman Test Statistics values for Investment, Capital Reserves, Advances, Deposits, Working capital, Operating Expenditure, Operating profit,

interest Received and Retained Earning are less than 0.05 at a 5% level of significance. Therefore we reject the null hypothesis and conclude that the Fixed Effect Model is adequate. Hausman Test Statistics values for Net Profit and Cash and bank balance are more than 0.05 at a 5% significance level. Hence we fail to reject the null hypothesis and conclude that the Random Effect Model is adequate.

Table-3: Results of Regression Analysis
Independent Variables: Gross NPAs, Net NPAs

Dependent Variables	Type of Model	Adjusted R-square	The coefficient value of Gross NPA	P-Value of Gross NPA	The coefficient value of Net NPA	P-Value of Net NPA	P-Value (F-Test)
I. Investment	FEM	0.856737	3.72840	<0.0001	3.93594	<0.000	1.88e-
II. Capital Reserve	FEM	0.863555	1.28837	<0.0001	0.690498	0.0062	3.46e-
III. Advances	FEM	0.781968	10.0162	<0.0001	11.6594	0.0004	6.56e-
IV. Deposits	FEM	0.891060	15.5359	<0.0001	13.9375	<0.000	8.31e-
V. Working	FEM	0.842808	17.5993	<0.0001	13.2290	<0.000	1.97e-
VI. Net Profit	REM	-	-0.035361	0.9721	2.93568	0.1350	-
VII. Cash/Bank	REM	-	1.12832	<0.0001	-4.74216	0.3988	-
VIII. Operating	FEM	0.833074	1.41936	<0.0001	0.718531	0.0195	1.97e-
IX. Operating	FEM	0.336992	0.0218920	0.5869	0.237961	0.0029	9.64e-
X. Interest	FEM	0.877499	1.65544	<0.0001	0.173216	0.4906	7.30e-
XI. Retained	FEM	0.133110	-0.076104	0.0041	0.158375	0.0020	0.0600

Source: Analysis using secondary data from annual reports of selected banks

• **Adjusted R-square value:** The Adjusted R-square value for Investment, Capital Reserve, Advances, Deposits, Working capital, Operating Expenditure, Operating Profit, Interest Received, and Retained Earnings indicate that 85.67%, 86.35%, 78.19%, 89.10%, 84.28%, 83.30%, 33.69%, 87.74%

and 13.31% variation in these variables is explained by Gross NPAs and Net NPAs respectively.

• **Impact of Gross NPAs (T-Test):** The P-values for Net Profit and Operating Profit are more than 0.05 at a 5% level of significance. Hence we fail to reject the null hypothesis and conclude that there is no significant impact of Gross NPAs on Net Profit and Operating Profit.

The P-values for Investment, Capital Reserve, Advances, Deposits, Working capital, Cash/Bank balance, Operating Expenditure, Interest Received, and Retained Earnings are less than 0.05 at a 5% level of significance. Hence we reject the null hypothesis and conclude that there is a significant impact of Gross NPAs on all these performance indicators.

The coefficient value for Investment, Capital Reserve, Advances, Deposits, Working capital, Cash/Bank balance, Operating Expenditure, and Interest Received is positive, indicating a positive impact of Gross NPAs on these variables. Therefore can be concluded that Rs.1 lakh increase in Gross NPA will lead to an increase of Rs. 3.73 lakhs, Rs. 1.29 lakhs, Rs. 10.02 lakhs, Rs. 15.54 lakhs, Rs. 17.60 lakhs, Rs. 1.13 lakhs, Rs. 1.42 lakhs and Rs. 1.66 lakhs in the respective variables.

The coefficient value for Retained Earnings is negative, indicating a negative impact of Gross NPA on this variable. Hence it suggests that Rs. 1 lakh increase in Gross NPA will lead to Rs. 0.08 lakh decrease in retained earnings.

• **Impact of Net NPAs (T-Test):** The P-values for Cash/Bank balance, Net Profit, and Interest Received are more than 0.05 at a 5% significance level. Hence we failed to reject the null hypothesis and conclude that there is no significant impact of Net NPAs on variables such as Cash/Bank balance, Net Profit, and Interest Received.

The p-values for Investment, Deposit, Working Capital, Capital Reserves, Advances, Operating Expenses, Operating Profit, and Retained Earnings are less than 0.05 at a 5% significance level. Hence we reject the null hypothesis and state that there is a significant impact of Net NPAs on all these variables. The coefficient value for Investment, Capital Reserve, Advances, Deposits, Working Capital, Operating Expenditure, Operating Profit, and Retained Earnings is positive, indicating a positive impact of Net NPAs on these

variables. Therefore it can be stated that Rs. 1 lakh increase in Gross NPA will lead to an increase of Rs. 3.94 lakhs, Rs. 0.69 lakhs, Rs. 11.66 lakhs, Rs. 13.94 lakhs, Rs. 13.23 lakhs, Rs. 0.72 lakhs, Rs. 0.24 lakhs, and Rs. 0.16 lakhs in the respective variables.

• **The joint impact of Gross NPAs and Net NPAs (F-Test):** The p-values for Investment, Capital Reserve, Advances, Deposits, Working Capital, Operating Profit, Operating Expenditure and Interest Received are less than 0.05 at a 5% level of significance. Hence we reject the null hypothesis and conclude that there is a significant joint impact of Gross NPAs and Net NPAs on these variables. The p-value for Retained Earnings is less than 0.1 at a 10% level of significance. Hence we reject the null hypothesis and indicate a significant joint impact of Gross NPAs and Net NPAs on Retained Earnings.

8. Findings of the Study:

- The study shows that over 10 years, Gross NPA and Net NPA show increasing trends with an annual average growth of Rs.2851.38 lakhs and Rs.1314.46 lakhs, respectively.
- The study shows that Investment, Capital Reserve, Advances, Deposits, Working capital, Operating Expenditure, and Retained Earnings are impacted by Gross NPAs as well as Net NPAs.
- The study indicates that Interest Received and Gross NPAs significantly impact cash/ Bank balances while Net NPAs do not considerably influence these variables.
- The study found that Operating profit is significantly impacted by Net NPAs while Gross NPAs do not considerably affect this variable.
- Retained earnings show a negative impact, which reveals that the problem of NPA has not directly impacted Net Income. Still, indirectly, it had affected, i.e. due to the rise in NPA, the Co-operative banks cannot maintain decent retain earnings.
- NPA has shown a positive impact on investments. Hence, it can be inferred that banks have attempted to maximize available funds by investing in various capital market sectors. Therefore, when any uncertainty occurs, they can use the invested funds in the future.
- NPA is showing a positive impact on Capital reserves. This indicates that banks are trying to create more reserves and provisions to safeguard themselves and avoid any adverse situations due to NPA, which may lead to bankruptcy.
- NPA shows a positive impact on cash/ bank balance, which implies that banks are trying to maintain higher cash/ bank balances to deal with any

financial crisis that may occur in the future and assist them in coping with situations that may lead towards insolvency.

- An increase in deposits accepted by banks due to increased numbers of new deposits accounts may be identified as a reason for increased lending, further increasing NPAs. Hence NPAs show a positive relationship with deposits.
- Increased lending may result in high NPA, but it will also increase operating profit for the banks. Hence NPAs show a positive relationship with operating profits.
- NPA shows a positive impact on operating expenses. This may be due to an increase in the costs related to the management of NPAs, such as administrative expenses, legal expenses, and carrying costs of NPAs.
- Results also indicate a positive impact of NPAs on working capital. This could be because of the stringent regulatory norms banks have to follow while accepting deposits and lending credit to their customers.
- The positive impact of NPAs on advances lent by the Co-operative banks indicates that these banks can increase their proportion of advances at the cost of an increase in NPAs.
- A positive impact of NPAs on interest received by the co-operative banks indicates that banks monitor their loans and advances appropriately and try to collect interest due at regular intervals.
- The study reveals that Gross and Net NPAs do not significantly impact the net profits.

9. Suggestions And Recommendations:

Following suggestions are made based on findings and conclusion:

- Co-operative Banks should maintain a minimum capital adequacy requirement of 9% of risk assets.
- Loans should not be granted without proper evaluation of the borrowers as unnecessary credit growth results in credit risks exposure.
- Recovery through Lok Adalat, SARFAESI proceedings, DRT, civil suit for recovery of dues should be adopted by Co-operative banks for reducing NPAs.
- Co-operative banks need to upsurge their profitability while reducing their Gross and Net NPAs since such high NPAs might cause the bank to enter into the Bankruptcy zone.
- RBI should impose stringent regulations on co-operative banks compared to commercial banks, which will assist the co-operative banks in restructuring.
- Co-operative Banks should strive hard to maintain a high rate of ROA

and ROE by venturing into profitable avenues.

- Government and RBI should play a crucial role in the rapid growth of co-operatives. Like the Public or Private sector, there should be a Cooperative sector through which Government and RBI should place adequate funds at the disposal of this sector.

10. Conclusion:

The Co-operatives bank involves mobilizing and effectively lending funds. Sometimes, the loans disbursed by different financial institutions are default, termed Non-Performing Assets. These are the assets that do not bring any returns and affect the overall financial performance of Co-operative banks. This study has found that NPAs have a significant impact on the majority of the performance indicators. Hence, the banks must reduce their NPAs to safeguard against insolvency and bankruptcy. The urge to earn high profits has led to banks' aggressive lending, resulting in an increasing trend in the bank's NPAs. The study sheds light upon the banker's willingness to provide credit at the cost of NPAs to maximize their short term profitability. The study also spectacles the increasing trend in Gross NPA and Net NPA over time, which shows the inefficiency of banks in evaluating and managing risk associated with sanctioning of credit. To overcome this problem, banks should appoint professional experts to assess and monitor the bank's credit policy. There is a greater need for banks to realize and evaluate the adverse implications NPAs can have on the bank's credibility in the long run.

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Tribal Co-operative Societies And Its Effectiveness In The Collection And Marketing of Non-Timber Forest Produce (NTFPs) In Kerala

Dr. Philip Thomas*, Dr. G.veerakumaran,**

Abstract :

In Kerala, 149 items from Kerala forest is notified as Non- Timber Forest Produce (NTFP). The collection and marketing of these medicinal and non-medicinal herbs are exclusively given to Tribes and Tribal Co-operative Societies (TCS) in Kerala from 1978 onwards. Though 93 Tribal Cooperative societies are there, around 43 societies have engaged in the collection and marketing of NTFPs in Kerala. The present study has examined the procurement and marketing practices of NTFP by tribes and tribal co-operatives and examined the role of co-operatives in liberating the tribes from the clutches of private traders. The study has used two periods of data Period 1- Before 2000 data and the data of 2021. Primary data were collected from 254 tribal households, 10 Tribal Co-operative Societies (TCS) ,25 collection agents of TCS, 14 Forest Range officers , 44 Board of Directors of TCS and 45 Ayurvedic Medicinal Manufacturing Units in Kerala. The study revealed that more than 52% of these tribes treat collection and marketing of NTFP as their main occupation and 45% as their main subsidiary occupation and only 4% of the tribes are engaged in cultivation of their land. Though some training had given, still the tribe's uses the conventional method of extraction of NTFP and which had affected the regeneration as well as sustainability of the forest. It is also observed that the NTFP list published by the authorities are not exhaustive. The average days of employment of a tribal worker through all his operations is found to be 236 man days, of which 132 is devoted for the collection and marketing of NTFPs. The study observed that still the tribes market only

*Director, Marthoma College of Management & Technology, Perumbavoor, Ernakulam Dt. Kerala; **Professor & Hod, College of Cb &M, Kerala Agricultural University, Thrissur, Kerala

67% of their product through co-operatives and not liberated under the clutches of private traders. The monopoly right of TCS resulted in lack of competition, enthusiasm, forward and backward linkages and ultimately resulted in low prices for NTFP. Inter and intra difference among tribal communities and regions exist in the collection and marketing of NTFPs in Kerala. The study revealed that the cooperatives had paid only 66% of the sales value as collection charge to tribes. Region-wise and item wise variation were also found to be in the study region. Item-wise analysis indicate that for medicinal items the collection charge varies from 54.1% to tuber crops to 73.5% for flowers and for non-medicinal items it varied from 29.7% for spices to 70.8% for edible items. The co-operative sector does not have proper liaison with the end-users of NTFP. The response analysis of the officials from various department made it clear that the sporadic attempt of some of these agencies would not be helpful to bring a relevant change in the collection and marketing of NTFP in the state. The study revealed that only 4.73 per cent of the tribes have a satisfactory level of participation in the affairs of TCS. Non-integration of various agencies in the marketing of NTFP resulted to system failure and everything goes to the benefit of private traders and not to tribes. The regulated market with a Common Facility Centre managed by tribes and officials of tribal department and forest officials would be an ideal solution for the collection and marketing of NTFP in the state.

Introduction :

Tribes in Kerala constitute for 1.38 percent of the total population of the state and are mostly concentrated in Wayanad, Palakkad and Idukki districts. Over the census period, it is noted that the tribal population in kerala has increased to 1.3% with a registered decline in certain districts in kerala such as Kottayam, Thrissur and kasaragod may be due to urbanization taking place in these districts. Even though 45 communities have been identified as Tribal communities, so far only 35 tribal communities have been notified as Scheduled tribes under the provisions of the Indian Constitution. Among the 35 Tribal communities, only eight tribal communities have dominated in the state such as Marati, Paniyan, Irular, Malayan, Ulladan, Malayarayar, Kanikkar, Kuruman, Kurichian, and Muthuvan. The tribal people of Kerala, like their counterparts as elsewhere in India, live in the midst of poverty, suffering and exploitation in every sphere of their life. Being the most backward community, their economy is characterised by land alienation,

indebtedness, exploitation, bonded labour system and poverty. Over the years, the Central and state governments have initiated a number of measures to ameliorate their economic conditions and to preserve their culture. However, these measures have been sporadic and lack an integrated approach.

As per 2011 census, 29.62% of the tribal households in Kerala do not have land. The tribes who owned the land are not cultivating their land due to reasons such as lack of finance, threat of wild animals, lack of irrigation facilities, rocky and waste land which are unfit for cultivation.

As per the survey conducted by Rural Development Department Thiruvananthapuram, 48.47 percent of the tribes are still below the poverty line. The incidence of poverty is high in Wayanad District where more than 35% of the tribal population resides in the state.

The study shows that the level of literacy of tribes have increased from 17.26 % in 1961 to 78 % in 2011. Among the different districts, the highest tribal literacy was noted in Kottayam district (88.69%) which was declared as cent percent literate district in the state. Palakkad seems to be the district with lowest tribal literacy in the state.

NTFP plays a very important role not only in the economy of forest dwellers but also the economy of the country as a whole. Even in a country like India where there has been massive deforestation over the last 150 years, approximately 50 million people depend on forest products for their existence. Excluding the value of the products used by the forest dwellers themselves, the government generates revenues approximately 135 million dollars a year from these products. On a Global basis, the value of NTFP is estimated to be approximately 50 Dollars per hectare. The revenue has grown substantially as indicated by the increase in national income from NTFP from Rs.30.3 million in 1947 to Rs 1.5 billion in 2011. In the state of Karnataka alone, the Government now earns over Rs 10 Million from the sale of over 150 items of NTFP. Government statistics show that NTFP now account for 38% of the Forest Department's total internal revenue and constitutes 67% of India's net export earnings from forest products. NTFP represent an integral component in the economy, diet, health, culture and religion of a large population of India's forest dwellers, rural farmers, and urban population since ancient times.

Collection and marketing of NTFP and tribal participation through tribal co-operatives in Kerala

The study has the following objectives

1. To assess the procurement and marketing practices of NTFP by tribes and tribal co-operatives and examine the role of co-operatives in liberating the tribes from the clutches of private traders
2. To study the relative efficiency of marketing channel
3. To analyse the inter-difference between tribes and regions in the collection and marketing of NTFP
4. To examine the forward linkages of TCS with the Ayurvedic Medicinal Manufacturing Units of Kerala
5. To describe the extent of participation of tribes in the collection and marketing of NTFP and management of societies in Kerala

Methodology Used :

Primary as well as secondary data were used for the study. Two periods of data were used for the study - Secondary data from 1982-83 to 1999-2000 and data from 2010-11 to 2019-20 and primary data of 1999-2000 & 2021. Primary data were collected with the help of pre-tested schedules from 254 tribal households, 10 Tribal Co-operative Societies (TCS), 25 collection agents of TCS, 14 Forest Range officers, 44 Board of Directors of TCS and 45 Ayurveda Medicinal Manufacturing Units in Kerala. The study has covered four regions of Kerala such as Thiruvananthapuram, (TVM, Kollam and Pathanamthitta districts), Adimaly (Idukki and Kottayam districts) Thrissur (Thrissur, Palakkad and Malappuram districts) and Kalpetta (Kozhikode, Kannur and Kasaragode district). The collected data were analysed with the help of scientific tools. The present paper is an examination of institutional effectiveness in the collection and marketing of NTFP through TCS over a period of time.

The Major Findings of the Study :

1. Even though the literacy level of tribes in Kerala is found to be 47% the effective literacy is worked out to be 20.45% in 1999. The literacy rate has increased to 78% as per 2011 census. The distance of school from the dwelling place, remoteness, employing children for collection and marketing of NTFP, illiteracy of parents and poverty are the root causes for the poor literacy of tribes in Kerala
2. Occupational pattern
The study reveals that 81% percent of the work force is engaged

in occupations like collection and marketing of NTFP, Agricultural labour, cultivation , forest and estate job, weaving etc. More than 52% of these tribes treat collection and marketing of NTFP as their main occupation and 45% as their main subsidiary occupation and only 4% of the tribes are engaged in cultivation of their land.

3. When the collection and marketing of NTFP through TCS was introduced in 1978, only 76 items were allowed to collect from forest , which was increased to 120 items by 1993-94 and by 2021 it is increased to 149 items. Till 2010 no training was given to tribes to extract these items from forests. Though some training was introduced , and it is not monitored properly, still tribes uses the conventional method of extraction of NTFP and which affect the regeneration as well as sustainability of the forest.
4. It is also observed that the NTFP list published by the authorities are not exhaustive. The regions are still vested with a lot of NTFPs which can be easily be collected. In certain regions tribes collect these items and market them through private traders. Since the TCS are not undertaking marketing of these products, the tight lipped attitude of the officials help the tribes to develop some relationship with private traders and ultimately may lead the tribes to market even the listed NTFP through private traders.
5. The ill-equipped collection kit may not only affect the total quantity of items collected but also the quality too
6. The average days of employment of a tribal worker through all his operations is found to be 236 man days, of which 132 is devoted for the collection and marketing of NTFPs. Non collection of all NTFPs, low price offered by cooperatives for certain items, alternative employment opportunities might be the reasons for low man-days for the collection and marketing of NTFPS
7. Sixty one percent of the total collection of NTFPs were found to be medicinal herbs and 39 percent were non-medicinal items. Among the medicinal herbs, root items claimed the maximum share. It is noted that 59% of the total value of collection charge to tribes is from medicinal items and 41% from non-medicinal items. Region wise analysis also indicate that there exist substantial difference in the collection and marketing of NTFP and even the availability different species in the study region.
8. The tribes are expected to market their entire collection through TCS. The co-operatives are supposed to play a dynamic role in the marketing of tribal product and fetch a remunerative price for NTFP. Till 2010,

the NTFP committee has fixed the collection charge as well as the sales price and the product was marketed through SC/ ST federation. The guaranteed collection charge was 75% of the sales value and the study found that for most of the items the collection charge was around 67 percent of the sales value and the tribes marketed only 67% of their product through co-operatives. Since 2010 the price fixation mechanism was changed to open market operations. The NTFP committee was just fixing a base price in consultation with the various officials including the secretaries of TCS and the Board of Directors of TCS were given freedom to re-fix the price based on the market conditions but either the NTFP committee or SC/ST Federation was not offering any guarantee for the price fixed by the NTFP committee or the Board of TCS. As per the new system , the product is again marketed through SC/ST federation and which take 5 % of the sales price as commission. Though the NTFP collection and marketing of NTFP through TCS in kerala is introduced way back in 1978 , still the tribes are under the clutches of non-cooperative channels. This monopoly right resulted in lack of competition, enthusiasm, forward and backward linkages and ultimately resulted in low prices for NTFP.

9. Till 2013 only Tribal cooperatives were allowed to collect and Market NTFP. But as an introduction of the new forest policy in 2003 and its implementation 2013, the forest department, kudumbasree and some are voluntary agencies also come in the picture for marketing of NTFP. As a result of this, the TCS lost monopoly in the marketing of NTFP in kerala and tribes got freedom to market the product through any of these agencies in the region. It has very much affected the overall performance of TCS in the state.
10. The study also proved that the societies with better facilities could procure and market more NTFP than societies with less staff and infrastructure facilities.
11. Inter and intra difference among tribal communities and regions exist in the collection and marketing of NTFPs in kerala. Among the 11 tribal communities under study, the Kattunaikken tribal community did the maximum collection and marketing of NTFP in the study region (Rs 14744 per annum). It is also observed that 97% of their total sale is done through co-operatives whereas it was only 20% for kanikkars and 15% kurichiyans.
12. The co-operative sector does not have proper liaison with the end-users of NTFP. The entire non-medicinal herbs are being marketed through private traders in outside kerala. In the case of medicinal

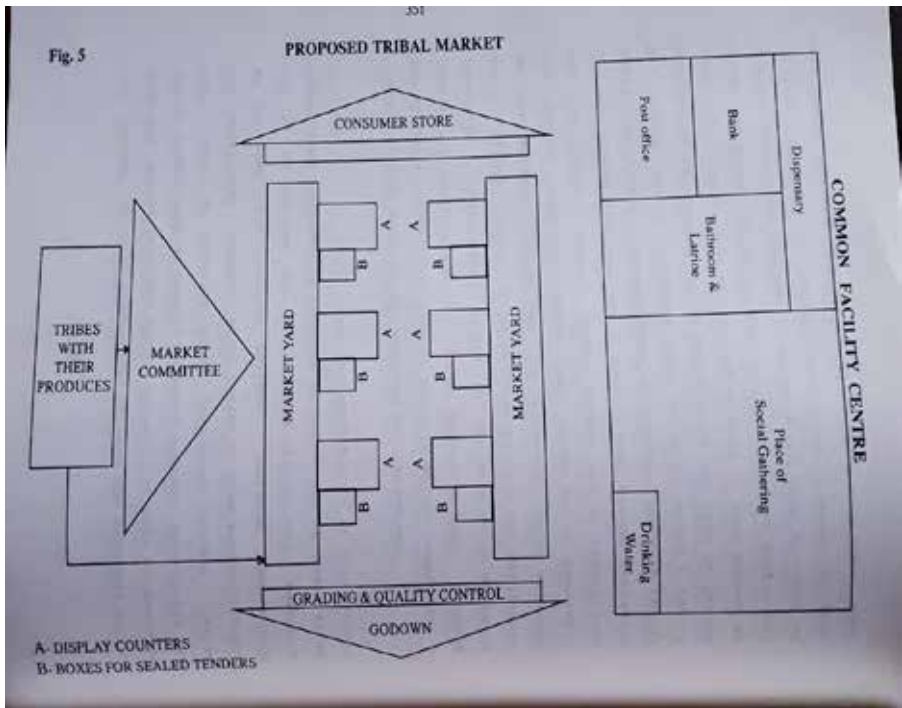
herbs, only 31.8 percent is directly marketed to the end-users of the products during the period under study. Though we have 887 registered Ayurvedic Medicinal Manufacturing Units in Kerala, and their demands are so high, due to lack of proper linkage between these institutional arrangements, the NTFP trading is still under the clutches of private traders.

13. The response analysis of the officials from forest department, Tribal department, the Pharmaceutical Corporation of Kerala Ltd, and Arya Vaidysalas indicate that their linkage with TCS is only marginal might be for issue of pass for collection of NTFP or for contribution towards share capital of TCS . It was found that none of these institutions take a daring support for the collection and marketing of NTFP in the state. Hence it is clear that not only the end-users but also the supporting institutional arrangements are also not having proper liaison with TCS in the collection and marketing of NTFP in the state.
14. The pricing strategies of SC/ST federation as well as the NTFP committee was found to be very unscientific. The study found that the price is fixed from time to time without making any proper demand and supply analysis or the price prevailing in the market for NTFP. Since they didn't have any liaison with the demand pockets of NTFP, the price they normally fixed would be far away from the reality. It is noted that the price paid by the TCS for items of NTFP were always much higher than what was fixed by the NTFP committee. Instances of offering less than the guaranteed price were also observed in items like tuber crops, fruits, oil seeds and spices. Though the Board of Directors of each TCS have the freedom to refix the price, the non-integration of the institutional arrangement in the collection and marketing of NTFP push the tribes again to the unscrupulous activities of private traders in the study region.
15. Region-wise and item wise variation were also found to be in the study region. Item-wise analysis indicate that for medicinal items the collection charge varies from 54.1% to tuber crops to 73.5% for flowers and for non-medicinal items it varied from 29.7% for spices to 70.8% for edible items.
16. It is also noted that the price offered by the non-cooperative channel was always higher than the price offered by co-operative channel. As regards to items like fruits, barks ,seeds, and oil seeds , the price offered by cooperatives were even did not touch 50% of the price offered by private traders. The price spread and its sharing clearly indicate that 78.5% of the spread is gone to the hands of private

traders. Even though the TCS got a monopoly right to procure and market NTFPs, it failed to establish a rapport with the end users of the product. It indicates the institutional ineffectiveness.

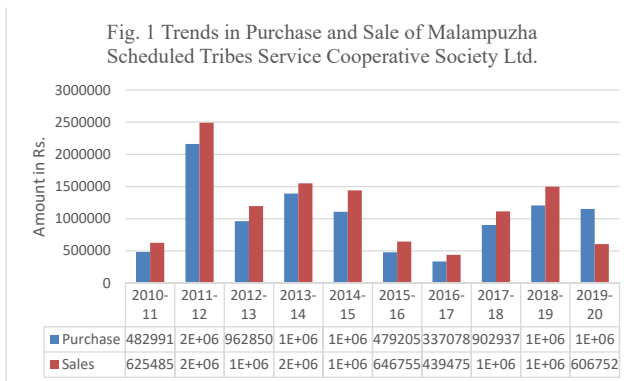
17. The survey revealed that only 4.73 per cent of the tribes have a satisfactory level of participation. The tribes in general feel that their participation is generally required in the determination of collection charge of NTFP only. It is observed that in Malampuzha Tribal co-operative Societies, out of 522 members, only 150 members engaged for the collection and marketing of NTFP. But the society employs, more than 400 non-members to collect the items from forest and provides 5% commission to the collection agent to carry out the operations at the tribal area due to the shortage of at the TCS.

18. The study also found that most of the TCS were far away from the tribal hamlets. of the 390 colonies which came under the purview study area, only 7 % of them were within ten kilometres of the society. Thirty five percent of the offices of TCS were about 35 kilometres away from the tribal hamlets and which were not well connected by roads.



Malampuzha Scheduled Tribes Service Cooperative Society, Palakkad District of Kerala :

Malampuzha Scheduled Tribes Service Cooperative Society Ltd., was registered on 14th February 1976 and started functioning on 27th February 1976. The area of operation of the society is the entire Palakkad Taluk of Palakkad District. The society has its own office with a godowns. As on 31st March 2021, the society had 522 tribal as individual members and the state government as members of the society. Since, tribal youths are not interested in collection of non-timber forest products/minor forest produces the members is declining year by year. Though the authorized share capital is Rs.36 lakhs, only Rs.549850/- worth of shares were subscribed and of which Rs.375500/- was paid. Interestingly, merely Rs.15500/- was paid by the tribal members, rests by the government of Kerala. Management of the society rests with the nine board directors consists of seven elected members and two ex-officio members (Palakkad Tribal Extension officer and Walayar Forest Range officer). The society has not borrowed from any sources. The prime business of the society is procurement and marketing of major non-timber forest products/minor forest produces. The society directly purchasing from the members and for sale participates in the auction conducted by the Kerala State Federation of SC, ST Development Cooperatives Ltd.,



The purchase and sale of the society reveals an erratic picture and the reasons are manifold. The major reasons for this phenomenon are:

1. Youths are interested to do their traditional vocation of collecting minor forest produces from the forests.
2. Restrictions on the part of forest officials and strict legal compliances.
3. Declining trend in regeneration of minor forest produces in the forests due to climate change.

4. Formation of parallel forest institutions by the forest departments and more patronage to those newly established self-help groups than for the cooperatives.
5. Though the society made gross profit from 2011-12 to 2018-19, the accumulated loss has mounted and stood at Rs. 1.01 crores in the year 2020-21. The society is in a precarious situation and needs the intervention of the state and union governments in revamping their activities. There is scope for doing business and the produces are having high demand in the market. Sustained harvest practices and coordination of all the agencies operating for the same purpose may bring betterment to the tribal community. The assets and liabilities statement of the society seems to depict the unrealizable position and the society needs a revamping strategy.

Conclusion:

Marketing Environment Is A Major Factor That Is To Be Considered While Marketing A Product From An Area. Till The Introduction of the Formal System of Marketing Through Tcs In 1978, The System Was Fully Under The Control of Private Traders. Even After The Introduction of the Formal System of Collection And Marketing of NTFP Through Tribal Co-operatives, And Subsequent Participation of Kudumbasree And Other Voluntary Organisation In The Marketing of NTFP And Lack of Integration of Among These Agencies The Tribes Are Still Found To Be Under The Clutches of Private Traders In The Study Region. Non – Integration of the Functions of Various Agencies, Overlapping The Functions of Institutional Arrangement, Lack of Awareness And Member Participation of Tribes In The Functioning of Co-operatives, Ill-Equipped Staffs of Tcs , Lack of Coordination With The Demand Pockets of NTFP Were Found To Be The Major Reasons For The Ineffectiveness of the System. Regulated Market With Common Facility Centre Would Be An Ideal Solution To Encompass The Situation. The Infrastructure Such As Market Yards, Godowns Facilities, Processing And Grading Facilities, Quality Control Etc. Have To Be Developed. The Joint Forest Management Laws And The Intervention of Forest officials In The Collection And Marketing of NTFP Shall Be Restricted.

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A Study of Members Aspiration from selected Fishery Cooperatives in Goa

Relita Fernandes*, Dr. Sitaram V. Sukthankar**,
Vijayadurga Bandodkar ***

Abstract :

Fish is one of the most critical components of daily meals, especially along India's coastal belt. Considering the importance of fishing, fisheries co-operatives were established to provide financial assistance to the fishers'. Fishers being viewed as among the socio-economically backward sections of the society, fishers' co-operatives have proved to be the most appropriate organisations to improve their socio-economic status. The fishery co-operative movement in India began in 1913 when the first fisherman society was organised under the name of "Karla machimar" (fishermen) co-operative society in Maharashtra. The fisheries co-operative structure is broadly classified into three sections: primary co-operative for the village, a district or regional federation & a state-level co-operative federation. Fishing Cooperative Societies focus on helping the fishers in various fishing-related activities such as marketing of fish, supplying fishing materials such as fishing nets, hooks, boat engines, spare parts, and providing other items such as groceries, ice, fuel, and so on at subsidised rates.

The main objective of this study is to examine the performance of fisheries cooperative societies in Goa from members' perspectives. The research paper also identifies the challenges faced by the members of the fisheries co-operatives and tries to assess the level of satisfaction of members with respect to various services provided by the fisheries cooperative societies. The study is based on both primary and secondary data. The primary data was collected through structured questionnaires by interviewing the members of the fisheries cooperatives and officials of the Directorate of Fisheries, and secondary data were collected by referring to the annual reports of the cooperative societies. The primary data was collected.

*Research Scholar, ** Associate Professor in Commerce, *** MCom Student
Government College of Arts, Science & Commerce, Khandola- Marcela, Goa

The study is empirical and valuable findings are drawn using descriptive statistics. The study provides an overview of the efficiency of fisheries cooperatives. It will allow the various stakeholders to evaluate whether the cooperatives have been able to achieve the objectives, the essence, and justify the basis for their formation.

Keywords:

Challenges, Co-operatives, Fisheries, Performance, Satisfaction.

1. Introduction :

Fishing stands oldest known occupation and is considered a popular recreation activity, competitive sport, and a spiritual, cultural experience. Fish is regarded as the food source for human beings from very early on in our development as a species. Being a source of protein, essential vitamins, and minerals, fish is delicious and a staple part of any balanced diet (Mishra, 1987). Understanding the importance of fish in our daily meals led to the rapid transformation of fishing activity into a significant occupation. Fishing has a considerable influence on cultural and religious development worldwide. It contributed significantly towards the uplifting of socio-economically backward sections of the societies. In a country like India, fishing contributes to economic growth by providing employment and contributing to gross national product and foreign exchange earnings.

1.1 Overview of Cooperatives :

A Cooperative is an association of people who form groups independently and manage them to meet their everyday economic, social, and cultural needs and goals. At times, cooperative societies in different sectors serve as the primary sponsor to the country's economy by helping the economically backward communities elevate their standard of living.

The cooperative movement in India has its origin in agriculture and allied sectors. Cooperatives in the post-independence era proved themselves as one of the significant contributors to the socio-economic development of backward sections of the country.

The cooperative movement was launched in the Union Territory of Goa, Daman, and Diu in 1962 to uplift weaker sections. Soon it spread itself over various sectors such as agriculture, consumer, dairy farming, housing, etc. To cater to the needs of different cooperative societies, the state government

established a department of cooperation, i.e. office of the registrar. Initially, the state had adopted Maharashtra State Cooperative Act 1960. But subsequently, in the year 2001, the state of Goa established its law in the form of ‘The Goa State Cooperative Societies Act, 2001’.

1.2 Fisheries in India:

In India, the marine fisheries sector employs nearly two million fishers. The country earns more than 45,000 crores by exporting marine products to more than 100 countries, mainly the Usa, East Asia, and the European Union. India is the second-largest fish producer and the second-largest aquaculture nation globally (Department of Animal Husbandry, Dairying and Fisheries Ministry of Agriculture & Farmers Welfare, Goi, 2019).

In India, the fishing industry is classified into two major categories, marine and inland fisheries. In addition, these are further sub-divided into two major categories: capture and culture fisheries (Goi, 2019). The fisheries sector has witnessed impressive growth from a traditional subsistence activity to a well-developed commercial and diversified enterprise. It has played a pivotal role in economic development by its potential contribution to employment generation, income augmentation, addressing food and nutritional security concerns, and foreign exchange earnings (Sabat, 2008). The country has vast potential for fisheries given our long coastline of 8,118 km apart from the inland water resources. According to estimates for 2017, the sector provided about 13 million jobs (4.1 million in aquaculture, 6.3 million in inland capture, 1.9 million in marine capture, and 0.5 million for others), with women representing about 32 percent of the people employed in the sector.

1.3 Fisheries in Goa :

Goa has a coastal length of 104 km and comprises two coastal districts, namely, South Goa and North Goa, with 39 marine fishing villages, of which the majority (23) are situated in South Goa. The State has 2,189 fisher families with a population of 10,545 (Marine Fisheries Census 2010). The estimated value of marine fish landings in Goa was Rs. 920 crores at the landing center and Rs. 1312 crores at the retail center in 2018 (Frad & Cmfri, 2019). The Fisheries sector contributes to 2.5% of the actual gross domestic product and 17.1% of Goa's agriculture (Faria, 2019).

Since Goa is a well-connected state with ports, airports, railways, and

national and state highways, it facilitates quick transportation of fish within the state and other states (Jangam, Subramanian, Wadekar, & Patil, 2018). In Goa, the sale of fish in the wholesale and retail fish markets varies approximately between 1.5 to 2 crores business per day (Faria, 2019). Goa occupies the third position in fish consumption in the entire country after Lakshadweep and Kerala (Department of Animal Husbandry, Dairying, and Fisheries, 2019).

The state's contribution to the total marine fish landings of the country was 1.85%. Currently, there are about 29 Inland Fish Landing centers and 37 Marine Fish Landing centers in Goa (Directorate of Fisheries, Govt. of Goa).

1.4 Fisheries Co-operatives :

The Fisheries Co-operative Society is organised to assist the actual fish producers and the fishers. Fisheries Co-operatives are societies governed by a separate set of rules to provide government assistance on their principles of self-help and management. The fisheries co-operatives in India are broadly divided into 3 tiers i.e.

- i. Primary co-operatives
- ii. District or regional federation
- iii. State-level co-op federation

Primary co-operatives are meant for villages and groups of villagers. It is expected to function as a multi-purpose agency for providing credit, supplies, guidance, and supervision of loans utilisation, fish catch, and its transportation to marketing centers. Primary co-operatives are involved in the provision of small loans to the fishers. Very few societies are engaged in the construction of fishing boats and processing. The district or regional federation is expected to have a better role in marketing, and because of this purpose, it is located in larger towns. Most of the federation's functions are similar to primary co-operatives but on a more extensive scale and cater to a more comprehensive section in assisting members of primary cooperatives. Apex federation is a state-level organisation providing support to primary and district-level co-operatives. Through its location, size, capacity to command resources of men and market, it is expected to provide leadership to the entire movement.

A separate wing of the Department of cooperation works in several fisheries departments. Cooperation banks provide credit, while the fisheries department provides share capital assistance, subsidies, and loans for different activities. The Agriculture Refinance and Development Cooperation (Ardc) undertake

various projects through cooperatives and cooperative banks and provides a guarantee for amounts given by the State Government.

In the last few years, tremendous development has taken place in the fishery sector. The Government of India has acknowledged it as a thrust area for food and exports. The marine fishery emphasizes deep-sea fishing and the mechanisation of fishing, including introducing larger vessels, landing and berthing facilities, and constant efforts to improve infrastructure and promote exports.

2. Literature Review :

Agu-Aguiyi et al. (2018) determined the performance of cooperative fishery societies in the reverse state of Nigeria through data collection from 360 cooperative fishers. They revealed that anglers faced various problems, including pollution, climate change/ bad weather, financial challenges, and the high cost of fishing tools. Therefore, the researcher recommended that the formal cooperative system of fish producers be put in place to improve fish production in the area. Karuppusamy et al. (2016) analysed the socio-economic conditions and the problems faced by the fisherfolk by considering a sample of 200 respondents. Significant problems of fishers were identified as selling of fish, price-fixing, marketplace & finance for investment.

Mathews Neethu (2018) evaluated the impact of various Government schemes to improve the socio-economic status of marine fisherfolk and assessed the awareness of the maritime fishing community regarding the various social security measures implemented by the Government in Kerala and revealed that even though the fishers are not much educated, they are aware of the schemes and aid provided by the government. Shah Deepak (2018) identified ways of increasing the membership and examined the reasons behind fisherman facing problems like non-availability of quality seed, healthy seed, and contaminated water with chemical, technological up-gradation, etc. The study found that there was a need to educate fishers concerning public information (awareness) related to modern and mechanised fishing techniques. Thakur Ankit (2018) assessed the status of the fishers cooperative, SHG, and fishers groups in Buster district of Chhattisgarh through a sample of 74 respondents and found that most respondents benefited multi-fold by dairy agriculture, animal husbandry as well as fisheries.

Rosen, Nina (2017) aimed to add to the knowledge of small-scale fisheries management by exploring the opinions of fishers that allow for the successful transition from an uncooperative community to a maintained fishing

cooperative and showed that the movement towards sustainable fisheries management combined with a sustainable economy provides the ability to invest in other infrastructure.

Faria Sanchiliana et al. (2016) comparatively analysed the annual and compounded rising rate of fish production in Goa. It also studied the jetty-wise, fish variety-wise, and marine and inland fish catch in Goa. The study found that the Gross domestic product, i.e. Gdp of Goa, is highly impacted by the contribution done by the fisheries sector in Goa.

Odetola S.K et al. (2015) determined the impact of cooperative society among fish farmers. They suggested that the government should supply credit to cooperative farmers, and also, there should be campaigns to motivate the rural farmers to increase participation.

Tyagi L.K et al. (2014) analysed the role of the fishing cooperative in implementing fish conservation measures by considering case studies from two reservoirs of Orissa. An index was prepared to measure the performance of cooperative fishing societies. The findings revealed that the performance of both cooperatives differed significantly.

Tyagi. L.K et al. (2013) examined the internal functioning of the fishing societies by interviewing members from 58 fishing cooperative societies in three states of India and revealed that the overall functioning of the fishing cooperatives was high in Himachal Pradesh and Madhya Pradesh and low in Uttar Pradesh. Upadhyay et al. (2013) evaluated the performance of primary fishery cooperative society in Tripura by collecting secondary data related to 144 fisheries societies. The study found that the performance of fishermen cooperatives in Tripura was not encouraging because majority of them were dormant, the distribution of the work resource amongst the cooperative was skewed, and the contribution of cooperative in the production of fish and fish seed in the state was relatively low. Nair Smitha et al. (2012) evaluated the performance of a primary fishing cooperative society and revealed that the version of the selected cooperative society has infused a sense of belongingness among the fisherfolk members. Fujita R. M. et al. (2010) adopted a cross-scale integrative approach to identify potential barriers and bridges to using cooperative strategies to improve the sustainability of small-scale U.S. fisheries. The researcher concluded that cooperative strategies could help managers and stakeholders of smaller-scale fisheries complement existing regulations and overcome many current fishery management challenges.

Kumar k. (2008) attempted to understand the domestic marketing of fish in India through thirty fishermen and randomly selected five market intermediaries. The study emphasized the need for formulating a uniform market policy for easy operation and regulation so that fish production can be efficiently managed and delivered to the consumers, ensuring at the same time remunerative prices to the anglers.

Sapovadia Vrajlal (2004) highlighted the strengths and weaknesses of present fishers' cooperatives and suggested measures to overcome them. The study highlights that fishers' cooperative is a tool for socio-economic development and that cooperatives can enhance production, processing, storage, transport capacity, and backup finance needs. Thus, cooperative organisations can compete with International Corporations by adopting professional management skills and collective strength.

Baticados et al. (1998) examined the factors influencing the success or failure of fishing cooperatives based on the cooperative's origin and background, membership, management, and economic factors. The study found that specific aspects related to origin and background, membership, management, and economic factors affect the success of cooperatives. The study also highlighted that most cooperative members were willing to assume responsibility in managing fishery resources but apathy and lack of advocacy and lobbying skills prevent the members from acquiring control and using rights over fishery resources. Poggie John et al. (1988) identified factors influencing the success of fishers' cooperative in Ecuador. The study analysed several items reported in the literature that could be associated with the victory and failure of this type of organisation. The study suggested that both styles, i.e. management and social solidarity styles, are differently related to the success of mariculture and fish capture cooperatives.

3. Research Gap :

Fishing cooperative societies are an essential institution at the grassroots level, having a broad presence in the inland and marine fisheries sectors. Though cooperatives have been a subject of study and debate for a long time, especially in the agriculture sector, few studies have been done on fishing cooperatives. Further, most of these studies have focused on production, marketing, and financial aspects (Tyagi, 2014). Hence, this study focuses on examining the problems faced by the members of fisheries cooperatives in Goa. The study also attempts to assess the satisfaction level of the members with respect to the services provided by the fisheries cooperatives.

4. Research Questions :

- i. What are the problems faced by the members of fisheries cooperatives in Goa?
- ii. Are the members satisfied with the services provided by the fisheries cooperatives?

5. Research Objectives :

- i. To examine the problems faced by the members of fisheries cooperatives in Goa.
- ii. To assess the satisfaction level of the members with respect to the services provided by the fisheries cooperatives.

6. Research Methodology :

The study is based on both primary as well as secondary data. Primary data was collected from the members of the selected fisheries cooperatives. There are 14 fisheries cooperatives registered in the state of Goa. For this study, only 7 fisheries cooperative societies were selected. The selection was based upon the number of years since the registration of the cooperative society. Only those cooperatives that have been active for the last 8 years have been considered for this study. Cooperatives that have become dormant were excluded from the purview of this study.

Structured questionnaires were used as a tool for the collection of primary data. The questionnaires were distributed among 100 members, out of which responses were received from 57 members only. Hence, the sample size for the study is 57 respondents. The data collected for tabulated and presented using descriptive statistics. The 7 societies selected for this study are:

- I. Mandovi fishermen marketing cooperative society.
- Ii. Akhil Gomantak harkara sahakari saunstha ltd.
- Iii. Xapora fishing cooperative society.
- Iv. Zuari fisherman marketing cooperative society ltd. Vasco-da-Gama, Goa.
- V. Vasco fishing boat owners being cooperative Societies ltd, Vasco-da-Gama
- Vi. Old Cross Fishing Canoe Owner's Cooperative Society ltd., Kharewado, Vasco
- Vii. South Goa mechanised boat owner's cooperative and marketing society ltd.

7. Discussion And Findings :

Table 1: Demographic profile of the respondents

Age (Years)	Frequency	Percent
18-20	1	1.8
21-40	21	36.9
41-60	27	47.3
Above 60	8	14.0
Gender	Frequency	Percent
Male	57	100
Female	0	0
Location	Frequency	Percent
North Goa	24	42.1
South Goa	33	57.9
Area	Frequency	Percent
City	28	49.1
Village	29	50.9
Education Qualification	Frequency	Percent
Ssc	27	47.4
Hssc	10	17.5
Graduation	7	12.3
Post-Graduation	13	22.8
Annual Income (Rs.)	Frequency	Percent
250000	5	8.8
250000 to 500000	12	21.1
500000 to 750000	16	10.5
Above 750000	34	59.6

Source: Author's Compilation from primary data

Table 1 shows the demographic profile of the 57 members of the fisheries cooperative societies who were interviewed for this study. Majority of the respondents, i.e. 47.3% and 36.9%, belong to the age groups of 41-

60 years and 21 to 40 years, respectively. All the members interviewed for this study were males indicating a substantial gender disparity in this sector. The sample had considerable representation from both the districts, i.e. North Goa (42.1%) and South Goa (57.9%). The sample is adequately divided between fishermen living in urban and rural areas. Almost half of the respondents were Matric pass or less than that, indicating that majority of the fishermen seem to have low education. Around 60% of the respondents have an annual income of more than Rs.7,50,000. Only approximately 9% of fishermen earn less than Rs.2,50,000 in a year.

Table 2: Members' perspectives about cooperative society's functioning

	Frequency	Percent
Functioning effectively	39	68
Not functioning effectively	18	32
Total	57	100

Source: Author's compilation from primary data

Table 2 shows members' agreement towards the efficient functioning of their respective fisheries cooperative society. 68% of the respondents agree that the fishing cooperative society has been functioning effectively.

Table 3: Attending General Meetings conducted by the cooperative society

	Frequency	Percent
Regularly	23	40.4
Sometimes	25	43.8
Never	9	15.8
Total	57	100

Source: Author's compilation from primary data

Table 3 indicates the level of participation of the members in the functioning of the cooperative society, which has been assessed by identifying the members' frequency of attending the general meetings of the fisheries cooperative society. As per the data, around 40% of the members have participated in the meetings regularly, whereas about 44% of the members sometimes attend the meeting. Only a tiny portion, i.e. 16%, of the respondents, never attended the meetings organised by the cooperative societies.

Table 4: Type of activities performed by the cooperative societies

Activities	Frequency	Percent
Marketing of fish	26	45.6
Supply of fishing inputs	12	21.1
Provide training or technical of fishing	12	21.1
All of the above	7	12.2
Total	57	100

Source: Author's compilation from primary data

Table 4 indicates that most of the fisheries cooperative societies undertake activities related to the marketing of fish. Other than this, some cooperative societies supply fishing inputs, while some provide training on technical aspects of fishing. Only 12% of the members agree that their fisheries cooperative society is involved in all the activities listed such as fish marketing, supply of fishing inputs, and provision of training for technical purposes.

Table 5: The descriptive statistics for problems faced by members of cooperative fishing society

Problems	Mean	Std. Deviation
Lack of infrastructural facility	3.8947	.99434
Lack of training for members	3.8421	.77435
Non-availability of funds	4.3158	.80529
Lack of cooperation among members	3.3509	.85547
Non-availability of ice	2.8421	.92175
Spoilage of fish	2.6140	.94026
Storage problem	2.8246	1.13583
lack of consumer demand	3.3333	1.25831
lack of market space	3.6667	1.17006
Insufficient catch	3.9474	1.05933
lack of transport facility	3.5965	.75261
Low price offered by buyer	4.1579	1.01400
Fluctuation in price	3.8947	.81688
Inadequate demand	3.5439	1.10308
Delay in payment	3.6667	1.53917
Suitable market not available	3.9474	1.12474
Variations in size of fish	3.6316	1.06287

Source: Author's compilation from primary data

Table 5 highlights the challenges faced by members of the fisheries cooperative societies. The mean value is highest for problems such as the non-availability of funds and the buyers' demand for low prices. Besides these, the significant issues faced by the fishers are lack of infrastructural facility, lack of training, lack of market space, short catch, lack of transport facility, fluctuating prices, inadequate demand, delayed payments, non-availability of suitable market, and variations in sizes of fishes. The agreement level for the other problems listed ranged from disagreements to neutral, indicating that those are the aspects where the issues are considerably less. But the standard deviation in case of delayed payments, inadequate market space, insufficient consumer demand, and storage problems is higher, indicating high variations in the responses towards these variables. Hence the research implies that the levels and range of issues regarding these aspects vary across the members, and therefore it cannot be generalised.

Table 6: The descriptive statistics for satisfaction with the performance of cooperative fishery society

	Mean	Std. Deviation
Supply of fishing material, e.g. net hook trap belt	3.4211	.98102
Hiring services on fishing equipment, e.g. boat, engine	3.5614	1.03540
Provision of credit facilities	2.9825	1.42040
Provision of storage facilities	2.7193	1.38557
Renders extension services on modern method of fishing	2.3509	1.06051
Renders advisory services on fishing safety	3.1053	1.11298
Felicitation to students	3.5789	1.34891
Fishing regulations that regulate the fishing activities of the fishermen	3.8596	.95316

Source: Author's compilation from primary data

Table 6 indicates that the level of satisfaction of the members with respect to the services provided by the fisheries cooperative is somewhat moderate and identical across all the variables indicating that the members are slightly satisfied with the performance of the fisheries cooperative society but not completely satisfied, and hence there is a huge scope for improvement.

8. Suggestions :

Fisheries cooperative societies must play an active role to help fishers face the challenges they face in the business.

The fisheries cooperatives should also improve their performance by providing better and more efficient support for the fishermen in terms of both, financial and non-financial areas.

9. Conclusion

The fisheries sector provides livelihood to numerous families across India, especially Goa. As such, fisheries cooperatives can have a crucial role in making the industry more efficient. This study attempted to evaluate the significant challenges faced by the fishermen and their level of satisfaction towards the performance of the cooperative society. The results indicate that the fishermen face several of the challenges listed in the study, and the satisfaction level of members towards the cooperatives is not very optimistic. Hence, there is a need to improve the operational efficiency of the fisheries cooperative societies.

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Role of Fisheries Cooperatives in Improving Livelihood of Fisher folks: A Case of Mandovi Fisheries Cooperative Society

Jadhav Namrata B.*

Abstract:

Fisheries Cooperatives societies are considered the most critical organisations in the field of non-coastal and seawater. The 'Fisheries Cooperative Movement carries out the transformational step in fisheries. The main motto of this movement is to avoid exploitation of its members and improve the fisher folk's economic condition. Goa contributes to about 1.85 % of our country's total marine fish landings. There are various benefits of joining the fisheries co-operatives: sustainable fishing, working towards a common goal, participation in problem-solving, etc.

There are 14 fisheries co-operatives societies in Goa. This study is carried out to recognise the contribution of fisheries co-operatives in improving the livelihood of fisher folks. The fisheries co-operatives are run under specific policies and procedures to maintain the interest of their members. The fisher co-operatives provide a secure market to their members, provide credit facilities, and provide various schemes to fishermen. The Mandovi Fishermen Marketing Co-operative society is the biggest among all the other fisheries co-operatives societies in Goa and hence has been selected for the study. The research work is a case study based on primary data. The data was collected by interviewing Mandovi Fishermen Marketing Co-operatives Society's managerial personnel. This paper presents the contribution of the fisheries co-operative in improving the livelihood of fisher folks in the state of Goa. The studies reveal that Mandovi Fishermen Marketing Cooperative Society is involved in many organisations' departments, and they also generate their income through various departments. Still, they have poor awareness and lack financial support.

* Student:M.Com Part I, Government College Arts, Science and Commerce, Khandola, Goa

Keywords:

Co-operatives, Fisheries Cooperatives, Fishermen, Marketing.

1. Introduction to Co-operatives:

A Cooperative is a group of people who come together to meet their individual goals. It has done wonders for the economy. The government of India started the co-operative movement in 1904. Nowadays, there are different co-operatives formed for various reasons. Not every co-operative needs to have the same goals or motives. They can be different based on their grounds to begin. Cooperative is not only for the small sector, but it can also be formed for a big reason. Some help people find their hidden talent and use it for social and personal use. The co-operative is neither private nor government. The procedure includes a group of people coming together. E.g., the Fisher co-operative helps fishermen. The co-operative society is not for other people but only for its members. One of the co-operatives' primary and most essential functions is coordinating well, supervising well, and providing the required services. There are various other types of co-operatives like consumer co-operative society, producer co-operatives society, co-operative credit societies, housing co-operative society, co-operative marketing society, co-operative farming societies, etc.

0.1. Evolution of Co-operatives in Goa:

Goa is a tiny state with a well-diversified population. In 2019 there were around 4,805 registered co-operatives. Before 1962 co-operatives in Goa were registered and governed under Maharashtra State Cooperative Act 1960. After declaring Goa as a state, Goa and its Co-operative acts: the Goa Cooperatives Societies Act 2001 and Goa Cooperatives Societies rule in 2003 but was applied/carried out in 2008. In Goa, there are different co-operative acts for other reasons to be followed by each suitable relating to their areas.

0.2. Growth of Co-operatives :

As of 31 March 2020, there were 5078 Co-operative societies registered in the state for the welfare of the public as per (Goa Economic Survey 2020-21). Co-operatives societies show an increasing trend in the growth of deposits. The annual growth rate of deposits in 2017-18 per cent growth over the previous period is 21.62 %, and in the 2019-20 per cent growth

over the last period is decreased by 4.46 %. The annual growth rate of advances in co-operative societies in the year 2018-19 per cent growth over previous period increases and 2019-20 the percentage growth over previous period is -13.36% it decreases.

Table 1: Growth And Status of co-operative societies in Goa during 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
No. of Co-operative Societies	4,430	4,632	4,805	4,952
Members	11,74,613	12,12,743	11,42,936	11,77,753
Share Capital	313.5062	337.4477	482.92	448.23
Deposits	5195.6010	5310.3270	6460.38	7020.20
No. of Societies with Profit	2381	2584	2,634	2921
No. of societies with Loss	613	601	695	750
Total no. of Societies with No profit No Loss	1453	1447	1,476	1281

Source: Compiled Using Secondary Data From Statistical Hand Book, Directorate of Planning Statistics And Evaluation Government of Goa.

0.3. Introduction to Fisheries :

Fisheries is nothing but the process of catching the fish and selling it into the market. In the fisheries, there is more risk factor for fishermen. Many people depend on fisheries all around the world. There are some co-operatives and government offices that help the fishermen.

Table 2: Status of Fisheries in Goa

Item Unit	1987-88	2017-18	2018-19	2019- 20
Marine fish catch				
a) Quantity (Tonne)	27,210	1,18,465	1,15,459	71,592
b) Value (Rs. In lakh)	1,050	1,46,083	1,49,879	1,10,412
Inland fish catch				
a) Quantity (Tonne)	1,430	5,542	4,829	3,617
b) Value (Rs. In lakh)	161	10,662	9,459	6,634

Source: Compiled using secondary data from Goa economic survey – 2019 - 2020.

0.4. Fisheries Cooperatives :

In India, the Fisheries Cooperatives movement began in 1913, when 1st fishermen's society was organised under the name of "Karla Machimar" (fishermen) co-operative society in Maharashtra (Tyagi, 2013). As India is a Peninsula country, the number of fishermen near the coastal area is quite large. So, they had made their co-operative in their located regions through which they can help each other hence this is one of the reasons that there are many fisher co-operatives in India. The Fisheries co-operative plays a vital role for the benefit of the fishermen association and significantly develops and helps to improve their financial conditions.

As of 2017, there was one National Federation, 23 state-level federations, one regional federation, 129 District level federations, and 18144 primary fishery societies functioning in India. Together, the membership in all these societies is 29,06,552 (Ambilikumar, 2017). The fisheries co-operatives are involved directly in improving the fisherfolk/fishermen physically, economically, and socially (Trivedi, University of Lucknow).

In rural areas, fisheries co-operatives help in sustainable development. The major development agencies such as Food and Agriculture Organization (FAO) and The World Bank advocate co-operatives as an institutional focus for the development programmes (Poggie et al., 1988).

Table 4: Showing Growth of Fisheries Co-operative in Goa

	2015-16	2016-17	2017-18	2018-19
No. of Fisheries Cooperatives	8	13	14	14
No. of Members	1054	1075	1084	1096
Share Capital	0.9650	0.02	0.02	0.02
No. of Fisheries co-operative societies with Profit	7	7	3	3
No. of Fisheries co-operatives with loss	0	0	11	11
Total no. of fisheries co-operative societies with no profit no loss in Goa	1	1	0	0

Source: Compiled using secondary data from Statistical handbook, Directorate of planning statistics and evaluation Government of Goa.

0.4.1. Fisher Folk :

Fisherfolk plays a vital role in the fisheries co-operative. Fisherfolk is the people who reside in the seashore areas. Fishing is the activity that provides a better

livelihood for the fisherfolk. The fisherfolk is the one who catches the fish. Fisherfolk, the name itself, talks about fishing activities.

0.4.2. Livelihood of Fisher Folk :

Livelihood means getting or acquiring the individual necessities for life existence like water, food, shelter, clothes, and other fundamentals to life, like education, health, opportunity, security, and freedom (Spence, 2005). Livelihood refers to securing the necessities of life. The livelihood of fisherfolk is risky as here climatic condition plays a vital role. Some fisheries co-operatives give ration at a reasonable price to fisherfolk. Most of the fisherfolk stay in a coastal area.

1. Review of Literature :

Mahanayak, Panigrahi (2021) examined the status of fishers cooperatives in India. The paper reveals that although fishers co-operatives have enough potential in the fisheries sector in India, their progress is not uniform in all parts of the country.

Thrishma, Veerakumaran (2020) evaluated the financial performance of MATSYAFED. The study was conducted for ten years, from 2009-10 to 2018-19. The study revealed that the MATSYAFED was efficiently managing its funds to various schemes and programs for the development of the fishers community.

Wasave et al. (2019) attempted to find the roles of the marine fisheries co-operative societies of Maharashtra. The study revealed that marine fisheries co-operatives of Maharashtra were providing different facilities to their members. Jeyanthi et al. (2018) compared the institutional development and efficiency of two fishermen co-operatives societies viz., Njarakkal (society I) and Manassery (society II) in Ernakulam district, Kerala. The study concluded that fishermen co-operatives play a significant role in improving the livelihood of fishermen and the many activities of society.

Mathews (2018) assessed the awareness of the marine fishing community, which the government implemented. It was found that the fishermen were utilising the assistance whatever they get through the fisheries cooperation societies.

Ambilikumar (2017) assessed the extent to which the members of fisheries co-operatives participate in the societies' activities, identifying the reasons for participation or non-participation and knowing the benefits offered by the FDWCS to their members. The study found that the fishermen join the societies

with many expectations as members.

Deacon (2016) attempted to find out about fishery management in California. The researcher examined that the article contains economics of fishery co-operatives and evidence on the performance of fisheries co-operatives in developed and developing countries.

Thompson et al. (2014) study were carried out on the fisheries co-operative. The researchers found that the traditional foodways and livelihoods take advantage of prodigious natural capital and that this indigenous co-operative offers potential to improve the fisher's quality of life.

Tyagi et al. (2014) studied the Hirakud and Surada reservoirs. The study revealed that the performance of the co-operative fishing society at the Surada reservoir was high in implementing fish conservation and resource enhancement measures. In contrast, it was low in the case of both the societies of Hirakud reservoirs.

Upadhyay et al. (2013) analysed the status of fishermen co-operatives in Tripura concerning water holdings and fish seed production. This Study is Empirical. The researchers have made use of both primary and secondary sources of data. Collected data were analysed using different descriptive statistical tools. The researcher concluded that the functioning of the fishermen co-operatives in Tripura, like other states of the country, is not encouraging because out of a total of 144 numbers, 26% are defunct, and 20% are dormant.

Tyagi et al. (2013) assessed the fishing co-operatives' internal functioning established and promoted under different scenarios. The researcher found that experience of the organisation, collective mobilisation, and participation in the fisheries management, functioning of their co-operative societies may be high at this location.

Under their current management, Unal et al. (2008) evaluated the success or failure of six fishery co-operatives in Turkey. The study found that Performance was below full potential due to internal factors such as lack of solidarity and qualified business management skills, external factors relating to weak legislative support by the government, the tax system and the lack of training.

Gupta Pandit (2007) assessed the role of government in framing policies and management of selected fisher co-operatives. This study was conceptual. The researcher concluded that though members of both societies have a poor standard of living, members of Naliapur PFCS are better off than their Sakhai counterparts.

Nair et al. (2004) identified the performance of primary co-operatives in the marine fisheries sector and tried to rank the societies in their performance. The researcher revealed that Arnala Fishermens Sarvoday Sahakari Sanstha ltd. got the first rank among all the societies surveyed for its overall performance.

Sapovadia (2004) investigated the strengths and weaknesses of present fishermen co-operatives and suggested ways to overcome them. The study reveals that more training and development agencies are required to train and assist fishermen.

Baticados et al. (1997) highlighted the importance of fishing co-operatives in managing fishery resources. The researcher found out that a lack of advocacy and Lobbying skills prevent the members from acquiring control and using rights over fishery resources.

2. Research Gap :

The researcher has conducted a study on Fishery management (Deacon, 2016), Success and failure of fishery co-operatives (Unal et al., 2008), Performance of fisheries co-operatives in India (Nair et al., 2004), Impact of fisheries co-operative societies on the livelihood activities of marine fisherfolk (Mathews et al., 2018), the performance of primary fisheries co-operative (Ambilikumar, 2017).

Little work had been done on Mandovi Fisheries Cooperative in Goa. Hence a study was undertaken.

4. Research Problem :

The study was conducted to know how fisheries co-operative societies contribute to improving the livelihood of fisherfolk – A case of Mandovi fisheries co-operative and considers the management of fishing co-operative as the respondent of the study. The research provided valuable insights for potential fisheries co-operatives by highlighting the benefits of cooperation and teamwork and enabling the stakeholders to draft effective policies. As a researcher, I learned that Mandovi Fishery Cooperative doesn't provide any schemes to their members, so they need to add this.

5. Research Question :

What is the role of fisheries co-operatives in improving the livelihood of fisher folks, and how do fisheries co-operatives will help fishers?

6. Research Objective:

To study the contribution of fisheries co-operatives in improving the livelihood of fisher folks.

7. Research Methodology :

The study was conducted in the state of Goa for November 2021 by using both primary and secondary data sources.

The primary data is used by interviewing the directors and staff of fisheries co-operative. Secondary data was used by using Annual data of the fisheries co-operative and Published research paper. The researcher selected Mandovi Fishermen Marketing Cooperatives Society Ltd. for the study because this fisheries co-operative is the biggest fishing co-operative society in Goa. The tool used for collecting data for the research study was conducted by the researcher Mandovi fishermen marketing co-operative society ltd.

8. Discussion And Findings :

8.1. Introduction to the Mandovi Fishermen Marketing Cooperative Society Ltd.

The Mandovi Fishermen Marketing Cooperative Society Ltd. was established on 27th January 1987. This co-operative society is one of the biggest and most known fisheries co-operative societies compared to other fisheries co-operatives in Goa. These fisheries co-operative also felicitates the member's child who secures more than first-class in their board exams.

There are 149 members as of 31st March 2021. They received many awards, like in 2004 they got the "Excellence Award", 2016 "Won Best Society Awards" and the "Goa Raj Sahakari award". They have 220 boat/trollers. One owner of the troller has 2/3 boats. Mandovi Fishermen Marketing Cooperative Society ltd. has many departments. This society is in Malim Jetty, Betim, Bardez, Goa.

8.2. Goal Towards Fishermen :

The fisheries co-operative goals towards fishermen are to provide a high standard of living and uplift fisher folk communities.

Cooperative encourages no profit/no financial facilities and helps in water, electricity, mechanism.

8.3. Profile of Mandovi Fishermen Marketing Cooperative Society :

Various departments that come under the Mandovi Fishermen Marketing Cooperative Society are as follows:

A. Boat Department:

They have a different boat department where boat owners give their ships to fishermen for fishing. The co-operative society looks after the fishermen's boat and provides the boat's space on the shore.

B. Ration Shop Department:

In this department, they give ration to fishermen at a reasonable price, so the fishermen's money gets saved. The co-operative helps its members by providing food grain and food supply and ensuring no excess supply is provided. The co-operative gives this supply to their membership at a very reasonable rate and low price compared to the market price.

C. Petroleum Department:

Petrol or diesel is one of the essential and daily requirements to run the boat. So, the fishermen have to buy the petrol, but the price is not pocket friendly. So, the co-operative play a significant role by providing the petrol at a significantly lower rate so that anglers can buy the petrol and continue their fishing activities. Each member gets around 16-litre petrol.

D. Spare Part Department:

In this department, they provide the fishers with the spare needed for the boat's repairment and make available spare parts to the fishermen as they don't have to go to market.

E. Nut And Bolt Department:

Nut and bolt are one of the small but essential fishery co-operatives that provide these facilities to the fishers. So he can continue with his activities.

F. Net Binding Department:

Net binding helps the fishers with the torn net. Here the fishers give their torn net to this department and department repair and give fishermen net so that he can have a good catch.

G. Ice Plant Department:

Ice plant is considered the most important as the fishermen need a lot of ice to keep their catch fresh to fetch a reasonable price. The co-operative

provides the ice blocks to the fishers at a lower price than the market price to save some money for himself. Ice takes 24 hours to freeze.

H. Workshop Department:

The workshop department repairs the boat and trawler in the off-season so that the fishermen do not get disturbed in the middle of the fishing season. They also provide technical help so that they can have a good catch.

8.4. Functions of Mandovi Fisheries Cooperative :

Mandovi Fisheries co-operatives provide a livelihood to most people living in seashore areas through smooth fishing business. It transfers technology from fisheries co-operatives to fishermen. It offers services and facilities like ice plants, cold storage, boat, ration, net binding, etc. It helps the Socio-economic development of fishers's communities' status. It Develops and promotes fisheries cooperations in the state, provides technical support, and motivates fishermen for their better livelihood. The fisheries co-operative mainly aims at giving the resources in their certain activities from farming, catching, distribution, and marketing of fish. It arranges technical guidance to the members for their betterment.

8.5. Schemes:

The Mandovi Fishermen Cooperative Society Ltd. Do not provide any schemes to their members. The plans are given to fishermen by the central government and later by the state government through the directorate of fisheries. The directories of fisheries provide many schemes to fishermen. Such as Pradhan Mantri Matsya Sampada Yojana (PMMSY) Schemes. An initiative launched by the government of India to establish a comprehensive framework and reduce infrastructural gaps in the fisheries sector.

8.6. Welfare Schemes For Fishermen:

Malim Boat Owners Welfare Trust gives 1 - 2 lakh rupees without interest to fishers, and they need to repay that money within one year without interest and if they fail to repay that amount, they are required to pay the penalty. The most important thing is that while fishing, this trust gives 3,00,000 to their family if any fishermen die.

8.7. Challenges Faced By Mandovi Fisheries Cooperatives:

The Fisheries Cooperative Society faces challenges daily, such as

water facilities, electricity facilities, trawler owners, etc. Overfishing, overexploitation of a few species of fish, Risky LED fishing are some of the problems faced by the fishery. Even the government does not provide any facilities and financial help to them.

The directors of the fisheries co-operative mentioned that the society is on lease. The fisheries co-operative has to pay from department income. Monthly they pay the rent around 35000 of campus, almost full one year they pay 23 lakhs rent to government for the area compound and almost 7 lakhs to electricity department and around 13 lakhs on the office. The fisheries Cooperative turnover is 48 crore, and they are left only with 2 lakhs in hand.

8.8. Subsidy

The Mandovi Fisheries Cooperative provide subsidiary to their members like medical expenses (Up to 2 lakh). Societies marketing facilities to fishermen help them if they are facing any loss.

8.9. Benefit of Mandovi Fisheries Cooperative:

There are various benefits of joining the fisheries co-operative. Some of them are sustainable fishing, working towards a common goal, participation in problem-solving, etc. The other benefits include petrol, diesel, ration, spare parts, net, ice, etc., which are provided at a reasonable price to fishermen compared to the market price of that particular commodity. Co-operative helps fishermen by providing them with essential goods and services.

8.10. Financial Aid For Fishermen:

The Mandovi Fishermen Marketing Cooperative Society Ltd. doesn't provide any financial aid to its members. The government offers this financial aid, and directories of fisheries handle financial aid.

8.11. During Pandemic:

In a pandemic, they suffered from huge losses because transportation was stopped. The boat owner suffers from a considerable loss. They throw around 12,00,000 fish. Everything was closed because of the pandemic, and even people didn't purchase fish.

8.12. Financial Statement of Mandovi Fishermen Marketing Cooperative Society Limited

Table 5: Trading Account of Mandovi Fishermen Marketing Cooperative Society

Particulars	2018-19	2019-20
To Opening stock	13752872.7	13183066.18
To Purchases	417045793.81	379303509.02
To Expenses	8322934.43	8150939.74
By Sales	435313435.13	401442082.12
Receipt from lathe	1958496	2281795.90
By Closing Stock	13183066.18	10675321.74
To Gross Profit	11333396.37	13761684.82

Source: Compiled Using Trading Account For The Year Ended 31st March 2020 of Mandovi Fishermen Cooperative Society.

The opening stock of Mandovi fishermen marketing co-operative society ltd has decreased by Rs. 5,69,806.52, and the percentage increased by 0.12 % compared to the previous year 2018-1A A 9.

- a. The purchases of the co-operative society have decreased by 3,77,42,284.79, and the percentage dropped from 95.80 % to 94.49 % compared to the previous year 2018-19 because there was a decrease in the purchase of spare parts, Ice plants, H.S.D.
- b. The expenses of the Mandovi Fishermen marketing co-operative society have decreased from Rs. 83,22,934.43 to Rs. 81,50,939.74 is good because expenses have decreased the year 2018-19, and the percentage increased from 1.91 % to 2.03 %, which was due to a decrease in the payment of wages.
- c. The sales of the co-operative society have decreased from Rs.435313435.13 to Rs. 401442082.12 as compared to the previous year 2018-19. Because there was a decrease in the sales of H.S.D. by Rs. (3,19,98,901.22).
- d. The closing stock of Mandovi Fishermen Marketing Cooperative society decreased from 3.02 % to 2.65 % compared to the previous year 2018-19. Because of Grocery and H.S.D.

- e. The Gross profit of the co-operative society has increased from Rs. 1,13,33,396.37, to 1,37,61,684.82, is a good sign for the Mandovi Fishermen Marketing Cooperative Society as its earnings have increased by Rs. 2428288.45 percentage rose from 2.60 % to 3.43 % as compared to the previous year 2018-19.

Table 6: Balance Sheet of Mandovi Fishermen Marketing Cooperative Society

Particulars	2018-19 (Rs.)	2019-20 (Rs.)	% Increase
Liabilities and Capital			
Share Capital	592600	613800	3.58
Reserves and Surplus	27732509.37	27699275.37	-0.12
Current Liabilities	13006548.05	18667297.19	43.52
Profit & Loss Account	8,00,763.24	17,37,259.87	116.95
Total	4,21,32,421	4,87,17,632.43	15.63
Assets			
Fixed Assets	88,43,825.07	81,18,516.41	8.2
Investments	250	250	Nil
Current Assets, Loans & Advances	16733040.52	23666783.39	41.44
Cash & Bank Balances	16555305.07	16932082.63	2.28
Total	4,21,32,421	4,87,17,632.43	15.63

Source: Compiled Using Balance Sheet As of 31st March 2020 of Mandovi Fishermen Marketing Cooperative Society.

Following interpretation from the Mandovi Fishermen Marketing Cooperative Society Ltd. can be made.

The share capital of the co-operative society has increased from 28,600 to 49,800 in the year 2019-20, which means there have been more shares issued to its members. There is an overall increase in share capital in 2019-20.

- The current liabilities and provisions of the co-operative society have increased in 2019-20 to 18667292 compared to the year 2018-19. This is due to an increase in outstanding expenses; Advances received, sundry creditors, Security Deposits, etc.
- The fixed Assets of the company have increased in the year 2019-20 to 8118516.41 from 8843825. This may be due to the purchase of new Assets.
- The current Assets of the company has also increased in the year 2019-20

as compared to the year 2018-19 Because there was an increase in sundry Debtors, Advances against Purchases, Advance tax against Appeal, Deposits, etc.

- d. The cash and cash balances of the co-operative society have also decreased to 12620180 in the year 2019-20. Because cash at a bank in saving accounts, current account, fixed deposits accounts have decreased.

9. Conclusion :

The Mandovi Fishermen Marketing Cooperative Society Ltd. is situated at Malim Fishing jetty, Betim Bardez Goa. It has made a considerable contribution to the fishery development of the fishermen. The fisheries co-operative helps the fishermen use their fishery resources for the well-being of fishermen. They have various departments suitable for the fishermen, and their facilities are much better than other fisheries co-operatives in Goa.

The Mandovi fisheries co-operative also received Awards, which will inspire other societies to improve their performance. If any member wants to do something new and get encouragement, it will lead to improvement. Many fishermen are unaware of government schemes; if Fisheries co-operative passes the information about various methods to fishermen, then it will help them for their livelihood. The fisheries co-operative mainly aims at pooling of their resources in their certain activities from farming, catching, etc. Many fishermen join the fisheries co-operative with an expectation as members so the society should provide financial assistance and make members active and try to improve members' skills. The studies reveal that Mandovi Fishermen's Marketing Cooperative Society has many organisational departments, and they also generate their income through the various departments. Still, on the other hand, they have poor awareness and lack of financial support.

10. Suggestions

- i. The members lack knowledge about fisheries co-operatives, so the fisheries co-operative should conduct awareness programmes for the fishers.
- ii. The fisheries co-operative should encourage the fishers to join the fisheries co-operative by giving them training programmes after joining the co-operative.
- iii. The Mandovi Fishery Cooperative Society should involve youth participation by giving them benefits such as participation in management decision-making providing trawlers at lower prices.

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Strengthening Cooperative Sugar Mills with AI (A case study of Smart Notifier Using Trending Technology)

Dr. Pratibha M. Deshmukh *, Dr. R. D. Kumbhar,
Vishvajit N. Yadav

Abstract:

Sugar industry is one of the largest agro based processing industry after comparing the cotton industry in India. Indian sugar industry is also a major sector to generate employment to rural population. It provides direct employment to over lakhs not only for skilled laborers but also to semi-skilled laborers in sugar factories. In the existing system there are some major problems like lack of proper planning, lack of good production management but if system analyzes the core of those entire problem is lack of communication or communication gaps. No documentation or evidences are maintained for sharing information and notification for accomplishment of day-to-day operations. Non-repudiation feature is not available in this system as logs of notifications are not maintained. The existing system used third party API'S which does not ensure security. Existing manpower is not utilizing their full skills and efforts due to various reasons including communication gaps, improper planning etc. Due to these reasons, there is lack of proper utilization of available manpower. Therefore, to overcome the major problems researcher designed the solution smart Notifier to minimize such problems.

Smart Notifier provides security and help to increase the performance in time, efforts, values and total cost of Sugar factories. It analyzes the profit of annual income and analyze performance of each department and supports making future planning and decisions. Researcher designed one AI based technology named as CHATBOT which will resolve the queries of the workers in real time environment. Also used Secure Hash Algorithm (SHA1) to secure the information inside the industry while communication and to maintain log. Machine learning

* Bharati Vidyapeeths IMIT, Navi Mumbai ** Dr. R. D. Kumbhar
Dept. of Computer KBP IMSR, Satara ***Vishvajit N. Yadav Research Scholar.

gorithm provides the ability to auto-complete words and suggests predictions for the next word with the help of performance Analyzer. These algorithms support as research methodology.

Keywords:

Sugar Factories, Sugar Industry, Smart Notifier, Communications, Artificial Intelligent (AI), Machine Learning, Tracking, Performance Analyze SHA1 (Secure Hash Algorithm 1) and ChatBot.

I. Introduction :

As it knows Sugar industries contributes significantly to the socio-economic development of rural population. Indian tradition also supports that the sugar and sugarcane is originally origin in India. Sugarcane is most important commercial crop and it occupying millions of hectares in area of the Indian Nation. Indian sugar industry is also a major sector to generate employment to rural population. Many people dependent on sugar factories and also millions of sugarcane farmers. Larger rural population is involved in cultivation of sugar, harvesting and ancillary activities in Indian Sugar factories. The sugar industry plays a leading role in global market being the world's second largest producer after Brazil, producing sugar and sugarcane. Indian sugar industry development is backbone to economic development of the rural areas through mobilizing rural resources leading to generation large number of employments.

In sugar industry there are many types of different department like cane development, power generation, production, administration, distillery, finance and so on and so forth. An according to the department there are appropriate head and in particular department there are approximately 10 - 40 employees in each department working. Communication between them is held in different ways like HOD to HOD or HOD to employee or employee to employee and vice versa or high-level management to operational level management or vice versa.

The communication between every department is done via emails, face to face or through by using electronic devices like mobile phones, intercom. According to those devices the communication is not providing security principles, i.e non-repudiation feature and these devices also not maintain the log or history details because they use third party API for

communication data or message. Also, the main issue is lack of group communicate with each other simultaneously even if done but not smoothly done this process also consumes more and more time.

Nowadays proper channel of Communication plays a vital role in any organization. Therefore, the need is to bridge an internal communication gap within an organization. Usually there is a breakdown in the way information is been sent from the sender to the receiver. This is precedent in organizations that have a top-down hierarchy. In this type of hierarchy, it can be difficult for operational level employees to obtain information regarding changes within the organization. In some cases, the employee denying that they didn't receive any message from high level authorities or any corelated authority. In organization upward, downward and horizontal informing in these ways that employee can acquire information or message. Because of improper communication channel or system amongst the employee the messages not conveyed properly on time or from the time aspect. Because of this problem in proper utilization of the manpower caused and also difficulties in managing all departments precisely. All these things reflected on reduction of total revenue, poor performance issues of an organization as well as employee and repudiation. Therefore, to overcome the major problems researcher have developed the concept smart notifier to minimize above problems with the help of smart Notifier. Smart Notifier provide services to secure communication, keep logs, alerts, notifications. Also help in monitoring and analyzing the performance of each department and making decisions for planning, management and beneficial for betterment of each Sugar Factory.

II. Review of Literature :

An increasing production and minimizing total cost in of Sugar Industry, having the scope for some generic solution to monitor and control the activities of an entire sugar industry day to day operations. As of now there is no solution exists which is specifically designed and developed as generic solution to solve the problems because of lacking in communication channels and to bridge the communication gaps with respect to all the stakeholders inside Sugar Factory. No single solution available or implemented using trending technology, which are highly integrated control and programming platform. Thus, the researchers undertaken new concept of Smart Notifier using trending technology. According to every stakeholder communication need or Sugar Industry need this system will be is easily programmable with the help of trending technology.

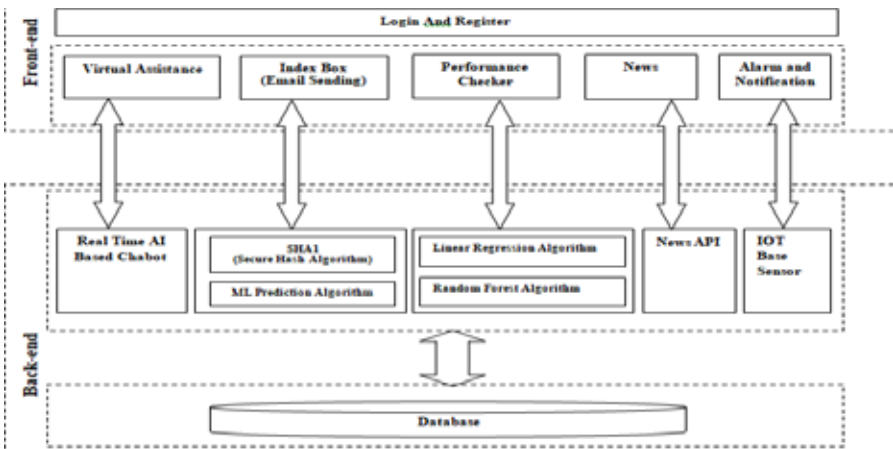
III. Problems Identified :

In India, Sugar industry is the second largest agro-based industry and it contributes significantly to the socio-economic development of the nation. But then also there are some existing problem like lack of proper planning, lack of good production management, lack of professional management, lack of utilization of man power but if analyze the core of all those problems is lack of communication. In existing system communication is done lower level to higher level and higher to lower level. For many communications exists with manually for sending messages or conveying message physically. Also, no facility for transparent communication in groups. No document generated for sharing and notification information. Non-repudiation feature not available, internal notification logs are not maintained, unable to ensure security and lack of professionalism, lacking in proper utilization of available manpower.

IV. Objectives:

1. To Understand the existing internal communication system of co-operative sugar factories.
2. To Identify the problems for internal communication in Sugar Factories.
3. To Design Smart Notifier using trending technologies.

V. Design And Implementation Process of Smart Notifier :



Technical Framework

The Purpose of this research paper is to convert manual communication

process into digital communication process among the workers working in the sugar industry as well as provide mechanism to analyze individual worker and overall sugar factory performance weekly or monthly or yearly. Let's create a web portal and android application in which system will send a mail from an official email id of the industry to individually as well as in the groups and also between the workers, employees even in all departments of the industry.

A. Web Application which consists of seven modules which are listed below:

login/Registration: Worker can login to web portal by using email id given by industry.

Virtual Assistance: Chatbot is AI based which works on real time to resolve the doubts of workers.

Email sending: It is developed by using Secure Hash Algorithm (SHA1) to secure the information inside the industry while communication and also to maintain log. used machine learning algorithm which provides the ability to auto-complete words and suggests predictions for the next word. This makes typing faster, more intelligent and reduces effort. Also, there are attach document, files and send emails implicitly by setting a timer.

Performance Analyzer: In this module it has Random Forest and Linear Regression Algorithm. Analyses the performance of each and every worker as well as every aspect of the industry accordingly and look towards production of industry. Track the communication between worker and status.

News: employee can see current affairs going in company.

Alarm/Notification: Emergency notification like fire, disasters and others

Reminder: Which reminds of meeting schedule and job task to their respective days. This web portal is totally secure with communication, flexible to use, convenient and to enable this feature for workers, employees, higher level authority they should login into the system with appropriate login Credentials.

B. The process of implementation described as below:

Step 1: Workers can login through there login credentials and if not then

they have to register first and then they can login using their official mail id and password.

Step 2: After login they are able to see the main dashboard and there will be option available in navigation bar they are following:

1. Home
2. Chatbot (Virtual Assistance)
3. Index (email sending).
4. Performance Analyzer.
5. Notification
6. News
7. Profile
8. Reminder
9. Logout

User can select any one of the options as per their requirement and can execute the task.

Step 3: The user can log out from the system after the completion of the work and it will retrieve to dashboard again.

VI. Advantages :

1. Communication is done in the faster way.
2. Trending technology features added to make the better communication among the worker. (Chatbot, virtual assistance)
3. System is more secure and ecofriendly.
4. Use of IOT sensors installation for Emergency notifier (fire, disasters).
5. Easy to understand and simple to use.
6. Use of trending technology, proper utilization of all the assets are possible.
7. Use of manpower is done properly.
8. Supports for planning activities.
9. Suitable for decision making.
10. Monitoring and controlling activities can be easily handled.
11. Capability to strengthen organization.

VII. Conclusion :

Smart Notifier is generic solution which is more effective and efficient to adopt in all sugar industries for the betterment of communication between all the employees and management or managerial users in Sugar factory. It

has ability to bring the cost effectiveness solution. It has capability to use such a digital solution to get the all advantages of latest technology. This will be step of advancement and use of trending technology in Agriculture domain. Implementation of Smart Notifier has capability to analyze the performance of each employee as well as all entire departments in present Sugar Industry. Adoption of this Notifier is capable solution for innovations, technological interventions and mechanization. It would be definitely effective and efficient solution for minimizing extra effort in organization.

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29

A Study of Strengthening Dairy Cooperatives through member participation (A case study of cooperative dairy societies in Bicholim Taluka, Goa)

Niveda Shivanath Gawas*, Ankita Anand Chari**

Abstract:

Cooperatives are business organizations owned and maintained by groups of individuals for their mutual benefit. It is a voluntary association run by its members providing goods and services at a lower cost to its members. Cooperation plays a significant role in the social development of a nation. It puts away all the social tensions and disturbances to end with the spirit of love, affection, and brotherhood. Cooperatives improve people's living standards by providing proper education and training. Dairy cooperatives consist mainly of the members belonging to the weaker sections of the community. This study aims to assess the problems faced by members of the milk dairy cooperative society in Bicholim Taluka, Goa. The period of the study is 2020-2021. The researcher has used primary data. The primary data will be collected using a structured questionnaire distributed among the members of the primary dairy cooperative societies. The study sample is 200 dairy members who are into dairy farming and supply their milk production to village level primary dairy co-operative society. The data analysis is done using appropriate tools and techniques. The findings of the study is helpful to the dairy members of the co-operative society to understand which is the most common problem which all the dairy members face; it is useful to the community to understand which are the various problems faced by the members of the dairy co-operative society.

Keywords:

Co-operatives, dairy, members, society.

*Assistant Professor of Commerce, ** M.com Student,
Post-Graduate Department of Commerce, Government College of Arts,
Science & Commerce Khandola, Marcela-Goa.

Introduction :

Cooperative societies have brought a revolutionary transformation throughout the world. They not only started a new business dimension but have been helpful in other areas also. Developed countries have a good hold of cooperatives as they have invested in the cooperative sector long ago by estimating the importance of cooperatives. (Sehgal G, 2014)

A cooperative society is with a group of people with joint responsibilities and views for developing the needy, specifically underprivileged. (A.K. Dubey, 2009) "A cooperative is an independent association of persons unified willingly to meet their mutual economic, social and cultural wants and aspirations through a jointly-owned and democratically-controlled enterprise". (V. Kumar, 2015). Indian cooperative society 1912 defines a cooperative as a society that has its objective of promoting the economic interest of its members by cooperative principles. (Netravati, 2018)

Categories of Cooperatives in India :

Several types of cooperative societies in India with different activities can be grouped into four categories.

Production Cooperatives: It mainly includes industrial and agriculture production, such as Farming Cooperatives, Industrial Cooperatives, and Processing Cooperatives.

Marketing Cooperatives: This society engaged primarily in marketing agricultural produce, such as consumer cooperatives and Agricultural marketing co-operatives.

Service Cooperatives: It provides services essential for its members, such as cooperative credit societies, cooperative banks, and housing cooperatives.

Allied Service Cooperatives: It deals with activities necessary for regular life and business of the agriculturists, artisans, etc. (V. Kumar, 2015)

Dairy Co-operatives in India :

Dairy is a vital sub-sector of Indian agriculture, accounting for nearly 17% of the output value from agriculture and allied activities. Dairy farming is a significant secondary source for millions of rural families regarding income and employment, particularly for marginal and small farmers, who own about 33% of the cultivable landmass but accounts for almost

60% of female cattle and buffaloes in the country. Compared to other farm commodities, the contribution of milk is more to the national economy. (Seilan, 2011) (Bobade, 2016).

India has made rapid development in the dairy industry during the last few decades due to several development programs launched by the Government from time to time. Dr. Verghese Kurien, the father of the White Revolution and the architect of the Operation Flood Programme, has played a pivotal role in the success of dairy co-operatives in India. (Popkar, 2016)

Dairy Co-operatives in Goa :

In Goa, the dairy processing business started in the seventeenth century, but many times a story indicates that Goa was prosperous in milk production. In Goa, the dairy processing industry started reshaping only in the 1980s, but the milk farm used to run on a conservative basis even during the Portuguese rule. The first milk farm was established at 'Dhak' in Molem, Sanguem- taluka, and its production was in the form of tinned milk and powder. Latterly, this farm was taken over by the Government and was known as 'Government Lact Farm. After Liberation in 1961, cooperative milk societies were established in 1964, mainly to grant loans for buying cattle from outside the state. But these societies were unsuccessful in running even for an era because of various reasons such as low fertility, low quantity of milk by an animal, decline in milk quality, leading to the liquidation of dairy societies in Goa. (Popkar, 2016)

In 1982, Goa Dairy adopted Anand Dairy Pattern to increase milk production through integrated cattle cum dairy development policy. In Goa, dairy co-operatives are organized as two-tier structures where 19 primary milk producers are affiliated with primary dairy cooperative societies at the village level, and primary societies are affiliated with Goa Dairy Milk Union Ltd. (Popkar, 2016)

Currently, there are 178 primary dairy co-operative societies affiliated with the producers' milk union and registered with the Registrar of Societies with a membership of 19,100.

Literature Review :

This study reviews the research paper's relevance to the present study. The researcher made a detailed search of available research papers for the above purpose. But there were very few studies on the current topic selected for

the study. However, available literature in connection with this study are discussed in detail below:

A. Seilan (2020) has studied dairy co-operatives and dairy developments in India. The secondary data was used for the study, which is collected from NABARD, a statistical statement relating to the co-operative movement in India. It was found that the number of dairy co-operative societies was more in Uttar-Pradesh, followed by Gujarat. The states in the eastern part of the country had a relatively smaller number of such societies. **Virendra Singh Sanjai Kumar Rewani (2018)** has studied milk production, consumption, and disposal pattern. The data were collected from 120 randomly selected women's dairy cooperative society members. Percentages and frequency were used to analyse the data. The researcher found that most of the women's dairy co-operative members were disposing of their milk to the dairy cooperative and were getting lower prices than other agencies. **L. Niketha, G. Sankhala, et al. (2018)** has analysed the constraints faced by the members of women dairy farmers. The study was conducted in the three districts of Karnataka. A total of six WDC forty women dairy farmers were selected randomly. It was found that the majority of the women perceived that illiteracy was the primary personal constraint, family members do not render help in household work, lack of support from family to participate in cultural and community activities. They need to solve the problems for better functioning of WDCs. **Hanan Mohamed Mahrous Wafaa Kamal Bahgaat (2017)** have analysed the technological and production determinants in small and medium production projects. Data has been collected from 40 enterprises through a structured questionnaire. Tools and techniques used in data analysis are quantitative analysis, multiple regression, one-way ANOVA, morality test using SPSS. The researcher has concluded that encouraging unregistered productive enterprises to enter the country's formal economy and facilitate loan, registration procedures, and exemption from taxes for a specified period in exchange for their entry into the country's formal economy. **Simranjit. Et al. (2017)** have focused on the satisfaction level of dairy farmers regarding milk procurement. The study has been conducted in Punjab. Data were collected from 225 dairy farmers of milkfed with the help of a question. The data analysis techniques are frequency, percentages, and chi-square tests test. The researcher has found out that 80% of farmers are satisfied with the procurement policy of milkfed and are working progressively for the betterment of their dairy farmers. **Sumanpreetkaur H.K. Verma. Et al. (2017)** has conducted a study on the knowledge level of women dairy farmers about various farming practices. Primary data were collected from selected dairy farmers through

an interview schedule with a sample of 160 women. The researcher has used SPSS to analyse the data. The research has found that women are not aware of the scientific dairy farming practices and suggested that education should be provided to such women. **Suraj Poker, Gunta Anjana Raju (2016)** has undertaken a study on analysing the growth of dairy co-operatives in Goa. The secondary data was collected from annual reports of Goa Milk Union Ltd. for 1984-85 to 2014-15. The same was analysed with the help of the fixed base index number method. The variables evaluated are the number of dairy co-operative societies, members of dairy societies, share capital, and total milk collected in (liters). and working capital. Further, it was concluded that there is positive growth in all variables except working capital. **Suraj M. Poker Gunta Anjana Raju (2015)** has conducted a study on measuring the efficiency of primary milk co-operative societies in south Goa. The secondary data was collected from the annual audited statement of 20 societies of south Goa out of 58 societies. The efficiency measurement was done using Data Envelopment Analysis (DEA), a non-parametric mathematical programming approach to frontier estimation. **R.V. Sujatha. Et al. (2015)** conducted a comparative study on milk marketing in the co-operative and private sectors in Andhra Pradesh. The period of the study is 2013-14. The data were collected through the interview method using a structured questionnaire separately for the producers and intermediaries. The researchers have identified the major constraints in milk marketing: high feed cost, inadequate prices for milk, poor credit facility, and diseases outbreak. The researchers have suggested that chilling plants, pasteurization, and dairy products processing plants have to be developed. **Sarah Yasmin and Yukio Ikemoto (2015)** have studied the participation of rural women in small-scale dairy farming activities as a means to reduce poverty in rural areas. Primary data were collected from selected rural women through an interview schedule with a sample of 50. The researcher has used statistical tools such as the multiple linear regression model, Pearson's correlation, percentages, and frequency. The researcher has found out that women's participation in dairy farming can reduce poverty in rural areas of Bangladesh. **Priyadarshini C. Gadad (2015)** has studied the pattern of milk procurement by milk producer co-operative societies, cost and return structure in milk production, and problems faced by the dairy farmers. The primary data were collected from the dairy farmers using the personal interview method through a structured questionnaire. The researcher has used tabular, budgeting, and Garrett's ranking technique to analyse the data. The dairy farmers faced the dairy farmers' production and marketing of milk, high cost of cattle feeds, lack of quality, non-availability of emergency services, low prices, and delayed payment. **Alexander T.C (2012)** has examined the operational efficiency of

providing remunerative prices to its members' farmers for their milk producers. The study period is 45 days starting from 15th September 2012 to 31st October 2012. The data were collected from both primary and secondary sources. Primary data were collected through a survey, and secondary data were collected from annual reports, audit reports, websites, and published data. The data so collected were coded.

Statement of Problem :

A review of literature has been undertaken to have an idea about the findings of the previously published studies. The results of the survey disclose the following. Most of the studies reviewed are done on dairy farmers' problems, milk marketing, enhancing milk productivity and quality, disposal pattern of milk, milk procurement system, decision-making behaviour. But no study seems to cover "Problems faced by the dairy cooperative society members. So, the attempt is made to study the problems faced by members of milk dairy cooperative societies in Bicholim taluka.

Objectives of the Study :

1. To study the demographic profile of members of milk dairy co-operative societies
2. To study the problems milk dairy cooperative societies members face in Bicholim taluka.

Research Methodology :

Universe of the study: State of Goa.

Place of the study: The present study has been conducted in Bicholim Taluka Goa.

Period of the study: The study period is from 2020 to 2021.

Data Source :

Primary Data: The primary data from all respondents was collected through a personal interview using a structured questionnaire from the 200 members of dairy cooperative societies containing questions helpful to achieve my objectives.

Secondary Data: Secondary information in the form of published work collected from various sources to understand the theoretical aspects of the subject includes various journals, research articles, etc.

Sample Size :

For the study purpose, actively working 20 dairy co-operative societies from Bicholim taluka is considered. A total of 200 respondents, 10 each from 20 dairy co-operative societies, are selected for the study. So, 200 members were taken as a respondent for the data collection. 10 questionnaire each is distributed to the members of 20 dairy co-operative society.

Questionnaire Design :

The questionnaire consists of two main sections. The first section consists of the demographic profile of the respondents. The second section consists of problems faced by the members of the dairy cooperative society composed of 20 variables. These attributes were listed, and they were asked to choose between a scale of 1 to 5. This scale is known as the Likert scale. It is used to scale the responses in the survey to get results. Scale 1 represents very high, 2 as high, 3 medium, 4 as low, and 5 as very low.

Tools And Technique for Data Analysis :

Using the SPSS (Statistical Package for Social Science), Techniques such as descriptive statistics are used to analyse the data.

Data Analysis And Interpretation :

The first objective of the study is to study the demographic profile of the respondents.

The demographic characteristics of the respondents include gender, age, number of cattle, milking cows and buffaloes, number of years, monthly income, monthly expenses, which are presented as below:

Data representing the age group of dairy members

Table no. 1., Figure No.1 : The age group of the the dairy members

Age	Frequency	%
15-25	5	2.5
25-35	28	14.0
35-45	87	43.5
45 and above	80	40.0
Total	200	100.0



Source: -primary data

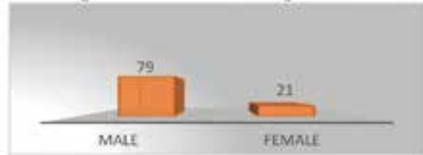
Table no.1 shows the age of the respondents wherein a large number of

respondents, i.e. 43.5% are from the age group of 35-45, 40% of respondents are from the age group of 45, and above, 14% are in the group of 25-35 and the least, i.e. 2.5% are from the age group of 15-25 as in age group don't have much knowledge of the dairy farming.

Data representing gender of dairy members :

Table no. 2, Figure no. 2 : The gender of dairy members

Gender	Frequency	%
Male	158	79.0
Female	42	21.0
Total	200	100.0



Source: -primary data

Table no .2 shows the gender of the respondents were out of 200 respondents the highest that is 79% respondents are male and 21% are female.

Data representing the number of cattle owned by dairy members

Table no. 3, Figure no. 3 : The number of cattle owned by members of the dairy cooperatives

No. of cattle	Frequency	%
Below 5	13	6.5
5-10	68	34.0
10-15	88	44.0
15 and above	31	15.5
Total	200	100.00



Source: primary data

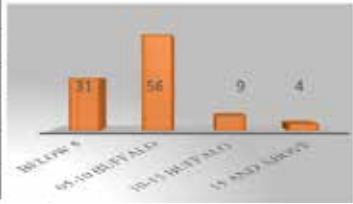
Table No.3 shows that the highest, i.e. 44% of respondents own 10-15 cattle, 34% own 5-10 cattle, 15.5% of respondents own 15 and above cattle, and only a few, i.e. 6.5% of respondents own cattle less than 5.

Data representing the number of milking cows and buffaloes owned by dairy members

From table no. 4, it can be seen that 56% of the respondents own 5-10 milking cows/buffaloes, 31% of the respondents have less than 5 milking cows/buffaloes, 9 % of respondents have 10-15 milking cows/buffaloes. Very few, i.e. only 4% of respondents, own more than 15 milking cows/buffaloes.

Table no. 4, Figure no. 4 : The number of milking Cows and buffaloes

No. of milking cows & buffaloes	F	%
Below 5	62	31.0
5-10	112	56.0
10-15	18	9.0
15 and above	8	4.0
Total	200	100.0



Source: primary data

Data representing the number of years dairy members are in dairy farming

Table no. 5, Figure no. 5 :The number of years members are in dairy farming

No. of years into dairy farming	F	%
Below 5	28	14.0
5-10	73	36.5
10-15	75	37.5
15 and above	24	12.0
Total	200	100.0



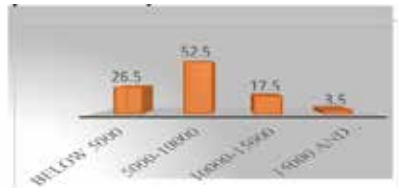
Source: Primary data

Table 5 shows the number of years dairy members in dairy farming. 37.5% of respondents have been in dairy farming for 10-15 years. 36.5% of respondents have been in dairy farming for 5-10 years, 14% have been in dairy farming for less than five years, and only 12% have been in dairy farming for more than 15 years.

Data representing monthly expenses of dairy members

Table no. 6, Figure no. 6 : The monthly expenses of Dairy

Monthly expenses	Frequency	%
Below 5000	53	26.5
5000-10000	105	52.5
10000-15000	35	17.5
15000 & above	7	3.5
Total	200	100.0



Source: -primary data

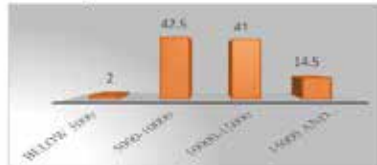
Table no.6 shows the monthly expenses of respondents. 52.5% of the respondents have expenditure between Rs. 5000-10000. 26.5% of the

respondents have their costs below Rs. 5000. 17.5% of the respondents have their monthly expenses between Rs. 10000-15000, whereas 3.5% of the respondents have more monthly payments more than Rs. 15000.

Data representing monthly income of dairy members

Table no.7, Figure no. 7 : Monthly income of dairy members

Monthly income	Frequency	%
Below 5000	4	2.0
5000-10000	85	42.5
10000-15000	82	41.0
15000 & above	29	14.5
Total	200	100.0



Source:- primary data

Table no. 7 shows the monthly income of respondents. It is found that most of the respondents, i.e. around 42.5% have their income between Rs.5000- 10000. 41% of the respondents have an income between Rs.10000-15000. 14.5% of the respondents have an income above Rs.15000. Whereas very few, i.e. 2% of the respondent, have their income less than Rs. 5000.

Data representing the number of times milk provided by dairy members in a dairy co-operative society

Table no. 8, Figure no. 8 : The number of times milk provided by dairy members in a dairy co-operative society

No. of times milk provided	F	%
Once a day	19	9.5
Twice a day	181	90.5
Total	200	100.0



Source: - primary data

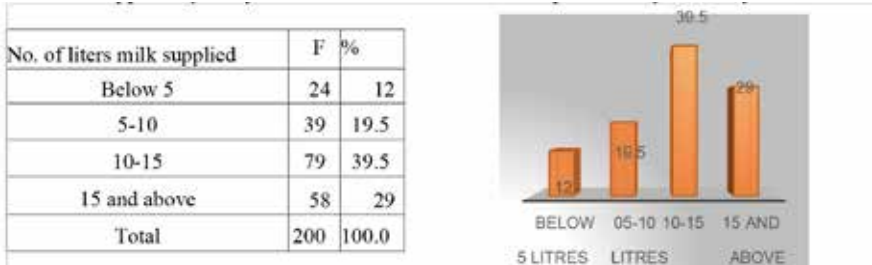
Table no. 8 shows the number of times milk provided by the dairy members. It is found out that most of the respondents, i.e., 90.5%, provides milk in dairy co-operatives twice a day and only 9.5% supply milk once a day.

Data representing the number of liters milk supply by dairy members in a dairy co-operative society

Table no. 9 shows the number of liters milk supply by the dairy members to

the dairy co-operative societies. It offers 39.5% of the respondents supply 10-15 liters of milk. 29% supply milk more than 15 liters, 19.5% supply 5-10 liters of milk whereas least, i.e. 12% supply less than 5 liters of milk.

Table no. 9, Figure no. 9 : The number of liters milk supply by dairy members in a dairy co-operative society



Source:- primary data

Data representing the percentage of fat contained in milk provided by dairy members in a dairy co-operative society

Table no. 10, Figure no. 10 :the percentage of fat contained in milk provided by dairy members in a dairy co-operative society



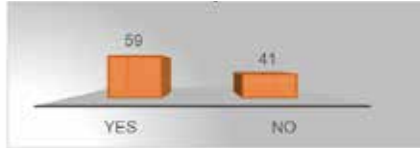
Source: –primary data

Table no. 10 shows the fat percentage of fat contained in the milk provided by the dairy members. 65.5% of respondents said that 6 - 9 % is the maximum fat percentage in the milk dairy members' supply. 32.5 % of respondents said that 3-6 % is the fat contained in the milk, and only 2% of the respondents said that fat contained in the milk is less than 3%.

Data representing a supply of entire milk to the dairy co-operative society by dairy member

Table no. 11, Figure no. 11 : A supply of entire milk to the dairy co-operative society by dairy member

Supply of entire	F	%
Yes	118	59.0
No	82	41.0
Total	200	100.0



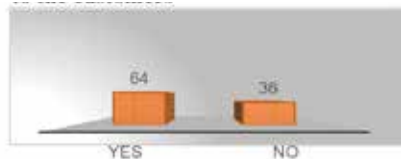
Source: - primary data

Table no. 11 shows the entire milk supply to the cooperative dairy societies. It is found that most of the respondents, i.e. 59%, supply milk directly to the dairy co-operative society and 41% of the respondents do not supply entire milk to dairy co-operatives.

Data representing respondents' reactions towards the selling of milk directly to the customer

Table no. 12, Figure no. 12 : Respondents' reactions towards the selling of milk directly to the customer

Sale of milk	F	%
Yes	128	64
No	72	36
Total	200	100.0



Source: Primary data

Table no.12 shows respondents' responses towards selling milk directly to customers. Here it is found that 64% of the respondents have tried milk of sale directly to customers, whereas only 36% of the respondents have not tried selling milk to customers.

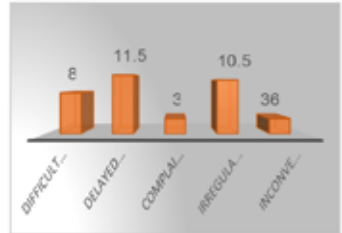
Data representing reasons why respondents have not tried selling milk directly to customers

Table 13 shows why the respondents have not tried selling milk directly to the customers. The majority of the respondents say that because of delays in payments, they have not tried selling milk directly to customers, followed by respondents who say that because of irregular demand for milk. Sixteen respondents say that they have not tried selling milk directly to customers

because of difficulties regarding milk delivery. Very few respondents, i.e. only 6, say they have not tried selling the milk directly to the customers because of complaints about quality and inconvenient timing of milk delivery.

Table no.13, Figure no. 13 : Reasons why respondents have not tried selling milk directly to customers

Reasons	F	%
Difficulties regarding delivery to the customer	16	8.0
Delayed in payments	23	11.5
Complaints about quality of milk from customer	6	3.0
Irregular demand for milk	21	10.5
Inconvenient timing of milk delivery	6	3.0
Total	72	36.0



Source: Primary data

Data representing respondents' responses towards workers employed at their farm

Table no.14, Figure no. 14 : Respondents' responses towards workers employed at their farm

Responses of workers employed in their farm	F	%
Yes	37	18.5
No	163	81.5
Total	200	100.0



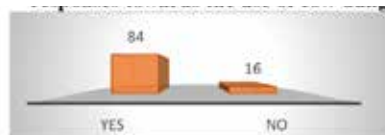
Source: Primary Data

Table no.14 shows respondents' responses towards workers employed on their farms. Out of 200 respondents, the majority, i.e. 81.5 %, have not used workers on their farm, whereas only 18.5% have employed workers on their farm.

Data representing respondents' responses towards usage of cow dung

Table no. 15, Figure no. 15 : Respondents' responses towards usage of cow dung

Usage of cow dung	F	%
Yes	168	84.0
No	32	16.0
Total	200	100.0



Source:- primary data

Table no. 15 shows respondents' responses towards the usage of cow dung. The majority, i.e. 84%, of the respondents use cow dung, whereas others do not use cow dung.

Data representing responses towards usage of cow dung by dairy members

Table no. 16, Figure no 16 : Usage of cow dung by dairy members

Usage of cow dung	F	%
In crop field	94	47.0
Biogas	10	5.0
Fuel	64	32.0



Source: Primary data

Table no.16 shows the reasons for which they use cow dung. Here, most respondents use cow dung as fertilisers for crops in the field. 64 respondents use cow dung as fuel, and very few use it for biogas.

Data representing responses towards the sale of cow dung by dairy members

Table no.17, Figure no. 17 :

Sale of cow dung	Frequency	Percent
Yes	36	18.0
No	164	82.0
Total	200	100.0



Source- primary data

Table no. 17 shows respondents' responses towards the sale of cow dung. It was found that only 18% of the respondents sell cow dung, whereas 82% do not sell cow dung.

The second objective of the study is to study the problems faced by members of the cooperative dairy society.

Descriptive statistics are used to analyse the problems faced by the milk dairy cooperative society.

Table no. 18 shows problems faced by members of milk dairy co-operative societies.

Variables	Mean	Std. Deviation
Non-availability of green fodder throughout the year	4.5050	.62605
Weather conditions	4.1700	.73744
Diseases due to an unhygienic environment	4.0100	.78931
Irregular supply of water	3.1650	.92849
Low capabilities of purchasing feed & fodder	3.9900	.74341
The price paid for milk by the dairy is low	3.9600	.83780
Difficulties in getting a loan from banks	4.0650	.73037
Delay in getting incentives from the government	4.0850	.70016
Non-availability of funds for repairs and maintenance	4.0850	.64798
Delay in payment by dairy cooperative	4.1500	.80044
High cost of milking equipment	4.2000	.71593
Lack of technical support	3.7350	.92142
Lack of training facility	3.6150	.97547
Lack of technical support in case of breakdown of equipment	4.0150	.85347
High cost of maintenance of equipment	4.0650	.75739
Poor knowledge about feeding and health care	3.9800	.72956
Infrequent visit of veterinary staff	3.8750	.76963
High cost of veterinary medicines	3.5900	.86930
High cost of meeting day to day expenses	3.5150	.76334
No proper shelter for cattle	2.7850	.98673
Source: - Primary data		

From table no.18, the highest mean value is 4.5050 for the variable non-availability of green fodder throughout the year, which says that this is a significant problem faced by a member of milk dairy cooperative societies non-availability green grass round the year. The lowest mean value revealed as

2.7850, for variable no proper shelter for cattle, which means that dairy members do not face any problems. Most members constructed shelters using shade cloth, corrugated iron, or timber. The dairy member's opinion about no proper shelter for cattle shows the highest deviation, i.e., 0.98673. On the other hand, the non-availability of green fodder throughout the year reveals the lowest deviation from the mean, i.e., 0.6260. The highest standard deviation is 0.98673 for variable no proper shelter for cattle, which means data is scattered over a larger area towards its mean. The lowest standard deviation is 0.62605 for variable non-availability of green fodder throughout the year, which explains that data is close to its mean value of 4.5050.

Findings :

Out of 200 respondents, it is found that a large number of respondents, i.e., 43.5% are in the age group of 35-45. Highest i.e., 44% respondents own 10-15 cow/buffalos and very few i.e., 6.5% respondents' own cows/buffalos less than 5. Out of 200 respondents, 105, i.e. 52%, have their expenditure between Rs. 5000-10000. Fifty-three respondents have their expenses below Rs. 5000 i.e., 26 %. Most of the respondents, i.e., 85 (42%), have an income between Rs.5000- 10000. Whereas very few, that is only 4 respondent says that their income is less than Rs. 5000.

It is found that the majority of respondents supply milk in a dairy co-operative society twice a day. The highest, i.e., 39.5 % of the respondents, supply milk more than 15 liters and least, i.e., 12 % of the respondents supply milk less than 5 liters a day. It is also found that the maximum per cent of fat contained in milk is between 6% to 9 %.

It is found that 59 % of respondents supply their entire milk production in a cooperative dairy society, whereas 41 % of respondents do not supply whole milk in a cooperative dairy society. It is also found that 64 % of the respondent has tried selling milk directly to customers, and at least, i.e. 36 % of respondents have not tried because of irregular demand for milk, delays in payments, and difficulties regarding the delivery of milk to customers.

Out of 200 respondents' majority, i.e., 81.5 % of them have not employed workers at their farm. Most respondents use cow dung in the crop field, biogas generation, or as a fuel. Whereas others do not make use of cow dung. 82 % of respondents sell cow dung, and least, i.e., 18 % of respondents do not sell cow dung. It is also found that the availability of green fodder throughout the year is the highest problem faced by the members of the cooperative dairy society.

Conclusion :

Dairy cooperatives are the backbone of the dairy industry. It is one of the essential sub-sectors of dairying agriculture. Out of the 200 respondents, a more significant number of males are in dairy farming than females. The highest number of respondents own more cows and buffaloes, and most of the respondents supply whole milk to the cooperative dairy society. Very few respondents do not sell their milk directly to the dairy co-operatives as they try selling their milk to the outside customers. Most of the respondents face problems in carrying out dairy farming. Most of the respondents earn income more than his expenditure which shows that they are gaining from dairy farming. Major problems the members face is the non-availability of fodder throughout the year, the high cost of milking equipment, weather conditions, and delays in payment by a co-operative society.

Suggestions :

The following are the suggestions based on the research carried out, and they are as follows.

- Fair milk prices should be provided to the dairy members on time as they are not getting reasonable prices for the milk supplied to the dairy societies.
- The primary dairy co-operative should provide transport facilities as they face difficulty supplying milk to the dairy cooperative society.
- The government should provide the milking equipment which is necessary for dairy farming.
- The Primary dairy cooperative society should make dairy members aware of the new schemes and subsidies introduced for cows/buffaloes.

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Cooperative Development through Young Farmers' Participation: A Study on Dairy Cooperative Societies in Puducherry

V. Dhanalakshmi,* Dr. C. Pitchai**

Abstract :

Cooperatives play an essential role in the lives of rural people and are the only sector that strengthens the activities of the agricultural population. Cooperatives are very close to the income and livelihood of rural people. Dairying is one of the most successful sectors ever started in cooperatives. Cooperatives are constantly developing their activities to take them to the next level. Nevertheless, the contribution of youth in cooperatives development, including dairy, is an essential asset. Young people do not have much awareness about cooperatives and their activities. That is the reason why young people do not get involved in cooperatives. The role of youth involvement in cooperatives is low, and overall in cooperatives, it leads the old conservative members. Cooperatives to take several initiatives have focused on youth employment in their field. Dairying could be the single most important source which can provide employment and economic growth to these youths. Further, youth by nature are more dynamic, sensitive, and receptive.

This study mainly focuses on cooperative development and young farmers' participation in dairy cooperatives in Puducherry and Cooperatives by offering them better economic efficiency and youth acceptance in dairy practices. The results of this study show that the involvement of young farmers in cooperative development is essential. It means creating employment opportunities for young people to enter dairy cooperatives, which will reduce unemployment in rural areas. Increase youth participation in cooperative dairy societies for higher productivity and economic efficiency.

Keywords:

Young farmers, Cooperative development, Dairy Cooperatives, livelihood, Pondicherry, and rural employment.

* Research Scholar, ** Professor, The Gandhigram Rural Institute Tamil Nadu

Introduction :

India has the largest youth population (15-24 years) is expected to reach 25.1 crores by 2021. Reports state that the attitude of the youth towards farming is primarily negative. Rural people are engaged mainly in informal agriculture in some way, people are not more aware as agriculture is a viable career. The biggest challenge of India in the coming years will be to retain youth in agriculture (Karthik D, 2021). The animal husbandry sector is the most essential and flourishing sector in India and it provides several opportunities to rural people. Most of the rural people engaged with livestock, and there is the primary income of the rural population. Therefore, the Growing human population, increasing urbanization, rising domestic income, and changing lifestyles have led to increasing demand for dairy products (Dyck, 2001).

Further, the dairy sector is the primary source of income for rural people, and it reduces unemployment complications in rural areas. Among these, 65 to 70 percent are small, marginal farmers and landless laborers (Satish Belhekar, 2016). The changing of the agriculture sector needs to involve youth participation youths' have an idea to initiate to develop dairy activities. On the other hand, youths are new technology-minded and innovative to improve milk quality, fulfill the market demand, and provoke high income for farmers.

This study mainly focuses on cooperative development and young farmers' participation in dairy cooperatives in Puducherry and Cooperatives by offering them better economic efficiency and youth acceptance in dairy practices. The results of this study show that the involvement of young farmers in cooperative development is very important. It has to create employment opportunities for young people to enter dairy cooperatives, which will reduce unemployment in rural areas. Increase youth participation in dairy cooperative societies for higher productivity and economic efficiency. India's youth population forwards the cooperatives to a profitable career.

Study Objectives :

1. To identify the number of members, and their age, education while addressing the basic skills for dairy farming.
2. To examine the level of acceptance of young farmers in dairy cooperatives in Puducherry societies and the contribution of youth to the development of cooperatives.
3. To study the development of young farmers within the cooperatives and the need to train them about dairy farming and cooperative management.

Methodology :

The present study aims to collect both primary and secondary data. Primary data was collected from the members and officials through a schedule and collected the secondary data from the records of annual reports of the respective cooperative institutions, journals, books, focused URLs, and all other related sources. Explored the related articles from various scientific databases like Google scholar, multiple journals, e.g., open-access journal, web of science and Scopus, etc., using title, abstract field, and keywords. From this study, five Primary Milk Producers' Cooperative Societies were identified and data were collected. Further, twenty members from each society were contacted to understand their involvement and expectation from the society.

Contribution of youth to the development of Cooperatives :

Cooperatives play an important role in the lives of rural people and are the only sector that strengthens the activities of the agricultural population. The prominent role of cooperatives is to connect with the income and livelihood of the rural people. They have a three tiered structure, i.e., Village level, District level, and finally, at the state level. The main objective of cooperatives is to serve the people on a non-profit basis and meet consumers' needs. Cooperatives are mainly concerned rural population, and it has to enrich the rural community.

There is 54.6 Percent of the workforce engaged with the agricultural and allied sector. The future of agriculture needs youth acceptance, and India is emerging as the future young nation globally. Nowadays cooperatives are an emerging sector in India as for the contribution of cooperatives to develop the rural community and sort out rural unemployment. The age group of member farmers in cooperatives is above 45 to 60 years old. They did not have much awareness about new technology and innovation because they felt the traditional method was easy to farm to compare with a new form. But, the new generation carries the development of cooperatives to inject their new ideas, use social media, adopt new technology for farming, and think innovatively to take the cooperatives to the global market.

Dairy Cooperatives in Pondicherry :

The Pondicherry Cooperative Milk Producers' Union Ltd., (PCMPU), under the brand name "Ponlait", was the first cooperative society to registered under the Pondicherry Cooperative Society Act 1972. Pondicherry

Cooperatives have the structure of two tiers: Primary Milk Producers Cooperative Society and second the Pondicherry Cooperative Milk Producers' Union. The functional activities are milk procurement, milk processing, and milk marketing. The Union has been carryout procuring quality milk from village dairy farmers since 1970. Ponlait aims to improve the rural community's financial status and social development and provide better quality milk to urban consumers. The only institute in Pondicherry contributes over Rs.1 crore every month to the rural economy in cash for the benefit of the farming community by way of milk purchase. At the village level, about 41,221 milk producers enrolled themselves as members. At present, 7,525 milk producers are in active participation. Average milk procurement from the Milk Producers' Cooperative Society is 65,000 liters every day and stored by Bulk Milk Cooler (BMC) to maintain the quality of collected milk. An additional 40,000 liters a day are pumped in from neighboring states to meet market demand. Ponlait to pay the amount as the quality basis of the milk supplied by them for FAT 4.2%, SNF 8.3% milk price per liter Rs.34/- (Ponlait). Ponlait availed the financial assistance from the Cooperative Development, Government of Puducherry for Dairy expansion activities, and 75% Cattle feed subsidy scheme to benefit the producers.

Acceptance Level of Young Farmers' Participation in Dairy Cooperatives : Agriculture offers the young generation a chance to involve farming activities and make a difference by growing enough food to feed the world. Those who become farmers now have the opportunity to be the generation that ends world hunger and alleviates malnutrition, as well as helping the sector adapt to climate change. (eFarms Blog, 2018)

Now, people are not without mobile phones because they have advanced knowledge and increasing use of mobile phones that can also help the young people convention of farm activities from the traditional method. It will help change the perceptions about agriculture, and it has to view them economically. Agriculture is a better one is an exciting and innovative industry. There are minimum levels of youth accepting in dairy cooperatives. Most of the young farmers are selling milk his own way, because cooperatives collect milk from farmers for Rs.30 to 34/- per liter, owning selling is high compared to cooperative society price.

Level of Young Farmers' Participation of the Dairy Cooperative Society in Puducherry

The role of youth involvement in Dairy Cooperative Society in Puducherry is low, and overall in cooperatives, it leads the old conservative members.

Cooperatives to take several initiatives have focused on youth employment in their field. Dairy cooperative societies should plan to attract the participation of young farmers and cooperative members in this field through conducting the awareness and dairy programs. Dairying could be the single most important source which can provide employment and economic growth to these youths. Further, youth by nature are more dynamic, sensitive, and receptive; hence they can be better utilized in the rapid dissemination of innovations in dairying and animal husbandry to their communities.

This study data were collected from 5 Primary Milk Producers' Cooperative Society in the Puducherry region. In total, 100 respondents were selected randomly from 5 PMPCS. The selected respondent must be a member of the selected society.

In recent years Ponlait meets out the shortage of milk procurement as the reason behind decreasing members' participation in dairying. Existing farmers are to follow the traditional method of maintaining livestock. Following table 1 and 2 represent the members' participation in Puducherry Dairy Cooperatives and age group.

Table 1: Members Participation in Selected Society in Puducherry

Name of the Society	Members Participation				
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Poriyour Women Cooperative Milk Producers Society Ltd., No.P.685	200	211	211	211	211
Kanagachettikulam Women Cooperative Milk Producers Society Ltd., No.P.678	69	85	89	89	89
Kanuvapet Cooperative Milk Producers' Society Ltd., No.P.501	421	465	465	465	467
Koodapakkam Cooperative Milk Producers' Society Ltd., No.P.289	525	628	690	755	947
Pooranakuppam Cooperative Milk Producers' Society Ltd., No.P.416	715	715	720	730	750

Source: Primary Data

Table 2: Members Participation in the age group of (40 to 80 years) and (18 to 30 years)

Sl.No.	Name of the Society	Members (40 to 80 years) in %	Members (18 to 30 years) in %
1	Poriyour Women Cooperative Milk Producers Society Ltd., No.P.685	80%	20%
2	Kanagachettikulam Women Cooperative Milk Producers Society Ltd., No.P.678	90%	10%
3	Kanuvapet Cooperative Milk Producers' Society Ltd., No.P.501	95%	5%
4	Koodapakkam Cooperative Milk Producers' Society Ltd., No.P.289	80%	20%
5	Poorananakuppam Cooperative Milk Producers' Society Ltd., No.P.416	70%	30%

Source: Primary Data

Collected data were examined there are 90% of the rural farmers are age-old people (40 to 80) years and 10% only young farmers' to register as the member in CMPS Puducherry and pour milk in that registered society. This study found that most of the dairy farmers have finished their schooling few farmers only completed Bachelor's Degree and others.

Age :

The minimum age of the member to enter a cooperative is 18 years that applicable for the cooperative member. In Puducherry, most dairy farmers are age-old people who have enrolled as a member for above 50 years. Moreover, they are not much aware of using of new technologies till now they have followed traditional method. But, the young farmers have a new idea for dairy farming it will help the dairy cooperative sustain their activities more powerful. Increasing the level of youth participation in dairy cooperatives at the same time increasing the level of milk procurement that would reduce the shortage of milk in "Ponlait"

Education :

The education level is an essential factor in understanding the characteristics of youth in the agricultural sector or even in dairy cooperatives. Nowadays, rural people also have a better education; at least they finished formal education like Higher Secondary or Professional Degree. Educated young farmers easy to understand the policy and cooperative management further,

more-educated farmers young farmers become to take dairy farm effectively than less-educated. (Andhani, 2017).

Involvement of young farmers in improving dairy cooperatives and sustaining their activities :

"Cooperatives are principle-based enterprises that put people rather than the pursuit of profit at the center of their business. They follow a broader set of values by making a profit, namely self-help, self-responsibility, democracy, equality, equity and solidarity" (Andhani, 2017). The old nature of cooperatives has been associated with members' participation; therefore, members are an asset for the cooperatives.

Dairying is one of the most successful sectors ever started in cooperative societies in cooperatives. Cooperatives are constantly developing their activities to take them to the next level. Nevertheless, the contribution of youth to cooperative development, including dairy, is an important asset (Dr.C.Pitchai, 1991). The unemployment rate in India reached 7.2 percent, and youth unemployment in India 6.6 percent on 4th December 2021. Lack of jobs in urban areas would return the young farmers in the dairy sector. Meanwhile, actual dairy farmers are age issues, lack of basic knowledge, and a lower level of education. Cooperative society involves increasing young farmers and providing training and workshops on dairy farming and cooperative management. (Andhani, 2017).

Awareness about Dairy Cooperatives :

Youths are not much aware of dairy cooperatives and the functional activities they have carried out. Village dairy cooperatives to conduct awareness program for young farmers and those who are interested in dairy farming they would train them.

Training :

Young farmers' thoughts are very different compared with aged farmers. They also stated to be the key to innovation, energy, and creativity in developing new market strategies and highly productive farming practices. Cooperatives are to give proper training for young farmers interested in participating in agriculture and dairy farming.

Major Findings :

In India, two third of the population depend upon agriculture, so we need

more production, but what actually happened is that the majority of the young generation do not want to involve agriculture (Mr.Mohit Kumar, 2019) because the parents' mind is agriculture is not profit one. But we need to change youths minds to potentiality use this resource. The following study findings are

- Old-age farmers due to lack education and awareness about usage of new practice/techniques and social media
- Lack of awareness about dairy farming and cooperative functioning
- Education will migrate the youth population to select urban job
- Their knowledge about agriculture is very low
- Lack of knowledge about green jobs
- Low level of Procurement in Ponlait
- Increase in milk demand

This study addresses the above findings and identifies the gap between dairy cooperatives and young farmers' participation.

Suggestions :

- The Government to make policy or program to train the youths, it will be really helpful for the younger generation.
- Increased participation of youths in agriculture activities and that will reduce the participation of the old-aged farm population besides minimizing the problems and increasing youth employment in India.
- Cooperative to give proper training for youth in dairying like usage of latest technology and practices.
- Increasing agricultural and cooperative content in education and that will help the youth to understand early about agriculture and cooperatives.
- Youths can use the new techniques, practice, and use social media easily but need to train.
- The above suggestions will help to make the dairy cooperatives succeed under the competitive environment and gap to identify to fulfill the future researcher.

Conclusion :

The study concludes that increasing youth unemployment in rural areas can be further associated with a high level of poverty. However, cooperatives promote several job opportunities for rural people and reduce poverty in rural areas. Dairy Cooperative in Pondicherry needs to involve young

farmers in this field. Young farmers usually follow a new way of farming, a creative way of production, and redirect the market for global selling.

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Analysis of factors influencing effectiveness of Dairy cooperatives (A study of farmers in Ponda Taluka, Goa)

Naik Vidisha V. *, Naik Diksha D.Ghadi Pratiksha P.*****

Abstract:

J.P. Warbasse defines co-operation as a "way of life whereby people unite democratically, in the spirit of mutual aid, to get the largest possible access to the things and services they need". Co-operation is a medium through which isolated and powerless people can join for joint trading. Co-operative societies are independent organisations initiated to provide service to their members. The Primary Dairy Cooperative Society (PDCS) is an autonomous association of dairy farmers united voluntarily to meet their everyday economic needs. This research aims to study the problems faced by the dairy farmers of Ponda taluka, Goa. The study is based on primary data collected from 156 randomly selected respondents from 27 primary dairy cooperative societies of Ponda taluka, Goa. The primary data was collected through a personal interview using a structured questionnaire. The data were analysed using descriptive statistics, correlation, and regression analysis. The study revealed that the variables such as weather problems, non-availability of resources and farming equipment, and lack of education and training do not significantly impact the overall problem faced by dairy farmers.

Keywords:

Cooperatives, Dairy Farmer, Primary Dairy Cooperative Society, Overall satisfaction.

1. Introduction :

As said by Henry Ford, "Coming together is a beginning, Keeping together is a progress & working together is a success". Man cannot live in isolation. To live a happy and successful life, he requires the company and support

* Assistant Professor in Commerce ** M.Com II, Student *** Assistant Professor in Commerce, Government College of Arts, Science & Commerce Khandola Marcela – Goa

of other members of society. In other words, he requires co-operation. The primitive concept of co-operation assumed that cooperation is a way of living a better life. However, the modern concept denotes co-operation as a unique business method (V. Sharada 2012). Co-operatives can be defined as autonomous associations of persons united voluntarily to meet their economic, social, and cultural needs and aspirations through jointly owned and democratically controlled enterprises (Derso Beyene 2016). It is a form of collective action wherein individuals work together to ameliorate their limitations in the market (Claudia 1990). Co-operative societies can be classified into three different sectors. Namely, primary, secondary, and tertiary. Co-operatives for farming, marketing processing, fishing, dairying, etc., form part of the primary sector; the secondary sector includes industrial co-operatives & co-operative banking come under the tertiary sector.

1.1 Dairy Co-operatives Scenario in Goa :

The tourism industry enormously influences goa's economy; however, the significance and contribution of animal husbandry and agriculture cannot be denied. Goa is also known as 'Gomanchal' – the name itself suggests it's a land of cows (Mitragotri 1992). Cow rearing and agriculture was the predominant profession in Goa. However, till the liberation of Goa in 1961, there were no efforts made to any form of systematic development of animal husbandry or dairy industry. Post liberation, an independent directorate was established to look after animal husbandry and veterinary services, thus heralding the progressive outlook in the field. To meet the local demand for good quality milk, the government started a dairy unit in 1967procured about 1000 LPD. A milk pasteurisation plant was established at Panjim. The visionary leader and the first Chief Minister of Goa, Late Dayanand Bandodkar, requested Dr Kurien (the father of Operation Flood) to set up a Dairy Plant in Goa. Dr. Kurien gave Goa 1000 LPD plant. Later, when the milk production increased, the government, with the help of NDDB, established a Dairy Plant at Curti Ponda Goa in 1971. The capacity of the plant was 10,000 LPD. The government collected milk from the Societies and individuals, which fell short of the demand. Hence, milk had to be procured from the neighbouring States – The government procured and processed about 6,000 to 8,000 LPD milk at the Ponda plant.

In recent years, the dairy business and dairy co-operatives are in maximum number in the state, showing a positive trend, although currently in Goa 58% of milk requirement being purchased from neighbouring states. Many PDCS are small in share capital, milk procurement, and membership in

Goa. Further, it is experienced that just 15 to 20 % of dairy farmers are operating members. The economic standard of dairy members is influenced by expected expansion, financial standing, and the capability of the dairy societies.

In the state of Goa, there are almost 2,244 co-operative societies up to the membership of 8 11,495, out of which 176 are dairy societies with 19,895. This scenario mainly focuses on only 7.84% of dairy societies, total co-operatives with 2.08% membership out of its total membership. This percentage shows that the people of Goa have ignored the dairy sector as an economic activity. As per the practical scenario of other states like Gujarat, the dairy sector can influence the socio-economic class of members. At present, Goa needs at least a minimum of 3.5 Lakh liters of milk per day, and Goa Milk Union Ltd. can supply on average only 80,000 liters of milk per day (Popkar 2016).

1.2 Role of Primary Dairy Co-operative Societies :

Smallholder farmers are considered the backbone of agriculture-based economies (Sidawi Rami). Though milk is produced in almost all countries (Lalhumliana, 2021), India is the largest producer of milk, with an annual production of 198.4 million MT (2019-20) (CII). In India, milk is mainly produced by small-scale farmers in rural areas (Gamit 2021); thus, Dairying has been an integral part of Indian farming systems. Dairy, an essential sub-sector of Indian agriculture, accounts for approximately 17% of the output from agriculture and allied activities (Seilan 2020). It helps them earn their daily income and be self-sufficient. Most dairy farmers reside in rural areas; however, the product milk has more demand in urban markets. Co-operatives play an important role here by setting up a mechanism of connecting rural dairy farmers with urban markets. It develops a link between the producers of milk and the consumers of milk (Gamit 2021). Membership with the primary dairy co-operative society provides enormous benefits to dairy farmers. A significant advantage is it helps in improving productivity-enhancing markets. Dairy co-operatives possess a governance structure to help their members achieve sustainable development goals.

2. Literature Review :

Dairying activity is thus one of the key contributors to socio-economic development. The following literature review was conducted to understand the previous research work done in primary dairy cooperatives.

Sidawi Rai (2021) researched problems smallholder farmers face in the Kvemo Kartli region. The study is based on primary data. As per this research, the fundamental issues faced by these farmers are lack of fodder, low-quality fodder, and water scarcity.

Padhi Prabina Kumar (2019), in this study the author examined the growth and development of the dairy industry with particular reference to Odisha State Cooperative Milk Producers Federation Ltd. (OMFED). A significant study found that the number of dairy cooperative societies in Odisha grew along with farmers' membership. The study concluded that Odisha offers an immense opportunity to increase employment, income, and livelihood in rural areas.

Derso Beyene et al. (2018) attempted to identify the factors affecting member participation in primary co-operatives of the north Gondar zone, Amhara region, in Ethiopia. The primary data is collected from the 121 members of dairy cooperatives. According to the research, technical factors such as transparency, extension service, and promoters' support have a significant influence on members' participation & economic factors, such as raw milk price, the number of milking cows, credit access, and patronage dividend has a significant influence on members' participation.

Bayan Baban (2018), the study analyses the impact of membership of dairy cooperative societies on the performance of smallholder dairy production systems using matching techniques. The primary data was collected from 202 dairy farmers and was analysed using descriptive statistics and probit regression. The findings show that membership of a cooperative dairy society contributes to improved yields of farm income, dairy animals, employment, and household milk consumption; it does not significantly impact the technology adopted. The research concluded that the milk prices provided by dairy cooperatives are much lesser than the prices in the wet market.

Kumar Anjani et al. (2018), the paper studies the impact of the member of the dairy cooperative on-farm performance in Bihar. The study is based on data collected from randomly selected 148 milk producers in 2007 and 2015. The data is analysed using net return, milk yield, and Food Safety Measures (FSM) adaption through Endogenous Switching Regression Model. The study found that Dairy Cooperative membership positively and statistically significantly impacted net return, milk yield, and compliance with food safety measures. The study indicates that marginal farmers are likely to gain extra from dairy cooperatives.

Shweta & Singh Ashok K. (2018) paper focuses on Socio-Economic Upliftment of Women through Dairy Enterprise. The primary data was collected from 210 women Dairy Cooperative society's members, and the data was analysed using Linear Regression Model. The study's findings show that Farm Women have played a vital role; however, they often neglect equal chances due to socially embedded gender inequalities. Thus the study concludes that women are dedicated to dairy products; their involvement in the dairy business is considered an essential tool for eliminating poverty and enhancing the nature of the life of the rural community.

Machogu Clifford and Yegon Reuben (2017), the paper examined the effects of Economic determinants on the performance of cooperative dairy societies in Kericho County. The study is based on primary as well as secondary data. The study applied a descriptive research design, using a census of the whole population of 51 respondents. The data were analysed using descriptive statistics. The findings indicate that the performance of the Dairy Cooperative Society was on the decline. The study concludes that the determinants such as capital formation, entrepreneurship, capacity utilisation, adoption of technology, and competition affect the performance of cooperative dairy societies to a great extent.

M. C. Sati and Panwar Preety (2017) measured the growth of Dairy Cooperatives in terms of procurement and sale of milk and membership of dairy societies in Uttarakhand. The study is based on data collected from the Uttarakhand Dairy Cooperative Federation of all districts of Uttarakhand for 15 years. The data was analysed by using Trend Analysis. The study's primary finding was that the variables evaluated had depicted a positive growth trend with slight fluctuations during the study. The study concludes that the membership, procurement, and sale of milk increase in rural areas of Uttarakhand state.

Sankar Jayendra (2016) analysed the problems, difficulties, and constraints milk producers and milk co-operatives face Nadu, Vellore district. According to this study, low procurement prices and non-availability of loan facilities are the significant problems milk producers face; in contrast, lack of sufficient cold storage is the main problem of milk cooperatives.

In their research, **Choudhary H. et al. (2004)** studied constraints faced by milk producer members of cooperative dairy societies. The study was

based on primary data collected from 240 milk producers of the Jaipur and Dausa districts of Rajasthan. Data were analysed using mean per cent score & rank-order correlation. Their study revealed that irregular and inadequate supply of cattle feed, poor conception rate in buffalo, periodic meetings of the society, delay in payments of milk & discrepant and discrete testing of fat were the significant constraints perceived by male members whereas 'time doesn't suit for milking in the winter season, poor conception rate in buffalo was the significant constraints perceived by the female members.

3. Research Gap :

To have a fair idea of the area of study, a review of the literature was carried out, which revealed that there are several studies available in the area of primary dairy cooperative society, such as – Sidavi Rami (2021) Sankar Jayendra (2016), Choudhary H. et al. (2004), studied the problems and challenges faced by dairy farmers in Kvemo Kartli region, Tamilnadu and Rajasthan respectively. Machogu Clifford and Yegon Reuben (2017), M. C. Sati and Panwar Preety (2017) measured the growth of Dairy Cooperatives in terms of procurement and sale of milk and membership of Dairy Societies in the state of Uttarakhand. Shweta & Singh Ashok K. (2018) has researched Socio-Economic Upliftment of Women through Dairy Enterprise. Derso Beyene et al. (2018) identified the factors affecting member participation in primary co-operatives of Euthopia; Kumar Anjani et al. (2018) studied the impact of members of dairy cooperatives' on-farm performance in Bihar. Padhi Prabina Kumar (2019) author examined the growth and development of the dairy industry with particular reference to Odisha State Cooperative Milk Producers Federation Ltd. (OMFED). However, no research seems to be conducted on problems faced by dairy farmers of Ponda taluka in the state of Goa.

There are 178 Dairy Cooperative Societies in Goa, and it is divided into all the Talukas of Goa. Presently there are 27 Dairy Cooperative Societies in Ponda Taluka. All the PDCS are registered under the Cooperative Society Act. The primary purpose of the cooperative dairy society is to connect dairy farmers to the broad markets. Thus, to achieve this purpose, a PDCS collects the milk daily from the member dairy farmers, makes the payment for the milk supply, dispatches the remaining milk to the milk union, and performs several more functions for the benefit of the member dairy farmers. On the other side, dairy farmers play a vital role in supplying milk to primary dairy cooperative societies to run cooperative societies. They are also members of these primary dairy cooperative societies. However, it was

observed that member dairy farmers are facing some problems from the end of primary dairy cooperative societies. Therefore, the researchers selected "problems of dairy farmers" as the subject of the study.

4. Research Question :

- What are the problems faced by dairy farmers of Ponda taluka, Goa?

5. Objective :

- To analyse the problems faced by dairy farmers of Ponda taluka.

6. Research Methodology :

6.1 Type of Data:

The present study is based on primary data collected from farmers who are milk suppliers of Primary Dairy Cooperative Societies in Ponda Taluka.

6.2 Area of Study:

The research is conducted in the Ponda taluka. Ponda is a city and a municipal council in the South Goa district of Goa. Located in the central area of Goa, Ponda lies 28 km (17 miles) southeast of Panjim, the capital of Goa, and 17 km (10.6 miles) northeast of Margao, the district capital.

The reason to select Ponda taluka to conduct this research work is the maximum number of primary dairy cooperative societies is located in Ponda Taluka.

6.3 Sample Size:

One hundred fifty-six dairy farmers were randomly selected from 27 PDCS of Ponda Taluka. The required primary data has been collected by personally visiting the dairy farmers.

6.4 Data Collection:

- Structured Personal Interview

The primary data from all respondents (Dairy Farmers) was collected through a personal interview using a structured questionnaire containing questions helpful to achieve objectives.

- Unstructured Personal Interview

The required information about the history and current scenario of PDCS was collected by interviewing the employees of the Primary Dairy Cooperative Society of Ponda Taluka.

6.5 Period of the Study :

The period of the study is from October 2019 to December 2019.

6.7 Tools & Techniques Used :

The data is analysed using SPSS (Statistical package for social science). From dairy farmers' point of view, to know the impact of the dependent variable, i.e. widespread problem on independent variables like a cost-related problem, weather problem, transport-related problem, fodder and grass problem, inadequate health and issues of livestock, the higher maintenance cost of the hybrid animal, insufficient water supply, non-availability of resources and farming equipment, lack of awareness about Govt. schemes and subsidies, lack of education and training and Govt. control in prices of milk and to analyse these variables Regression Analysis is used.

7. Demographic Profile :

The profile of the farmers is based on their Age, Gender, and Education Qualification.

Table No. 1: Profile of the Respondents

Variables		Frequency	Per cent
Age	20-30	16	10.3
	30-40	19	12.2
	40-50	62	39.7
	50 and above	59	37.8
Gender	Male	138	88.5
	Female	18	11.5
Education Qualification	Primary	82	52.6
	SSC	68	43.6
	Higher Secondary	6	3.8

Source: Compiled from primary data

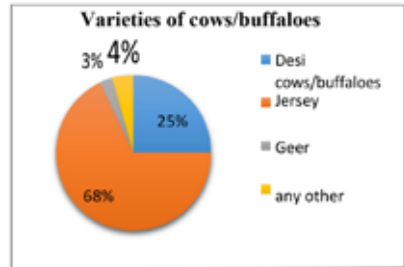
From the above Table no. 1, we can state that out of 156 respondents, 62 respondents belong to the age group of 40-50, which comprises of majority of the sample, and 10.3 % belong to 20-30 years.

In the case of Gender, 88.5% belong to males, and 11.5% are female. Educational qualification shows that 82 respondents have done Primary, consisting of 52.6 %, and six respondents have done Higher Secondary education constitutes 3.8%.

• **Varieties of Cows And Buffaloes :**

Table No.2, Graph No.1: Showing Varieties of Cows And Buffaloes Maintained

Varieties	Frequency	Percent
Desi cows/buffaloes	39	25.0
Jersey	106	67.9
Geer	4	2.6
any other	7	4.5
Total	156	100.0



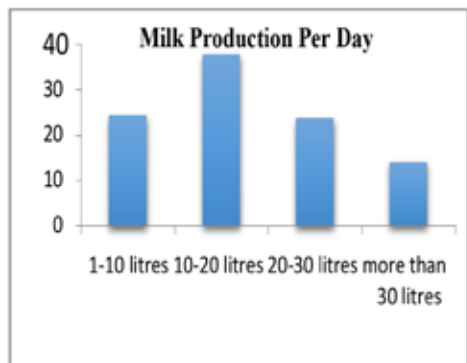
Source: Compiled From Primary Data

From table no. 2, it is observed that the majority of respondents, i.e. 106, have Jersey cows, that are 67.9%, and very few respondents have Geer, which is 2.6%.

Per Day Average Milk Production

Table No.3, Graph No.2 : Per Day Average Milk Production Milk

Production per day (in liters)	Frequency	Per cent
1-10 litres	38	24.4
10-20 litres	59	37.8
20-30 litres	37	23.7
more than 30 Litres	22	14.1
Total	156	100.0



Source: Compiled From Primary Data

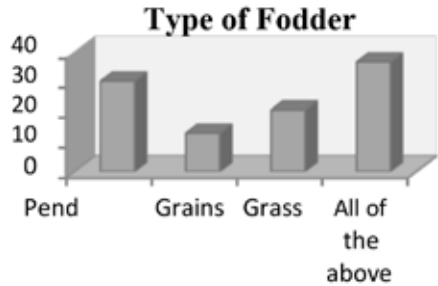
In table no.3, we can observe that most respondents, that is, 59 respondents,

are getting 10-20 liters of milk per day, whereas very few samples that are 22 respondents are getting more than 30 liters of milk per day.

• **Fodder Provided To Cows/Bufaloes :**

Table No.4, Graph No.3 Type of fodder provided to cows/bufaloes

Type of fodder	Frequency	Per cent
Pend	47	30.1
Grains	20	12.8
Grass	32	20.5
All of the Above	57	36.5
Total	156	100.0



Source: Compiled From Primary Data

From table no.4, it can be stated that 36.5%, that is, 57 respondents, are providing all the above, that is, pend, grains, and grass, to the cows and buffaloes that the respondents maintain.

• **Method of testing used to collect milk by Primary Dairy Cooperative Societies**

Table No.5, Graph No.4: Testing methods used to collect milk

Method of Testing milk	Frequency	Per cent
taking smell of Milk	6	3.8
by testing milk	41	26.3
by testing fat	107	68.6
without any Checking	2	1.3
Total	156	100.0



Source: Compiled From Primary Data

This table shows that the majority that is 68.6%, of respondents that supply milk to dairy cooperative societies, is tested by checking the fat of milk.

8. Data Analysis :

To analyse the problems faced by dairy farmers in Ponda Taluka, the following technique have been used:

Regression Analysis: Regression is a set of statistical techniques used to estimate the relationship between a dependent variable and one or more independent variables. It can be adopted to assess the strength of the relationship between variables and for developing the future relationship between them.

In the case of the present study, the researcher used the regression analysis technique to know the impact of independent variables like cost issues, weather, transport, fodder and grass, inadequate health and issues of livestock, the higher maintenance cost of the hybrid animal, insufficient water supply, non-availability of resources and farming equipment, lack of awareness about Govt. schemes and subsidies, lack of education and training and Govt. control in prices of milk on the dependent variable, i.e. widespread problem.

Table No.6: Model Summary of Regression Analysis for problems faced by Dairy Farmers:

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.871 ^a	.758	.740	.36927
<i>Source: Compiled from primary data</i>				
R² =0.758 Adjusted R Square=0.740				

The above Table No.6 states that the independent variable explains 74 % of the variation in the dependant variable, and the remaining 26 % are an unexplained factor. The hypothesis for the testing is as follows:

H₀: There exists no significant impact of the cost-related problem, weather problem, transport-related problems, fodder and grass problem, inadequate health and issues of livestock, Higher maintenance cost of the hybrid animal, inadequate water supply and non-availability of resources and farming equipment, lack of awareness about Govt. schemes

and subsidies, lack of education and training, and Govt. control in milk prices on the overall problem.

Table No.7: Showing Coefficients of Regression analysis for problems faced by Dairy Farmers :

Particulars	Coefficient of Beta	Sig.
(Constant)		.001
cost-related problem	-.342	.000
weather problem	.073	.216
transport-related problem	-.115	.057
fodder and grass problem	.628	.000
inadequate health and issues to livestock	.103	.038
higher maintenance cost of crossbred animals	.542	.000
inadequate water supply	.196	.007
Nonavailability of resources and farming equipment	.063	.293
lack of awareness about government schemes and subsidies	.465	.000
lack of education and training	.036	.512
government control on prices of milk	-.138	.036

The subdivided hypotheses are tested as follows:

H₀: There exists no significant impact of the cost-related problem on the overall situation.

The significance value for the variable cost-related problem is 0.000, lower than 0.05 at a 5% significance level. Hence, we reject the null hypothesis, which highlights the impact of this variable on the overall problem. The coefficient value is -0.342, which negatively impacts the general situation.

H₀: There exists no significant impact of weather problems on the overall situation.

The significance value for the independent variable, i.e. weather problem, is 0.216, which is more than 0.05 at a 5% level of significance; hence we failed to reject the null hypothesis and conclude that this variable has no significant impact on the overall problem.

H₀: There exists no significant impact of the transport-related problem on the overall situation.

The significance value for the variable transport-related problem is 0.057, which is more than 0.05 at a 5% significance level. Hence, we fail to reject the null hypothesis, which indicates that this variable has no impact on the overall problem. The coefficient value for this variable is -0.115, which is harmful, showing a negative effect on the general situation.

H₀: There Is No Significant Impact of Fodder And Grass on the Overall Problem.

The variable fodder and grass problem has significance as 0.000, which is lesser than 0.05 at a 5% significance level. Hence, we reject the null hypothesis and conclude that this variable impacts the overall problem. The coefficient value for this variable is 0.628, which shows a positive effect on the general situation. This states that if there is a rise in the fodder and grass problem, there will be a rise in the overall problems faced by dairy farmers.

H₀: There exists no significant impact of inadequate health and issues to livestock on the overall problem.

Since the significance value for the variable inadequate health and issues to livestock is 0.038, which is less than 0.05 at a 5% level of significance, hence, we reject the null hypothesis, which ultimately shows that this variable's impact on the overall problem and the coefficient value for this variable is 0.103, which indicates a positive effect on the general situation. As the problem of inadequate health and issues to livestock increases, the problems known faced will also show an increase.

H₀: There exists no significant impact of the higher maintenance cost of crossbred animals on the overall problem.

The variable higher maintenance cost of crossbred animals gives a significance value of 0.000, less than 0.05 at a 5% significance level. Hence, we reject the null hypothesis, which highlights the impact of this variable on the overall problem. Here the coefficient value is 0.542, which is positive hence it shows a positive effect on the general situation. Increasing the higher maintenance cost of crossbred animals will significantly increase the overall problem faced.

H₀: There exists no significant impact of inadequate water supply on the overall problem.

The p-value for the variable inadequate water supply is 0.007, less than 0.05 at a 5% significance level. Hence, we reject the null hypothesis, which states that this variable impacts the overall problem. The coefficient value for this variable is 0.196, which positively impacts the general situation. This indicates that a decrease in the problem of inadequate water supply will show a reduction in overall issues faced.

H₀: There exists no significant impact of the nonavailability of resources and farming equipment on the overall problem.

The significance value for the independent variable, i.e. non-availability of resources and farming equipment, is 0.293, which is more than 0.05 at a 5% level of significance; the researcher fails to reject the null hypothesis, which indicates that there is no significant impact of this variable on the overall problem.

H₀: There exists no significant impact of lack of awareness about government schemes and subsidies on the overall problem.

The variable lack of awareness about government schemes and subsidies shows a significant value of 0.000, less than 0.05 at a 5% significance level. Hence, we reject the null hypothesis, which highlights the impact of this variable on the overall problem. The coefficient value is shown as 0.465, which is positive, which means this variable positively affects the general situation. This states that increasing the lack of awareness about Govt. schemes and subsidies will increase the overall problem.

H₀: There exists no significant impact of lack of education and training on the overall problem.

The significance value for the variable lack of education and training is 0.512, more than 0.05 at a 5% significance level. Therefore, the researcher fails to reject the null hypothesis, which indicates no significant impact of this variable on the overall problem.

H₀: There is no significant impact of government control on milk prices on the overall problem.

The p-value for the variable government control on milk prices is 0.036, which is less than 0.05 at a 5% significance level. Hence, we reject the null

hypothesis and conclude that this variable impacts the overall problem; the coefficient value is -0.138, negatively affecting the overall problem.

9. Findings :

The findings of the current Study based on the data analysis, are as follows:

- The study shows that most respondents are in the age group of 30-40 and most of them are males involved in the business of dairy farming. It is also observed that many dairy farmers are getting 10-20 liters of milk per day from the farming business. While collecting milk from dairy farmers, most of the primary dairy cooperative societies check the milk's fat, and very few primary cooperative societies collect milk without checking.
- The study analysed that the variables such as fodder and grass problem, inadequate health and issues to livestock, the higher maintenance cost of hybrid animals, insufficient water supply, lack of awareness about government schemes and subsidies, and government control on prices of milk has a significant impact of these variables on the overall problem and the coefficient value for these variables are positive which indicate that there is the positive impact of these variables on the general problem.
- The variables such as cost-related problems and the transport-related problem show a significant impact on the overall situation, and the coefficient value for this variable is negative, which states that there is a negative impact of this variable on the general problem. The variables such as weather problems, non-availability of resources and farming equipment, and lack of education and training state that there is no significant impact of these variables on the overall situation.

10. Conclusion :

It can be concluded that the problem of cost, transport, fodder and grass, inadequate health and issues to livestock, the higher maintenance cost of hybrid animals, and inadequate water supply are the major problems faced by the farmers while carrying out their dairy farming business.

11. Suggestions :

The following are the suggestions based on the research carried out:

- The primary dairy cooperative societies should provide transport

facilities to dairy farmers as they face difficulty supplying milk to the dairy cooperative society.

- The proper rate for milk should be given to the dairy farmers as they are not getting the appropriate rate for the milk they are supplying to dairy societies.
- The primary dairy cooperative society should make dairy farmers aware about the new schemes and subsidies introduced for cows/buffaloes.
- The dairy farmers should be provided with medical facilities as and when required for the Cows/buffaloes, by cooperative dairy societies.

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An Empirical Study on Members of Primary Dairy Cooperatives

Afsana begam Badshah Mokashi *
Mr. Amey Uday Savoikar**

Abstract :

The word cooperation comes from the word cooperative. Cooperation in short means coming together or helping each other who have common goals. When individual resources of a single person are not enough to do a business, a group of people voluntarily come together and combine their resources which provides them a weightage thus forms a society.

Dairy cooperative societies play a vital role in a farmer's life to improve his livelihood. Most of the people living in rural areas are depended upon farming and the most common one is dairy farming. Indian dairy sector has made a huge progress over the years. The cooperative movement especially the 'operation flood' has played one of the most important roles in facilitating the participation of farmers in this expanding sector. Members involved in the dairy cooperatives get monthly payments. They also get education about how to provide medical treatment to the animals, milk treatment facilities, etc. The cooperative societies provide secure market to its members. The members of dairy cooperatives are free from doing marketing activities as it is done by the dairy cooperatives. Directly or indirectly the dairy cooperatives help in improving the standard of living of farmers by providing them financial aids through various activities.

This paper closely inspects the factors influencing membership of farmers in primary dairy cooperatives in Goa and tries to examine the farmers' satisfaction with the services provided by

the primary dairy cooperatives. The study also examines the level of awareness of members about cooperative milk society's policies and procedures. Some members of the society are not aware about the different policies or procedures framed in the cooperatives, it may be due to lack of

* & **Student, M.Com part I, PG Department of Commerce,
Government college of Arts, Science and Commerce, Khandola- Marcela, Goa

education and no proper information. The members are asked questions about the awareness based on aspects such as cooperative dairy schemes, basis of price fixing, animal health care policy, power of voters etc., and the information is collected through primary sources with the help of a structured questionnaire. The relation between factors related to members participation and their satisfaction is found using the data collected from the members involved in dairy cooperatives. The satisfaction level of the farmers is assessed on the basis of variables milk pricing, cooperative services, cooperative operation, cooperative governance and many more. The study will throw light upon the efficiency of primary dairy cooperatives in terms of fulfilling the objectives for which they were formed.

Keywords:

Dairy cooperatives, Factors influencing, Members awareness, Members satisfaction.

1. Introduction :

Introduction to Cooperatives :

Cooperation in short means coming together or helping each other who have common goals. There are many peoples who don't have enough fund, Individual resources are not enough to do the business so 10-15 peoples come together and combined their individual resources which may provide them more weightage by selling on large scale. They get mutual benefit, high profit and also economic benefits. Globally some 750,000 cooperatives serve 730 million members. The first cooperative society was established in the year 1843 in Britain named as Rochdale equitable pioneer society. It was a group of 24 members they were handloom weavers.

The International Cooperative Alliance (ICA, 2005) defines a cooperative as “an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise”.

The cooperative society consists of several principles.

Cooperatives in Goa:

Goa is one of the smallest states in India it lies in the coastal area of country hence known as konkan. Goa is the 25th state in union of India, liberated on 19th December 1961 from Portuguese rule. Goa is mainly known for its

beauty which includes beaches. Goa's economy is highly depended upon the tourism and mining sector. Goa is also called as 'Gomanchal' that means a land of cows. Agriculture is the main activity practiced in Goa.

In 1962-63 the cooperatives are established in Goa. It adopted the Maharashtra cooperative society act 1060 after 40 years it formed Goa cooperative society act 2001. In Goa 2244 cooperative societies were there, which includes 11495 members out of which only 163 were the dairy cooperatives including the membership of 19895. (Popker, Guntur, 2015)

Dairy Cooperatives:

In agriculture the important role is played by the dairy cooperatives and hence is the largest employment potential. Dairy cooperative has four level, consisting of National Dairy Development Board (NDDB), state federations, milk unions and dairy cooperative societies operating at the national level, state level, district level, village level. The milk union controls the primary dairy cooperative societies and are focused in this study. The operation flood has played a very important role in increasing the number of milk production. Cooperative dairy societies

achieves the major credit for increase in dairy production. In 2008-09 the annual value of milk production in India is estimated to be 1430 billion. (Popker, 2015).

Introduction to Operation Flood :

Operation flood is taken for smallholder dairy production initiative which leads to dairy cooperation movement. It is the largest dairy scheme in the world. It includes India's most successful programmes taken for rural development. The National Dairy Development Board (NDDB) was founded in 1965 it was established with a specific task of encouraging the formation of producers cooperatives. Along with Indian Dairy Cooperatives (IDC) its efforts have been named as 'operation flood'. (Atkins, 1989)

National Dairy Development Board :

NDDB is a statutory body it was founded on July 1965 the founder of NDDB is Dr. Verghese Kurien it has its headquarters in Anand, Gujarat, India. It owns ministry of fisheries, Animal husbandry and dairying, government of India. The cooperative dairy program is started by the NDDB in the year 1989 with respect to protect the interest in member's participation in cooperatives.

Functions of Dairy Cooperatives

- Monthly payment to farmers is given usually they supply them milk. So after supplying milk the days on which the members supply them milk is counted and at the end of the month based on price fixed the members are given monthly payment.
- Regular collection of milk is done by the cooperatives at the selected area the members have to come with their cans and give milk to the cooperatives milk is collected in the morning and evening that is twice a day.
- Deliver milk to the milk union after the collection of milk is done from the members.
- Provides veterinary health care services to the dairy farmer's animal like first aid in any emergency or artificial insemination. It also provides insurance to their cattle's.
- Contribution to the development of rural as most of the farmers belongs to village area.

Milk federation is the apex body which collects the milk from its members and supplies the milk in the various areas after the process of milk testing is done. In Goa the milk federation is "Goa State Cooperative Milk Producers Union" - Goa Dairy.

Growth of Indian Dairy Cooperatives :

Indian dairy has a great transformation since the operation flood has been introduced in india launched in 1970 by NDDDB. India today is ranked as the world's second largest milk producer. As compared to agricultural commodity the value of the output through dairy is the largest. This should be also included that milk is ranked as the 2nd among all the 12 group of food consumption items in the country. (Mukherjee, 1995).

Goa State Cooperative Milk Producers Union "Goa Dairy"

Goa dairy is the apex body of dairy cooperatives.it was established in the year 1984. it is spread all over Goa. 19100farmers families are involved as the member of Goa dairy.65000 litres of milk per day is supplied to the Goa dairy by its members.

Goa dairy supply milk to the urban and semi urban area over 95000 liters of milk per day. 440 milk booths are established all over the Goa.

Goa state cooperative milk union is awarded the 1st place in all India dairy

excellence award in the year 2017 in west zone i.e Maharashtra, Goa, Gujarat, and Madhya Pradesh in 1 lakh from NDDB.

Functions of Milk Federations:

- Marketing of milk and milk products is done by milk federations. There is no need to promote the milk and milk products.
- Coordination/ cooperation with the primary dairy societies as they supply them milk which is collected from its members.
- To help in the rural development by providing various services to its members who are living in the village area.

Primary Dairy Cooperative :

The primary dairy cooperative performance is influenced by the factors like: supply of feed and fodder, veterinary services, sincerity of members, working capital etc. (popkar)

In Goa there are approximately 176 primary dairy co-operative operating at the village level. But it is noticed that only 15 to 20 percent of member milk producers are participating, and supplying the milk to dairy societies.

2. Literature Review :

Awoke (2021) assessed member commitment in agricultural cooperatives: evidence from Ethiopia. The data is collected through a survey, a questionnaire was given. The convenience sampling method was used. The qualitative and quantitative data is obtained

through a semi structured questionnaire. The qualitative data is analyzed through interpretation and conceptual generalization. The quantitative data is analyzed through SPSS software.

Jitmun, et.al (2020) assessed the factors determining farmer's membership of dairy cooperatives in Thailand, using primary data gained from 385 randomly selected dairy farmers. Descriptive and econometric analysis were applied to analyze the collected data. The study shows educational level, dairy farming experience, herd size and distance to the milk collecting centres had positive significant influence whereas the square of the herd size and monthly payment period had negative significant influence on farmers' membership of the cooperatives.

Tenzin, Natsuda (2019) identified social capital enhances individual households income and community development in rural areas, It also examines the influence of cooperatives in social capital formation. The case study is undertaken of pam dairy cooperatives. The study reveals that social capital eases information availability and sharing, improves technology, reduces transaction costs, and facilitates collective actions. A cooperative membership, which is considered as structural social capital, fosters cognitive social capital such as level of participation, interactions and trust among cooperative members.

Assefa, et.al (2019) tried to find out status and roles of primary dairy cooperatives in service delivery, market linkages and their major constraints. Data was collected from primary and secondary source. The primary data was collected from 6 primary dairy cooperative societies by using semi-structured questionnaires, focus group discussions, Key informant interview and Field observation. Secondary sources of data was collected office of the Selale Dairy cooperative Union, the Districts' Livestock and Fishery Resource Development office, the District Cooperative office, the Federal and Regional Cooperative Bureaus, and other published and unpublished documents. From the study we can conclude that the dairy cooperatives provide training and advisory services, AI service, veterinary service and concentrate feed supply to their members through the service provisions are not that much satisfactory which could be attributed to poor linkages among the dairy cooperatives and other actors in the milk value chain.

Dohmwirth, Hanisch (2017) focuses on economic empowerment of women in the field of agriculture. Primary data is used and descriptive analysis is selected. Limited comparability between members of mixed gender and women-only groups as regards control over household decisions. Future studies on women's empowerment through collective action should incorporate a larger sample size so as to better enable direct comparison between different groups of women and contexts.

Wani et.al (2016) identified member's participation and their satisfaction in the working of dairy co-operative societies under Jammu and Kashmir Milk Producers Co-operative Limited (JKMPCL). The data is collected from primary source. 160 respondents are collected.

Ombui (2015) the role of dairy cooperative societies in providing services to small holder dairy farmers in kiambu district, kenya. 6 dairy societies 14

societies and 15 farmers were randomly selected from each selected society. A questionnaire was distributed among the members. Regression models, descriptive statistics techniques were used.

Shah (2011) examined the effectiveness of Amul by comparing the procurement prices offered by the dairy cooperatives to the cost of producing milk. The primary data is collected through a draft questionnaire. The study was conducted in Navli, 60 respondent are collected it was found that the Amul dairy cooperative provides a great services to its members like fodder and veterinary care, the current procurement prices do not result in significant profits for the milk producers.

Chaudhary, upadhyaya(2013) tried to find out about the socio-economic impact of dairy cooperative during May 2008 to dec. 2008.primary source is used to collect the data from dairy cooperatives, milk producers and secondary data from published reports. Qualitative and quantitative data is collected from 224 dairy farmers OD MPC, Mahuli. Primary data was collected through questionnaire, interview and field observation. Regular meeting of farmers have provided them opportunity for mutual harmony and sharing their socio-economic impact. Dairy cooperative makes society organized, harmonized and helpful. Dairy cooperative helps to create awareness in health, sanitation, and education to the farmers. It also helps to promote woman's empowerment program in the society.

Anbu, Sampathkumar (2012) highlighted the farmer's satisfaction with the dairy cooperative societies. This study is empirical in nature and primary source of data has been used to collect the data from eight selected DCS in Tamil Nadu through a developed interview schedule. Out of 17 milk unions under TCDF, 4 milk unions were selected under stratified proportionate random sampling procedure. The satisfaction of farmers with DCS was measured with the help of Bhanja (1981) scale with some modification. The active participation of member farmers in different affairs of cooperative societies inculcate the sense of belongingness within them and they feel happy becoming more satisfied with the societies. Constraints serve as impediments for member farmers in getting accrued benefit of several provisions within the cooperatives and the members develop the hostile or non- cooperative attitude towards societies. The emergence of such feelings degrades the satisfaction level of farmers with the functioning of cooperative societies.

Nishi, et.al (2011) assess the dairy farmers' satisfaction with dairy cooperative societies. The study was conducted in purposively selected organization i.e. PCDF, Uttar Pradesh. Out of 31 milk unions under PCDF, 4 milk unions were selected under stratified proportionate random. Organizational participation, market potential and economic motivation were found to have strong influence on the satisfaction level of farmers; however, the prevailing constraints negatively contributed towards farmers' satisfaction with the functioning of DCSs. by using pre tested and structured interview schedule. The respondents are selected through the stratified sampling technique. The study further indicated that though majority of the respondents were found satisfied with the selected indicators but to optimize the overall satisfaction there is an immediate need to start provision of technical inputs like subsidized feeds and medicines, fodder seeds etc, and other services like doorstep AI services, emergency animal health care, animal insurance etc.

Corinne L. et.al (2009) studied about the empowerment of women dairy farmers in India 184 female dairy farmers in 8 villages in India. The 12 empowerment indicators were factor analysed using principal components factor analysis.

Ortmann and RP king (2007) assessed the history and theory of, and problems associated with, traditional agricultural cooperatives. This is a conceptual study having only theories the success of agricultural cooperatives are adapting their operations to the rapidly changing economic environment characterized by technological changes and many more.

3. Research Gap :

After reviewing all the papers we found that most of the research paper are on Dairy cooperative societies. But there is not much focus given to study which includes all the meaning of terms used in the dairy cooperatives societies as well as there is no focus given on the awareness of dairy cooperatives among the people.

4. Research Problem :

Up to date there is not much focus given to the factors influencing members satisfaction with the primary dairy cooperatives, this study is conducted to know factors influencing membership of farmers along with the level of awareness about the cooperative milk societies policies and procedures. This study will help the cooperative societies to make their members aware about the policies and procedures of cooperative society.

5. Research Questions :

1. What are the factors which influences the farmers to be a part of dairy cooperatives?
2. What is the level of satisfaction with the dairy cooperatives?
3. What is the level of awareness among the members about the cooperative milk societies policies and procedures?
4. What is the dairy farm profile of the member?
5. What is the period of involvement of farmer into dairy society?

6. Research Objectives :

To study the factors that influencing membership in primary dairy cooperatives.

To study the farmers satisfaction with the dairy cooperatives.

To study the level of awareness of members about the dairy cooperative milk societies policy and procedures.

Data Collection Method And Tools For Analysis:

The primary data is collected from the members of dairy cooperatives. 100 questionnaire was distributed out of which only 70 responses was received. The data is collected through a draft questionnaire. The period of this study is from October to December. This study is applicable only to the state of Goa. The data collected, analyzed through SPSS software. The techniques such as correlation, factor analysis, regression, frequency is used to analyse or interpret the data collected.

Analysis And Findings:

Table No. 1 Demographic Profile

Demographic profile		
1.Gender	Frequency	Percent
Male	64	91.4
Female	6	8.6
Total	70	100.0
Age group		
Upto 18	2	2.9
19 to 28	15	21.4
29 to 38	3	4.3
39 to 48	11	15.7

(Continued...)

49 to 58	19	27.1
Above 59	20	28.6
Total	70	100.0
Education		
Upto 10	24	34.3
10 th pass	23	32.9
12 th pass	18	25.7
Graduate	5	7.1
Total	70	100.0
Marital status		
Married	55	78.6
Unmarried	15	21.4
Total	70	100.0
No. of members in family		
Less than 4	12	17.1
4 to 6	47	67.1
More than 6	11	15.7
Total	70	100.0
Main source of income		
Agriculture	16	22.9
Employment	19	27.1
Sale of milk	32	45.7
Pension	3	4.3
Total	70	100.0
Annual income		
Less than 1 lakh	4	5.7
Rs. 1 lakh to 5 lakh	53	75.7
Rs. 5 lakh and above	13	18.6
Total	70	100.0

Source: Author's Compilation Through of Primary Data

Table no. 1 illustrates demographic profile of the respondents who are the members of dairy cooperative society. The gender of the respondents that is 91.4 % are male and only 8.6% are females out of 100% respondents. The above table also indicates about the age group of people it is seen that most of the people are belonging to the age group of above 59 and very less people belonging to the age group of upto 18 out of 70 respondents. Most of the respondents have their education level upto 10th and only 7.1% are

graduated. 78.6% respondents are married and 21.45 are unmarried. 15.7% members have 6 members in their family and 67.1% respondents have 4 to 6 members in their family. The main source of income of the respondent is sale of milk that is only 4.35 of respondents get pension. The annual income 75.7% respondents have their annual income upto rs. 1 lakh to 5 lakh. Only 5.7% of respondents have their annual income that is less than rs.1 lakh.

Table No.2: Dairy Farm Profile

Dairy farm profile	Frequency	Percent
Period of engaged in dairy farming		
Less than 1 year	2	2.9
1 to 5 years	15	21.4
More than 5 years	53	75.7
Total	70	100.0
Breed of dairy cattle		
Native cow	19	27.1
Jersey	18	25.7
Buffalo	33	47.1
Total	70	100.0
No. of cattles owned		
Less than 5	25	35.7
5 to 10	13	18.6
11 to 15	14	20.0
16 to 20	12	17.1
More than 20	6	8.6
Total	70	100.0
Shed provided to cattle		
Open shed	8	11.4
Cadjan shed	7	10.0
Cement shed	50	71.4
Concrete shed	5	7.1
Total	70	100.0

Source: Author's compilation from primary data

Table no. 2 indicates the dairy farm profile of respondents. About 75.7 % of respondents are engaged in dairy farming for more than 5 years. Out of 70 respondents only 2.9% respondents are engaged in dairy farming for less than

1 years. Most of the respondents have buffalo breeds of dairy cattle in their farm that is 47.1% and jersey cattle is very less in their farm. About 35.7% of members own less than 5 cattle whereas only 8.6% owns more than 20 cattle. Cement shade is provided most by the respondent to their cattle that is 71.4% and least preferred is concrete shed that is only 7.15% of respondents out of 70.

Table No.3: Quantity of Milk (Per Day)

Qty of milk (per day)	Frequency	Percent
Qty of milk received per day		
1 to 2 litres	3	4.3
2 to 3 litres	10	14.3
3 to 4 litres	11	15.7
Above 5	46	65.7
Total	70	100.0
Qty of milk sold to dairy cooperatives		
1 to 5 litres	21	30.0
5 to 10 litres	21	30.0
10 to 15 litres	7	10.0
Above 15 litres	21	30.0
Total	70	100.0
Qty of milk sold to customers		
1 to 5 litres	42	60.0
5 to 10 litres	16	22.9
10 to 15 litres	7	10.0
Above 15 litres	5	7.1
Total	70	100.0

Source: Author's Compilation Through of Primary Data

Table no.3 illustrates the quantity of milk (per day) received sold to customers and dairy cooperative society. Quantity of milk received per day by most of the respondents is above 5 litres and less of the respondents supply only 1 to 5 litres to the dairy cooperative. The quantity of milk sold to customers in which 60% respondents supply 1 to 5 litres.

Table No.4: Dairy Cooperative Societies Profile

Dairy cooperative societies profile	Frequency	Percent
Motivation to become dairy farmer		
Personal interest	29	41.4
Good income	10	14.3
Low education	12	17.1
No tax on agriculture income	1	1.4
Parents	18	25.7
Total	70	100.0
Year of membership in dairy cooperatives		
Less than 2 years	3	4.3
2 to 5 years	9	12.9
5 to 10 years	15	21.4
More than 10 years	43	61.4
Total	70	100.0
Attendance of training programmes of cooperatives		
Regularly	33	47.1
often	18	25.7
Rarely	6	8.6
Never	13	18.6
Total	70	100.0

Source: Authors Compilation Through of Primary Sources

Table no.4 shows the dairy cooperatives profile of a member. It seen that 41.4% of respondents have their personal interest to become the dairy farmer. Out of 70 respondents only 1.4% of members are motivated to be a dairy farmer because there is no tax on agriculture. About 61.4% of members have membership in dairy cooperatives for more than 10 years. Out of 70 respondents only 47.1% respondents attends training prorammes of cooperatives regulary and 8.6% of members attend rarely.

Objective 1 : To study factors influencing membership in primary dairy cooperatives.

This objective will help us to know about the different factors that influences the farmers to be a part of dairy cooperatives.

Table No.5 : Factor Analysis

FACTORS:					
(overall $\alpha = 0.764$) $n=12$		F1	F2	F3	F4
F1:services (.799) $n=4$					
Veterinary health care	.803				
Provision for					
animal feed	.657				
Secure market	.877				
Job security	.706				
Kmo: 0.582					
F2:benefits (0.650) $n=4$	F1	F2	F3	F4	
Education about work		.629			
Monthly payment		.760			
Distance to the area of milk collecting		.826			
Immediate cash payment		.418			
Kmo:0.582					
F3:buying and selling (.591) $n=3$					
Milk treatment facility			.654		
Marketing of the product				.772	
Lowers the cost of establishment			.701		
Kmo:0.582					
F4:resources(-) $n=1$					
Limited resources				.838	
Kmo:0.582					

Source: Authors Compilation Through Primary Data

Table No. 6: KMO Measure

Factors	F1	F2	F3	F4
KMO measure of sampling adequacy 0.582				
Eigen value	3.541	2.118	1.431	1.263
Variance explained	29.508	17.651	11.923	10.528
Cronbach's alpha	.764			
Total variance explained	69.61			
No. of items	4	4	3	1

Source: Author's Compilation Through Primary Data

The KMO value in above output is 0.582 which is greater than the acceptable limit of 0.05 hence, we conclude that the sample taken is adequate for factor analysis.

The factor analysis extracted 4 factors namely services, benefits, buying and selling and resources. The overall reliability of the factor analysis has been assessed using cronbach's alpha is .764 which is above acceptable limit of 0.5

Factor 1 consists of 4 statements which are related to services. The reliability of factor 1 is .799 which is greater than acceptable limit. Hence, the factor is reliable 29.5% of the variance is explained by factor 1

Factor 2 consists of 4 statements which are related to benefits. The reliability of factor 2 is .650 which is greater than acceptable limit. Hence, the factor is reliable. 17.6% of the variance is explained by factor 2.

Factor 3 consists of 3 statements which are related to buying and selling. The reliability of factor 3 is .591 which is greater than acceptable limit. Hence the factor is reliable. 11.92 % of the variance is explained by factor 3.

Factor 4 consist of only 1 statement which is related to resources. The reliability of factor 4 is Nil which is less than the acceptable limit. Hence the factor is not reliable.10.52% of the variance is explained by factor 4. Overall, all the factors are explained 69.61% of the variance.

Table No. 7: Correlation Between Income And Membership Year

ANNUAL INCOME	YEAR OF MEMBERSHIP IN DAIRY COOPERATIVES
Pearson Correlation	.014
Sig. (2-tailed)	.910
N	70
N	70

Source: Authors Compilation Through Primary Data

H₀: There is no significant relationship between year of membership in dairy cooperative society and annual income.

H₁: There is significant relationship between year of membership in dairy

cooperative society and annual income.

P value for annual income is 0.910 which is more than 0.05 hence we failed to reject null hypothesis hence we conclude there is no significant relationship between year of membership in Dairy Cooperative society and annual income.

Objective 2: To study the level of satisfaction in the dairy cooperative society.

Members who are engaged in the dairy farmers have certain experience about the dairy cooperatives. This objective will help us to know the level of satisfaction of dairy members.

Table No. 8: Regression Analysis

Model	B	Unstandardized Coefficients		Sig.
		Std. Error		
1	(Constant)	6.206	1.152	.001
	Qty milk sold to dairy co- operative	.116	.130	.403
	Year of membership in dairy cooperatives	.174	.157	.304
	Annual income	-1.224	.423	.023
	Attendance of training programmes of cooperative	-.136	.157	.416

Source: Author's Compilation Through Primary Data

Hypothesis :

H₀: There is no significant impact of selected variables on satisfaction

H₁: There is a significant impact of selected variables on the satisfaction

P value for quantity of milk sold to dairy cooperative is 0.403, which is more than 0.05, hence we failed to reject null hypothesis and conclude that there is no significant impact of quantity of milk sold to dairy cooperatives on the satisfaction. Coefficient value of quantity of milk sold to dairy cooperatives is 0.116 which is positive hence it shows positive impact of quantity of milk sold to dairy cooperatives and satisfaction.

P value for year of membership in dairy cooperative is 0.304, which is more than 0.05, hence we failed to reject null hypothesis and conclude that there

is no significant impact of quantity of milk sold to dairy cooperatives on the satisfaction. Coefficient value of quantity of milk sold to dairy cooperatives is 0.174 which is positive hence it shows positive impact of quantity of milk sold to dairy cooperatives and satisfaction.

P value for quantity of milk sold to dairy cooperative is 0.023, which is less than 0.05, hence we reject null hypothesis and conclude that there is a significant impact of quantity of milk sold to dairy cooperatives on the satisfaction. Coefficient value of quantity of milk sold to dairy cooperatives is -0.116 which is negative hence it shows negative impact of quantity of milk sold to dairy cooperatives and satisfaction.

P value for quantity of milk sold to dairy cooperative is 0.416, which is more than 0.05, hence we failed to reject null hypothesis and conclude that there is no significant impact of quantity of milk sold to dairy cooperatives on the satisfaction. Coefficient value of quantity of milk sold to dairy cooperatives is -.136 which is negative hence it shows negative impact of quantity of milk sold to dairy cooperatives and satisfaction.

Objective 3 : To study the level of awareness of members about the dairy cooperative milk societies policy and procedures.

The members who are engaged in dairy cooperative society are not aware about the different policies and procedures that are provided by the cooperative milk society. So this objective will help us to know about how much members are aware about the policies and procedures.

Table No.9: Correlation

Level of awareness with respect to policies and procedures	Year of Membership in dairy cooperatives	
Cooperative Societies Act	Pearson Correlation	.249*
	Sig. (2-tailed)	.038
	N	70
Cooperative Bye Laws	Pearson Correlation	.222
	Sig. (2-tailed)	.064
	N	70
Cooperative Dairy Schemes	Pearson Correlation	.007
	Sig. (2-tailed)	.957
	N	70

Society Meeting	Pearson Correlation	.102
	Sig. (2-tailed)	.399
	N	70
Cooperative Elections	Pearson Correlation	.260*
	Sig. (2-tailed)	.030
	N	70
Basis Of Price Fixing	Pearson Correlation	-.246*
	Sig. (2-tailed)	.040
	N	70
Profit Distribution	Pearson Correlation	-.111
	Sig. (2-tailed)	.360
	N	70
Stages Of Marketing	Pearson Correlation	.024
	Sig. (2-tailed)	.847
	N	70
Animal Health Care Policy	Pearson Correlation	-.266*
	Sig. (2-tailed)	.026
	N	70
Principles Of Cooperative Milk Society	Pearson Correlation	-.135
	Sig. (2-tailed)	.265
	N	70

Source: Author's Compilation Through Primary Data

Table no. 9 shows the level of awareness of members with respect to dairy cooperative milk societies policies and procedures.

Hypothesis:

H₁: There is a significant relationship between level of awareness of members and ear of membership in dairy cooperative society.

H₂: There is a significant relationship between level of awareness of members and ear of membership in dairy cooperative society.

P value for all selected variables is statistically significant hence there is a significant correlation between year of membership in dairy cooperative society and cooperative society's act, cooperative election, basis of price fixing and animal health care policy. Hence the variables are less than 0.05 hence we reject null hypothesis hence we conclude there is significant relationship between year of membership in dairy cooperatives and selected variables.

P value for all selected variables is statistically significant hence there is no significant correlation between year of membership in dairy cooperative society and cooperative byelaws, cooperative dairy schemes society meeting, profit distribution, stages of marketing, animal health care policy, principles of cooperative milk society. Hence the variables are more than 0.05 hence we failed to reject null hypothesis hence we conclude there is no significant relationship between year of membership in dairy cooperative and selected variables.

Conclusions And Findings

Dairy cooperatives play a very vital role in providing livelihood to the farmers engaged in the dairy farming. Most of the farmers are depended upon the dairy farming. dairy farming is an important part of agriculture. In Goa there are approximately 176 primary dairy co-operative operating at the village level.

On the basis of survey of 70 responses are collected from a draft questionnaire sample random sampling technique is used. After collecting all the responses the data is analyzed through SPSS software. The study concludes that the services provided by the dairy cooperatives influences more to the farmers to be a part of dairy cooperatives. The dairy cooperatives provides the facilities or services to its members on the basis of that members are satisfied with being the part of dairy cooperative society. Cooperatives milk society forms certain policies and procedures for its members but members are not much aware about the policies and procedures of the society. The study shows that members are aware about the cooperative society but not much. The members should be made aware about the different policies and procedures of cooperative societies.

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Goa Dairy: Business Model and Supply Chain in the State of Goa

Deykar Yashodhan L.*

Abstract :

The smallest state in the country, Goa is known for its culture and traditions worldwide. The main activities which provide a livelihood to Goans include fishing, agriculture, and dairy. Dairy cooperatives were started in 1984 with some of the rural producers thinking of getting better prices for their milk, which then increased from a small number to a considerable number. The apex body in this regard was named Goa State Cooperative Milk Producer, which widely came to be known as 'Goa Dairy.' Goa dairy is one of the well-known dairy in Goa, and it receives milk from primary dairy societies. The primary clubs receive the milk from the producer farmers, and in return, the producers are given reasonable prices for the milk.

The study aims to know about the business model, functions, and day-to-day activities carried out in Goa Dairy and attempt to understand their supply chain network, including primary dairy societies, dairy farmers, transportation routes, and others.

The study focuses on understanding their business model by identifying the various departments within the organisation, their functions, etc. Secondly, the study also helps to know more about the supply chain of Goa Dairy, including variables such as the number of transport vehicles, number of transportation staff, the route for the transport of milk, and also the collection of milk. The study focused on the Goa dairy contribution towards primary societies and milk producers by highlighting the schemes given and the benefits of Goa Dairy to the primary societies and milk producers. The study also describes the marketing techniques used by the selected dairy to market their products and explore the technology used to preserve milk and manufacture the different products of the same raw material.

*Student: M. Com Part I, Post-Graduate Department of Commerce
Government College of Arts, Science and Commerce, Khandola- Marcela, Goa

Keywords:

Business model, cooperatives, Goa dairy, milk producer, primary society, supply chain.

1. Introduction :

Cooperative is the tool for bringing people together. Through cooperatives, people who belong to the same community with mutual economic, social, and cultural needs come together. Cooperative is controlled by its members, and the people who work are willing to provide help and benefit their members. Members are looked like a customer. Here, the member benefits are based on use and not ownership but not in the case of primary private business type. Here, the user benefits from the buying and selling transaction to receive an excellent and reasonable price for their Goods. Sometimes, the user also helps from the cooperative's profit, which the user returns with the cooperative.

1.2 Evolution of Cooperative :

The evolution of cooperatives was general because of the slow and stable development of the economy and society. Cooperative use to exits now and then, so revolutionary process was yet to come in the evolutionary process. New history was made by breaking old history. This time was called or known as the "Strategic Change in Time," which defined changes in management principles and fundamental rules of business. The modern Cooperative movement was founded by Rochdale pioneer in 1844 in Lancashire, England. Its motive was to provide the community with an affordable alternative to poor quality and contaminated food. After this, people worldwide came to know about this. Thus, the cooperative movement flourished, around the world. In India's quarter of the 19th century, cooperation was the origin. This cooperation will help the poor farmer. Cooperation farmer from the clutches or the frauds done by the moneylender. The cooperative societies act 1904 was inaugurated by the cooperative movement. In India, the cooperative movement was introduced as a State policy that owes the enactment of the cooperative societies act 1904. In the economy of India, cooperatives play a vital role. The great admirer of cooperatives was our first Prime Minister, Pandit Jawaharlal Nehru. The main reason for the expansion of cooperatives registered in the different sectors was because the Agricultural sector was given priority in the Five-Year Plan. During the 60th National cooperative week in the state, the movement was founded in 1962, soon after liberation. The cooperative

helps in improving and correcting some faults. Thus, the objective of the cooperative was equitable distribution of wealth helps in the growth of cooperatives in different sectors like agriculture, credit, consumer, housing, dairy, etc. The cooperative was formed to eliminate vested interest and exploitation of ordinary people. Under Maharashtra state cooperative societies act 1960. Until the Government of Goa enacted their show established in 2001 w, “e Goa Cooperative Societies Act 2001. and in 2003, rules were formed under “The Goa Cooperative Societies Rules 2003” and came into force after 5 years.

1.3 Goa Dairy :

Goa Dairy is one of the well-known dairy cooperatives across the state and the country. Goa dairy is an apex body of 178 cooperative dairy societies. They also have 18000 farmers as their members. They receive 60% milk from the farmers. The remaining 40% is imported from other states. They receive milk from the primary society around the state. The milk is brought from them at a reasonable price. The collected milk is then taken to Goa dairy for further process, after which it is then sold in the market.

2. Literature Review:

Gea D. M. Wijers (2019) studied the dairy development practice in Indonesia. The study's conclusions contribute to debates on more resilient, thus sustainable working relations in food chains, women's empowerment, gender equality, social justice in agriculture, and cooperative studies.

Jos bijman (2018) explored the suitability of the cooperative model in dairy-based on the case study in the Netherland. The objective of the case study talks about the evolution of dairy cooperatives over the period. The study revealed that market conditions were unfavourable for the many small farmers, and the state followed a strict non-intervention policy.

Rahul S Mor et al. (2018) studied the supply chain practice in the dairy industry. The study's findings indicated that logistics and transportation facilities are the most critical factor as a productivity barrier in cooperative milk processing units in northern India.

Rahul S. Mor et al. (2017) identified the significant trends and factors of the dairy sector. The study's findings indicated that poor logistics and transportation facilities are the most critical factor in a productivity barrier in cooperative milk processing units in northern India.

Asmaraa et al. (2017) study was done to understand the Relationship Analysis between the Service Performances of Milk Producer Cooperative with the Dairy Farm Performance of Members. The study found that the performance of small-scale dairy farms of MPC members was relatively low in terms of productivity and profitability.

Dohmwirth et al. (2017) examined the critical effects of women's empowerment through cooperative membership. The study found that collective organisations in the dairy sector that systematically excluded men may fail to increase women's empowerment at the household level.

Popker et al. (2015) the researchers analysed the growth of dairy cooperatives in Goa. The study revealed that several dairy societies registered in Goa were in the number of milk producer members has shown a significant positive trend. Share capital and milk collection have also written a considerable growth but, in the case of working capital study, observes development with fluctuation.

M.Subburaja et al. (2015) examined the issues in improving the operational efficiency of the dairy supply chain in Tamil Nadu, India. The study revealed that the primary motivations for conducting this research work are the lack of per capita availability of milk in Tamil Nadu compared to some selected states in India and a less remunerative milk procurement price to dairy farmers.

R. R. Panta et al. (2015) evaluated the framework for traceability and transparency in the dairy supply chain networks. The study found that governance mechanisms dovetailing various stages of the DSCN are presented in terms of their gaps and adequacy. Critical components of the proposed frameworks are harmonisation of national standards with codex standards, hygiene control, strengthening quality control systems, enhancing information flow across stages, animal health care, disease-free zones, and formation of cooperatives of small dairy processors (CSDP) in line with the present dairy cooperative society.

3. Research Gap :

After the literature review researcher came to know that 60% of the study was done on the business model of the dairy cooperative, The researcher also studied the supply chain which dairy cooperatives practice. She also learned the departmental functions of dairy cooperatives and the supply chain followed in India and other parts of the world. A limited study was done in Goa on the

Goa Dairy. Thus, the current research focuses on the business model of Goa Dairy and how

4. Research Questions :

- A) How do the different departments help a dairy cooperative's day-to-day functioning?
- b) How do they reach every customer in the rural and urban parts of the state?
- c) How does Goa Dairy contribute to primary societies and milk producers?

5. Research Objectives :

- A) To understand the different departments of the Dairy Cooperative in the state of Goa
- b) To study the supply chain and collection of their products.
- c) To know contributions toward the primary societies and milk producers.

6. Research Methodology :

The study was conducted in the state of Goa. The study was carried out from 28 October 2021 to 24th November 2021. The source of data is primary and secondary for the survey. The technique used in the research was an interview. The Head of the department and the managing director of the cooperative were respondents.

7. Discussion And Findings:

7.1 To understand the different departments of the dairy cooperative in the State of Goa :

Business Model :

A business model helps us to know about the Goa Dairy function. The study helps to know the different departments of the Goa Dairy and their role in day-to-day activities. Goa dairy provides quality milk in the market, which allows them to survive in the market. Goa dairy has many storage units in different parts of the state, which will enable them to transport their product all over the state. Goa Dairy does not have a single product to sell, but they have several products. The study also helps to know how the production of the products of different goods is done in one single unit.

It helps how the schemes are provided to the milk producer. The producer is benefited in terms of fodder for their cattle which will give nutrition for the milch animal. Sometimes they also offer medical check-ups for the cattle.

And various training programs are held for the farmer to learn the new method and update themselves.

Organisation Structure:

Processing Unit :

The processing unit is one of the most crucial departments in Goa dairy. There are various divisions under this department. The first is the quality control division and processing division. This department looks after the production packing of the different milk products and storing them. The other products include Toned milk, Standard Milk, High Fat Milk, Homogenized Milk, Flavored Milk, Lassi, Curd, Chach, Cream, Butter & Ghee. The department's function is to manufacture milk and milk products according to the market demand; the production department keeps the record by maintaining the register, which holds the record of production detail, the effect produced on that particular day, etc.

The Production Manager performs his duties by ensuring that his department's activities are carried out smoothly. He ultimately gives his efforts for the safety of workers by doing regular checking, maintaining, and replacing the machinery.

Personal & Administration Department :

The Personal Department takes care of all recruitment & training processes of employees in the Union. This department is responsible for providing all schemes and facilities from Union to the employees which include providing apron for the various department, towels, soaps, shoes, provident fund, Ganesh Chaturthi bonus to all the employees, and staff of the union, ESI (Employee State Insurance), etc. The manager looks for the personal management, training, safety, and security of all employees, etc. the department maintains the entire payroll, rules, and regulations of the company. It acts as a timekeeper as they keep the check on the attendance and the personnel files records. This department handles all the legal matters of the union. This department managed to housekeep, keep surroundings clean, and do other administrative work. The recruitment of the employee or the required candidate for the particular job is done by this department, and also training is provided to the staff and employee.

Finance Department :

This department collects the financial data from various departments such as

procurement, personal, production, marketing, etc. The payments are made accordingly. This department makes payments to primary societies according to the data depending upon the fat contained and solid, not fat given by the quality control lab on the quality of the milk collected by the Goa Dairy from the primary society. The finance department prepares Payroll preparation and disbursement and keeps Budgetary control of the union. This department he nt does verification of all transactions. Preparing a financial statement after the financial year is completed by maintaining the book of recto will help the league for the timely payment to the contractor, farmer, etc. They also help in the timely payment of their employee’s salaries in the union. Therefore, help in payment to all the government dues. The Head of the department sees that all the business transactions relating to finance are adequately prepared. He keeps overall control of all accounting functions and ensures timely service to other departments within the limits of the company’s policies and guidelines. At the end of each financial year, he finalises the financial statements, prepares a report stating the financial position of the Union, and submits it to the managing director, who will help them with planning and working on the financial situation of the union.

Procurement Department:

The procurement department is one of the most critical departments of Goa Dairy as it is linked with all the primary societies. This department looks after the procurement of the milk societies. There is a total of approx.: 181 registered dairy cooperatives and 173 members in the state. The milk collection is done with the help of 24 milk collection routes and 3 tanker routes. The collection routes are–organised, and time was revised so that the milk reaches the exact time at R.M.R.D (Dairy Plant).

Most of the dairy cooperative is in profit. The procurement department keeps supervision on all the dairy societies in 15 days. The procurement department visits all dairy cooperatives to check their books of account, quality of milk collection, etc. They give training programs to all the committees of the primary societies as per their need or demand. They organise a CMP program for all the societies. They provide them with all the stationery items when required.

Functions of the Procurement Department:

The procurement department is close to dairy cooperatives as compared to another department. Some of the duties are as follows

- Helps in problem-solving in cooperative societies

- Help make provisions for bringing milk from dairy cooperative societies to manufacturing plants.
- Helps in implementing various schemes and training programs for the cooperative societies
- Keeps a check on all the activities of the cooperative societies.
- It also organises various awareness and educational programs to primary societies for spreading pure milk to the societies.

Quality Control Lab :

Quality control lab is the department where the quality of the milk and milk products is checked to check whether it is up to the customer's rate. The milk quality creates confidence in the customer's mindset the product they buy is worth it. The primary function of the producer is to maintain confidence by selling quality milk. So, the taste is conducted to keep that taste and faith in the customer's mind. And for this purpose, the quality control lab is there is Goa Dairy.

Functions of Quality Control Lab:-

- The quality control checks the quality of raw milk from the primary dairy and fits the finished good before it is available. And also, advise production department about the same.
- It also accepts customer complaints regarding the product's taste, studies analysed and takes corpreventiverecautionary action to better the product.
- It verifies whether the quality and the taste of finished produced milk and milk products are as per the taste and the benchmark set in the market.

Marketing Department:

The cooperative has made the brand in the product they sell in the market. And milk and milk production as the rising demand in the market. It is just because of the pain that each worker and employee has taken to maintain the quality and improve the milk and milk products and reach out to each customer and every corner of the state. The main motto of the union was to give the customer the milk and the milk product fresh and as quickly as possible.

The customers are reached through several booths and centres spread

over urban and semi-urban regions in the state. More and more efforts are taken to increase the sales network and cover up as much area so that they can reach every customer and improve the accessibility of milk and milk products.

Functions of this Department

- The department looks after the market of products of Goa Dairy all over Goa.
- It also helps set up milk vending booths and other sale outlets all over Goa.
- It assures that transportation costs are reduced by reorganisation of supply routes.
- They advertise the milk and the milk product of Goa dairy in all possible ways. To promote the products of Goa Dairy through all imaginable ways.
- This department helps build the brand and image of the products in the mind of the customer and the market.
- The marketing department meets the demand for milk and milk products in the market on time.

Veterinary Department :

Milk is the essential product of the thpartnershipon, so the union helps the primary socieprovideiding animal husbandry and veterinary service to the farmer to get healthy milk from the healthy milk animals. The veterinary department looks after the development and maintains the health of the cow and buffalo. The main objective of this department was to increase provide the best most healthy fodder to the animal so that they increase milk productivity. They also conduct various training programs for the farmer and educate them about the same to all the farmer members of their cooperative. (ie. Milk producers of Goa State Cooperative Milk Producers Union) & motive them for rearing the milch animal for the same.

Functions of the Veterinary Department :

- A. It provides cater service to members to provide them input training and activities.
- b. It provides health and medical facilities to the milk-giving animal for the member of the society.

- c. It also provides a 50% discount on all the medicines required by the animal.
- d. It gives various schemes to the farmer and loan.
- e. It encourages the farmer to milk rearing animals.

Cattle Feeder Plant Department :

The cattle feeder plant is part of the veterinary department. Here the union provides the fodder seed to the farmer to yield, and then a healthy crop is given to the milk giving animal so they can increase milk giving capacity. Cattle feeder plants also provide nutrition and fodder to the pregnant cow during delivery. They also have their carter service for any injured animal. They also give treatment to the wounded animal. They provide time-to-time vaccination to the animal.

Engineering Department :

The Engineering Department is one of the crucial departments as it plays a vital role in the union's functioning. It looks after the employee's safety and makes the workplace comfortable while working in a union.

Functions of this Department :

The engineering department takes care of the safety of the employees in the union and provides better and more comfortable working facilities to them. They help the employee be familiar with the new machinery introduced in the union. This department also informs about the machinery and its functions. They ensure a continuous supply of electrical power to all the departments.

Purchase Department :

Look after the purchase of the materials required for manufacturing the product. The production department talks about the purchase of anything in a union to purchase department., Then, the purchase department orders that particular thing from the market. Later, the purchase bill is given to the accounts department, where the bill is settled.

Stores Department :

Stores department where the manufactured goods are kept. It is given

according to the demand for that particular product. It only includes the goods with an extended expiry date so that it doesn't get spoiled and the company shouldn't suffer the loss.

How does the dairy cooperative run or its Business Model?

The day in the Goa dairy starts with the procurement of milk from various primary dairy societies through their respective routes. The milk is collected by the different milk vans allotted on the specific course. According to the road and primary society, the milk is ordered to the dairy. The milk is then checked by the quality check department, where they check the fats and SNF of the milk, and the data is entered in the computer. After which, the milk is pasteurised in the tank. The marketing department tells the production department about the demand of the milk and milk products according to the market demand, known to them by the supplier and booth owner. Then the production produces the milk and milk products accordingly. The milk is processed and supplied on that particular day, but in the case of other products, they manufacture according to the demand. In the mid-time, the procurement decides the amount paid to the primary dairy cooperative according to fats and SFN in the milk collected from that society. The amount is transferred once in fifteen days. The processed milk is converted to the final product. Then the milk and milk products are transported to retailers and booths according to their demand.

7.2 Supply Chain And Collection of their Product :

Supply Chain :

Milk is the most critical factor in Goa Dairy. The organisation has a huge demand for milk and milk products. The Dairy makes sure the consumer's need is satisfied and tries to supply their milk to each consumer in the state of Goa. Goa Dairy should have excellent and reliable transport services to help the dairy reach the consumer.

Goa Dairy has their transport, or sometimes they also hire the vehicle to collect the milk. Goa dairy has a mobile cooler vehicle to supply their product for the long route. They receive the milk from the primary societies and are transported to the processing plant where the processing is done, and once the processing is done, the milk is supplied to their booths and some to retailers.

Detail of milk collection from routes :

Table no 1: Showing different routes, number of societies type of vehicle milk collected in morning and evening and total kilometre

Route number	No of Dairy cooperative societies	Vehicle	Milk collected		Total KMS
			Morning	Evening	
1	12	Tata 407	62	33	129.4
2	8	Tata 407	58	32	214
3	10	Tata 407	50	36	181
4	9	Tata 407	58	25	364
5	10	Tata 407	41	31	144
6	7	Tata 407	50	25	288.2
7	12	Tata 407	46	22	284
8	9	Tata 407	44	25	350
9	10	Tata 407	50	36	230
10	9	Tata 407	53	36	216
11	6	Tata 407	58	22	151
12	7	Tata 407	43	21	184
13	10	Tata 407	52	29	274
14	8	Tata 407	59	31	332
15	6	Tata 207	28	16	207
16	7	Tata 207	37	36	100
17	5	Tata 207	37	15	180
Total	145		826	471	3828.60
Average	8.52		48.58	27.70	225.21

Source: Compiled From Secondary Data

17 routes cover 145 milk booths, covering 3828.60 km per day. They collect 826 milk cans daily in the morning and 471 in the evening. The average of the cooperative dairy societies is 8.52. Also, the standard of milk that can collect in the morning is 48.58 and in the evening is 27.70 at an average distance of 225.21 per route per day. The dairy uses 14 Tata 407 models, and the remaining are Tata 207.

Detail of Milk Collection From Shuttle Routes :

Table no 2: Showing different shuttle routes, number of societies type of vehicle milk collected in morning and evening and total kilometres

Route number	Number of dairy cooperatives societies	Vehicles	Milk collected		Total KMS
			Morning	Evening	
1	5	Tata 207	37	15	180
2	7	Tata 407	55	30	206
3	4	Tata 207	36	18	70
4	1	Tata 207	13	3	116
5	6	Tata 207	39		88
6	4	Tata 407	46	36	74
7	1	Tata 207			46
Total	28		226	102	780
Average	4		32.28	14.57	111.42

Source: Compiled From Secondary Data.

The daily shuttle route includes seven routes. The average of cooperative dairy societies on the shuttle route basis is 4. The average course based on shuttle route milk cans during the morning time is 32.28 and during the evening time is 14.57 at an average distance is 111.42

How can the supply chain be improved?

The supply chain can be proved by having a backup van for the uncertainty occurring while transporting the milk from the primary dairy cooperative to the processing plant.

They should try to manage to collect the milk from the route where there is less number of primary societies.

7.3 Contribution towards primary societies and milk producers.

Goa dairy is the apex body with several primary societies under it. These primary societies have several members under them. The Goa dairy uplifts their member and primary societies by providing different schemes and

help. Some plans are mentioned below.

- The Goa dairy helps the producers pay the loan they have taken for their cattle. Where the Goa dairy produces 25% of the loan amount, the primary societies pay 25%, and the farmer pays the remaining 50%.
- Goa dairy provides fodder to their farmer at a meagre price and gives the cattle LIC schemes.
- Goa Dairy provides the cattle with nutritional fodder during pregnancy and a medicines facility at 50% concession from the market price.
- Goa dairy provide the training program to the new member from the primary societies so that he or they can understand their responsibility.
- Goa Dairy provides stationery items to the primary societies, after which the amount is deducted from their account during their payment of milk.
- Goa dairy provides financial assistance to the farmer when damage occurs in natural calamities.

8. Finding :

The Backbone of the Cooperative Is The Primary Dairy Society And Its Member. The Goa Dairy Gets More Supply From The Primary Societies And Their Members. Goa Dairy Is Giving Lots of Encouragement And Benefits To Cooperatives Societies And Their Member. They Also Have Their Special Department For Taking Care of their Cattle And Providing Them With Fodder.

9. Conclusion :

Goa dairy is an apex body of all primary dairy cooperatives. The study is conducted to know the different departments of Goa Dairy and its day-to-day function. It also helps see how the milk is converted into the final milk product and supplied or reached to its customers. The study also helps to know the supply chain, the number of routes, and the kilometres each course covers on a particular day. The data-related departmental functions were asked through the interview, where unstructured questions were asked to the Head of the specific department. The route information was obtained through the data provided by Goa Dairy. The study revealed different schemes and contributions of Goa Dairy towards its primary dairy cooperative societies and milk producers.

10. Suggestion :

- i. The Goa Dairy should keep the backup or the standby vehicle if there is any breakdown on the route.
- ii. They should increase the number of Bulk Milk Cooler vans.
- iii. They should come with new and innovative marketing schemes.
- iv. They should come with the new product in the market.

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A study on Goa Bagayatdar Society : Model of farmers strenghtening

Bharne Riya R. *, Desai Rudraksh R.**

Abstract :

Co-operatives are business organisations owned and run by their members. They are involved in many economic, agricultural, and marketing activities. Co-operatives play a vital role in society by helping in improving the living and working conditions of both men and women. In an agriculture-based and developing country like India, farmers must understand the benefits and facilities of agriculture and marketing-based co-operatives. Goa Bagayatdar is the largest producer and marketing co-operative society in Goa. Hence, it is selected by the researcher to understand the factors influencing farmers to supply their produce to Goa Bagayatdar, their beliefs in co-operative principles, and level of farmer satisfaction towards the services provided by the co-operative. The first objective is to study the different factors influencing farmers to supply their produce to Goa Bagayatdar. The study's second objective is to examine the difference between the member and non-member farmers' beliefs in co-operative principles. This will allow the researcher to understand whether the member/ non-member farmers genuinely believe in the co-operative principles. The third objective of the study is to evaluate the level of member/non-member farmer satisfaction towards services provided by Goa Bagayatdar. The study is empirical and based on primary data collected through structured questionnaires distributed among the farmers in Goa who supply their agricultural produce to the co-operative. The study highlights the different aspects in which Goa Bagayatdar helps the local farmers, like providing them with good quality products such as fertilisers, seeds, irrigation equipment that are the necessities of farmers. It also contributes by way of increased income level, profit margin, and standard of living among farmers. The study found that Goa Bagayatdar provides various facilities to its suppliers, encouraging other farmers to become its

*Student, M. Com Part I, **Student , M. Com Part II, P.G. Department of Commerce, Government College of Arts, Science & Commerce, Khandola- Marcela, Goa

supplier. It also follows co-operative principles wisely, and its members are reasonably satisfied with its functioning.

Keywords:

Co-operative, Farmers, Goa Bagayatdar, Members, Non-members.

1. Introduction :

As defined by the International Cooperatives Alliance (1995), a co-operative is "an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise" (www.ica.coop). A co-operative society is an organisation where individuals come together voluntarily and start a business venture. They become its members and share the gains among themselves. A co-operative society can be formed to fulfil its members' social, economic, or cultural needs. A co-operative society can be created for agricultural, marketing, manufacturing/producing, promoting cultural and traditional activities. The profits earned by a co-operative society from such activities are divided between its members, which raises their income and helps them increase their standard of living. The members can determine how to use the revenue generated from the enterprise to meet their other social and cultural necessities and desires (Wanyama, 2009).

The co-operative society members form an executive committee to manage it, which consists of President, Secretary, Treasurer, and other members. They consider necessary decisions for the well-being and growth of their co-operatives. According to the International Labour Organization (ILO), the co-operative members also enjoy several benefits for their risk (ICA 1995).

1.1 Growth of Co-operatives :

Co-operatives were formed even before the actual trading took place. As we know, co-operatives were included among the members who had everyday needs, through which they met with their basic needs of livelihood. Hence, co-operatives worked as an instrument to protect the interest of their members by providing them with the basic facilities of life. They came together, produced or collected, and sold the items in which they were skilled. People used to practice farming, hunting, gathering, and then they used to sell or exchange (barter system) those items to survive.

The first co-operative established was Rochdale Pioneers of England in 1884 (Mori, 2014). The ordinary people and workers faced great difficulties to earn their livelihood as the prices of necessary commodities increased rapidly, but their income as labourers and workers were meagre with long working hours; that's why this co-operative was formed. It consisted of 28 people; by profession, they were weavers and skilled workers of different types of trade. They opened a small shop to sell their goods and set up some principles to help them work smoothly.

At first, they only opened the shop for two days a week. But slowly their demand started increasing, so they opened the shop five days a week. They even made some of their customers their members, and every member got a share in the organisation's profits. The amount of money they earned through this co-operative was more than they made by working in the market as labourers. In India, the evolution of co-operatives can also be considered to grow at a fast speed. Various types of co-operatives are being formed. Some of which are credit co-operatives, marketing co-operatives, fisheries co-operatives, dairy co-operatives, agricultural co-operatives, students' co-operatives, employees' co-operatives, women co-operatives, etc.

Earlier, people in Goa were governed under the provisions of the Maharashtra State Cooperative Societies Act, 1960, and its rules. Initially, it was restricted to some Urban Cooperative societies, services, sugar factories, and consumers. But after some time, it started to cover the whole state under it. Due to eliminating the entrusted interest and exploitation of people in Goa, The Goa Cooperatives Societies Act was enacted in 2001. Although the Act was passed in 2001, it was implemented in 2008, with a thought to get a positive change in Goa's co-operative sector. From then onwards, Goa's Co-operative sector kept on rising to result in the growth of the economic position of Goa (Popker, 2015).

1.2 Importance of members for a Co-operative :

Members are the main foundation of any co-operative. A co-operative itself is formed to fulfil the needs of its members. Some main essential things that members do for a co-operative are:

- a) provide investment,
- b) provide commodities to sell,
- c) ensures smooth functioning by electing a committee,
- d) becomes a member voluntarily.

The members play a crucial role in forming and growing any co-operative. Member satisfaction means the members' experience, which they experience when their expectations are fulfilled, which they had before joining the organisation (George, 2013).

1.3 Principles of Co-operatives:

Principles are the basic foundation for forming any co-operative society. Hence, even co-operatives have made some basic principles that they should follow. These principles are listed below (official website of Goa Bagayatdar).

Voluntary open membership: Membership of the co-operative should be available for anyone who wants to join it without any conditions.

Democratic member control: There should be a democratic member control system in every co-operative, which gives every member of the co-operative the right to cast his vote or present his opinion in any important decision regarding the co-operative.

Economic participation of all members: Every member should get his share in the profits accurately, based on the number of shares he holds.

Autonomy and independence: A co-operative should be an autonomous and independent body. It shouldn't be wholly owned or dependent on Government or private institutions.

Education, training, and information to members: The co-operative members should be provided with the necessary education, training, and information as and when needed. Training programs and workshops by experts should be held to provide them with accurate knowledge.

Cooperation among co-operatives: There should be harmonious cooperation centrally and at the state level. Mismatch in collaboration with other co-operatives can lead to a negative impact on consumers and society.

Concern for community: Co-operatives should be concerned about the community and surroundings they are functioning in. Different activities should be held for people that can benefit society.

Socio-Economic Development: A co-operative should ensure socio-

economic development by engaging workers from weaker sections of the society and women from rural areas to help them raise their economic status.

1.4 Goa Bagayatdar :

Goa Bagayatdar Sahakari Kharedi Vikri Sanstha Maryadit is the biggest cooperative society in Goa. Currently, it has 29 branches spread all over Goa, and its head office is in Ponda-Goa. It has more than 9500 members at present. They elect their committees, consisting of 19 Directors who function on behalf of the whole co-operative for five years.

At Ponda-Goa, this society was registered as “Central Supari S.K.V. Society Ltd.” on 31st July 1964. Its initial capital was Rs.10500/- only, which its 116 members contributed. Its area of cooperation was limited to the state of Goa only. In the first year of its establishment, its members increased to 250, and its share capital was raised to Rs.31800/- which also included the contribution of Rs. 15000/- from the Government of Goa. When it was started, it only had the sole objective of getting a better price for Arecanut (supari) produced by its members. In the first year of its operation, it earned a profit of Rs. 800/- only, but it was a successful start for the society with one secretary, one clerk, and two staff members.

In the year 1975, a significant change took place as the Government of Goa decided to merge “Goa Coconut Producers Co-operative Marketing and Processing Society at Margao with the Supari Society and therefore the name of the society was changed to “Goa Bagayatdar S.K.V. Society Ltd.". Later on, as there was an increase in the paid-up capital the name of the society was finally changed to "Goa Bagayatdar Sahakari Kharedi Vikri Sanstha Maryadit”.

To become a member of Goa Bagayatdar, a person must have business with it of at least a minimum amount of Rs. 20,000/- per year. If the person is eligible to be a member, they have to purchase the shares of Goa Bagayatdar, which costs Rs. 200/- per share (official website of Goa Bagayatdar).

The only benefit given to the members compared to non-members is that they get the dividends for their share and are eligible to go for Goa Bagayatdar’s annual picnic.

2. Literature Review :

Kashyap and Bhuyan (2020) analysed member participation and satisfaction across demographic and economic characteristics. The study was based on primary data. It found that if the co-operative management pays attention to what makes their members satisfied, then they can expect to have increased participation by members, which, in turn, is beneficial for the co-operative. Prasertsang et al. (2020) assessed the factors of member satisfaction with the activities of horticultural co-operatives in Thailand. The study was empirical, and a primary data source was used to collect the data from 290 respondents. It found that horticultural co-operatives are influenced by business participation, attendance in meetings, investment in shares, the value of the business, trust in the committee, profitability, flow of information, and coordination with developing organisations, years of membership, variety of services, the presence of business partners, and the suitability of the location of the co-operatives. Grashuis and Cook (2019) investigated the organisational growth of farmer co-operatives tied to increased heterogeneity in member attitudes and perceptions. A better understanding of the complex inter-relationships of member attitudes and perceptions was necessary to find possible solutions. Data was collected from 1116 respondents. The result of the study suggested that the long-term survival of farmer co-operatives was not only dependent on their financial performance but also the utility of their members. In terms of member attitudes and perceptions, trust and mission support may offer the best opportunities for farmer co-operatives to substitute member satisfaction and thus address the negative consequences of heterogeneity.

Benos et al. (2018) studied a comprehensive dashboard for a co-operative performance assessment that harmonises business–social aspects and catalogues the essential components for future attempts. The primary data source was used to collect the data from 17 respondents. This inquiry was particularly wise for the social outlook and the ignored role of co-operatives as a socially-embedded organisational form that hardly documents its social impact and outreach. Fiona (2017) aimed to better understand the non-financial reporting and measurement landscape for co-operatives, especially what tools and indicators were available and could be taken up by co-operatives. The study was descriptive. Many non-financial impact measurement tools were available; they were not standardised across devices; however, they could be used for different purposes. There were very few cooperative-specific tools. They were developed for other purposes and had different motivations and implementation practices. There were very few with measurable indicators and aligning metrics.

Hakelius and Hansson (2016) examined whether and how members' perceptions of agency problems shape their attitudes toward agricultural co-operatives regarding the decision and follow-up problems. The primary data source was used to collect the data from 2250 respondents through a structured questionnaire. In this study, perceived agency problems suggestively explain members' attitudes to their co-operatives. Therefore, working with these problems can be a way for directors of co-operatives to influence members' attitudes and, in continuation, behaviours to these. This would be one way of developing more sustainable member-director relationships in these co-operatives. Liebrand and Ling (2014) evaluated correlations between factors related to member satisfaction with their co-operatives. The study found that the dairy farmers' livelihood depends on their milk being efficiently marketed and receiving the highest possible price. Dejene (2014) identified the members' perception of the success level of agricultural marketing co-operatives factors influencing the success of rural marketing cooperatives and investigated the significant predictors for the success of agricultural marketing co-operatives. It identified six critical factors for the success of AMC's: member participation factor, member commitment factor, structural factor, communication factor, managerial factor, and external factor. George et al. (2013) analysed a conceptual model for identifying positive, co-operative behaviour in member organisations, especially co-operatives, leading to successful organisational performance. The study was conceptual. It found the moderating influences of member participation, member attributes, and member attitudes on member satisfaction. Such aspects were discussed as these can determine whether the organisational performance improves or declines over a while.

Othman et al. (2008) investigated factors influencing co-operative membership and their share capital increment. Primary sources of data were used to get responses from 380 respondents. The study showed that age, occupation, AGM attendance, and membership duration are essential predictors in the model. Österberg et al. (2007) explored to which extent the members' assessment of their co-operatives' degree of success was related to various member attributes, with particular reference to the members' perception of their participation in the governance of the co-operatives. Primary sources of data were used to get responses from 2250 respondents. The results indicate differences in members' co-operative commitment and their trust towards directors due to farm operations profitability, age, and experience as directors.

3. Research Gap :

Worldwide, various studies on the co-operatives about dairy co-operatives in the majority, while limited studies are found on marketing and producers co-operatives. Earlier researchers have studied various aspects such as co-operative management satisfaction level, point of view, and customer satisfaction. But studies on member/non-member farmers' satisfaction, their beliefs in the collaborative model, and factors influencing them to join the co-operatives are limited. Hence, this study will throw light upon aspects such as, what are the various factors (facilities and services) that influence farmers to supply their produce to Goa Bagayatdar, to know whether there is any significant difference between the beliefs of the member and non-member farmers and the satisfaction level of the farmers towards Goa Bagayatdar.

4. Statement of the Research Problem :

Agriculture is the core activity in the state of Goa. Many families depend upon agriculture for their livelihood. Hence, Goa Bagayatdar plays a vital role in encouraging agricultural activities by providing a direct source of income to farmers and indirectly contributing to the upliftment of several households' social and economic status in Goa. Goa Bagayatdar Sahakari Kharedi Vikri Sanstha Maryadit is Goa's largest producer and marketing co-operative and acts as a role model for several other co-operatives. It also pays a perfect amount of revenue to the Government in GST, market fees, sales tax, TDS, etc. It also acts as a medium while implementing various government schemes for the farmers. It has more than 9500 members all over Goa. Many studies have been done on agricultural co-operatives about customer satisfaction, management satisfaction, and member satisfaction. But in Goa, limited research has been done on farmer satisfaction about Goa Bagayatdar. The management, the customers, and the members seem to have no significant idea about the functioning and all the facilities provided by Goa Bagayatdar to their members and suppliers. This study will help such members and suppliers to understand their co-operative more clearly.

5. Research Questions :

The research questions of the study are as follows.

- a) What factors influence farmers to supply their produce to Goa Bagayatdar?
- b) Is there a significant difference between the members' and non-members' beliefs in the co-operative principles?
- c) What is the level of farmer satisfaction towards Goa Bagayatdar?

6. Objectives of the Study :

The objectives of the study are as follows.

- To study the different factors that influence the farmers to supply their produce to Goa Bagayatdar.
- To examine the difference between the members' and non-members' beliefs in the co-operative principles.
- To investigate the farmer satisfaction level towards Goa Bagayatdar.

7. Research Methodology :

The period of the study is from October 2021 to November 2021. The study respondents are the farmers from rural areas who supply their produce to Goa Bagayatdar from all over Goa. For conducting this study, primary data sources were used to get responses from 135 respondents from different parts of Goa; structured questionnaires were distributed over other areas in Goa. Questionnaires were in hardcopy, and Google forms were given to the respondents at their convenience. The technique of random sampling and SPSS 20 software were used in data collection and data analysis. A five-point Likert scale was used to evaluate the responses.

8. Analysis And Discussion :

A) Demographic Profile of the Respondents

Table 1. Demographic Profile

Variables	Particulars	Frequency	Percentage
Years	21-30	7	5.20
	31-40	27	20.00
	41-50	43	31.90
	51-60	35	25.90
	61 & above	23	17.00
	Total	135	100.00
Gender	Male	117	86.70
	Female	18	13.30
	Total	135	100.00
Qualification	Primary school	26	19.30
	Up to 10 th	51	37.80
	Up to 12 th	36	26.70
	Graduation	19	14.10
	Other	3	2.20
	Total	135	100.00

(Continued...)

Family members	1-3	28	20.70
	4-6	84	62.20
	7-9	19	14.10
	10 & more	4	3.00
	Total	135	100.00
Annual income (in Rs.)	Less than 1 lakh	56	41.50
	1-3 lakh	56	41.50
	3-5 lakh	20	14.80
	5 lakh & more	3	2.20
	Total	135	100.00
Area of cultivation (in sq. meters)	2000 & less	77	57.03
	2001-4000	17	12.60
	4001-6000	11	8.15
	6001-8000	7	5.18
	8001-10000	6	4.43
	10001-12000	4	2.96
	12001-14000	1	0.75
	14001-16000	1	0.75
	16001-18000	2	1.49
	18001-20000	6	4.43
	20001 & more	3	2.23
Total	135	100.00	
No. of workers working in the field	Less than 3	62	49.60
	3-5	52	41.60
	6 & above	11	8.80
	Total	135	100.00
No. of family members working in the field	Less than 3	89	69.54
	3-5	34	26.56
	6 & above	5	3.90
	Total	135	100.00
Years involved in farming activities	Less than 5	2	1.49
	5-10	34	25.19
	11-20	40	29.62
	21-30	27	20.00
	31 & above	32	23.70
	Total	135	100.00
No. of years of being a member/non-member supplier	Less than 3	5	3.70
	3-5	24	17.78
	6-10	35	25.93
	11-20	45	33.33
	21 & above	26	19.26
	Total	135	100.00

(Continued...)

Produce grown and supplied	Areca nuts	70	30.83
	Coconuts	48	21.15
	Vegetables	40	17.63
	Cashew	25	11.01
	Paddy	23	10.13
	Black paper	21	9.25
	Total	227	100.00

Source: Primary Data

Table 1 illustrates the demographic profile of the respondents, which includes;

Age (in years): 31.90% of the respondents belong to 41-50, whereas around 25.9% and 17% belong to 51-60 and 61 & above, respectively. Only 5.2% of the respondents belong to the age group of 21-30 years.

Gender: majority, i.e., 89.6% of the respondents are males, and only 18 out of 135 respondents are females.

Qualification: the majority of the respondents, i.e., 37.8%, are educated up to 10th std. Whereas 36 out of 135 respondents are educated up to 12th. 2.2% have chosen other options comprising certificate courses and other things.

Several family members: the majority of the respondents, i.e., 62.2%, have 4-6 family members, whereas 20.7% of respondents have 1-3 family members. At the same time, only 3% of the respondents have 10 and more family members.

Annual income: the majority of the respondents, i.e., 41.5%, have an income level of below 1 lakh and 1-3 lakhs. Only 2.2% of the respondents have a high income of 5 lakh and more.

Area of cultivation: the majority of the respondents, i.e., 57.03%, have 2,000 sq. meters and less cultivation area. At the same time, almost 12.60% of the respondents have 2,001-4,000 sq. meters of space. At the same time, only 2.23% of them have an area of 20,001 sq. meters and more.

Several workers working in the field: the majority of the respondents, i.e., 49.6%, have less than 3 workers working in their field. At the same time, 41.6% of the respondents have 3-5 workers. In comparison, only 8.8% of them have 6 & more workers working in their field.

Many family members working in the field: the majority of the respondents, i.e., 69.54%, have less than 3 family members working in their field. Whereas 26.56% of the respondents have 3-5 family members, and only 3.9% have 6 & more family members working in their field.

Several years involved in the farming activities: the majority of the respondents, i.e., 29.62%, have been engaged in farming activities for 11-20 years. At the same time, 25.19% of the respondents are involved for 5-10 years. Almost 23.7% of them have farming experience for 31 and more years.

The number of years has been a member or supplier of Goa Bagayatdar: the majority of the respondents, i.e., 33.33%, have been a member or supplier (non-member) of Goa Bagayatdar for 11-20 years, 25.93% of them for 6-10 years and 19.26% of them are from 21 years and more.

Produce grown and supplied: 30.83% of the produce grown and supplied is of areca nuts, followed by 21.15% of coconut, 17.63% of vegetables, 11.1% of cashews, 10.13% of paddy, and 9.25% of black pepper.

B) Determining Different Factors That Influence The Farmers To Supply Their Produce To Goa Bagayatdar.

The first objective deals with the farmers who supply their produce to Goa Bagayatdar. To achieve this objective, factor analysis is used. Factor analysis is a grouping technique that helps to identify factors by grouping correlated variables.

Table 2. Showing Results of Factor Analysis

<i>Factors</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>
F1: Facilities and subsidies			
Get financial subsidy	.743		
Get timely payment	.824		
Get quality seeds	.530		
A ready market for the produce	.735		
Get fertiliser at subsidised rates	.753		
Get agricultural equipment	.672		
Get discounts and credit	.570		
Physical efforts made in selling goods are lesser	.611		

F2: Training and discount			
Discount is provided when shopping for other commodities.		.535	
Get insurance		.675	
Training or workshops are being held.		.719	
Provision for harvesting		.702	
Irrigation facilities are provided		.692	
No alternatives		.464	
My belief in the co-operative model		.698	
F3: Better price			
Get better prices for the produce.			.842
KMO method of sampling adequacy		.898	
Eigenvalue	6.913	1.615	1.195
Cronbach's alpha (α)	.881	.836	-
Number of items	8	7	1
Variance explained	43.209	10.095	7.470
Total variance explained		60.774	

Source: Primary Data

at 5% Sig

The KMO value in the above output is .898, more significant than the acceptable limit of 0.7. Hence, we conclude that the sample taken is adequate for factor analysis.

The factor analysis extracted 3 factors, namely F1: Facilities and subsidies, F2: Training and discount, and F3: Better price. The overall reliability of the factor analysis has been assessed using Cronbach's alpha is .812, which is above the acceptable limit of 0.7.

Factor 1 consists of 8 statements related to facilities and subsidies. The reliability of factor 1 is .881, which is greater than the acceptable limit. Hence, the factor is reliable. 43% of the variance is explained by factor 1.

Factor 2 consists of 7 statements related to training and discount. The reliability of factor 2 is .836, which is greater than the acceptable limit. Hence, the factor is reliable. 10% of the variance is explained by factor 2.

Factor 3 consists of 1 statement related to a better price. 7% of the variance is explained by factor 3.

Overall, all the factors explain 60.77% of the variance.

c) Determining the difference between the member and non-member farmers’ beliefs in the co-operative principles.

H0: There is no significant difference between the farmers' beliefs in co-operative principles concerning their membership in Goa Bagayatdar.

Table 3. Showing results of Independent Samples T-Test

Variables	Member mean	Non-member mean	Mean difference	T statistic	P-value	Hypothesis
Goa Bagayatdar should accept any farmer who wants to join	3.76	3.74	.02	.120	.905	Fail to reject
Goa Bagayatdar should practice one-member, one-vote when any decisions are made	4.20	4.10	.10	.534	.594	Fail to reject
Members should receive patronage dividends in proportion to patronage	4.27	3.89	.38	1.975	.050	Fail to reject
Goa Bagayatdar should be an autonomous and independent body	4.13	4.05	.08	.410	.682	Fail to reject
Goa Bagayatdar should support the education of suppliers and the public	4.35	4.08	.27	1.444	.151	Fail to reject
Goa Bagayatdar should work with other agricultural co-operatives	4.24	4.13	.11	.667	.506	Fail to reject
Goa Bagayatdar should have concern for the community	4.35	4.15	.2	1.022	.309	Fail to reject
Goa Bagayatdar should promote socio-economic development	4.31	4.08	.23	1.221	.224	Fail to reject

at 5% Sig

Source: Primary Data

P values in the case of all the selected variables are more than 0.05 level of significance. Hence, the researcher fails to reject the null hypothesis,

which indicates no significant difference between the farmers' beliefs in co-operative principles concerning their membership.

d) Determining the farmer satisfaction level towards Goa Bagayatdar.

H₀: There is no significant correlation between the overall farmer satisfaction and selected components of the co-operative.

Table 4. Results of Correlation And Overall Co-operative

<i>Variables</i>	<i>N</i>	<i>Pearson Correlation</i>	<i>Sig. (2-tailed)</i>	<i>Hypothesis</i>
Cooperative's pricing policies	135	.632**	.000	Reject
Cooperative's management of operating and marketing costs	135	.632**	.000	Reject
Co-operative management	135	.516**	.000	Reject
Cooperative board of directors	135	.603**	.000	Reject
Farm pick up services	135	.255**	.003	Reject
Providing marketing information	135	.487**	.000	Reject
Farm visits, interface between producers and co-operative	135	.343**	.000	Reject

Source: Primary Data at 5% Sig

P-value in the case of all the selected variables is less than 0.05 level of significance. Hence, the researcher rejects the null hypothesis and concludes that there is a significant correlation between the overall farmer satisfaction and components of the co-operative, which are co-operative's pricing policies, management of operating and marketing costs, management, board of directors, farm pick up services, providing marketing information and farm visits, interface between producers and co-operative.

H₀: There is no significant difference between farmer satisfaction regarding their membership

Table 5. Showing results of Independent Samples T-Test

Variables	Member mean	Non-member mean	Mean difference	T statistic	P-value	Hypothesis
Cooperative pays suppliers fairly for their products	3.82	3.61	.21	.960	.339	Fail to reject
Cooperative is more concerned about operations than about its suppliers	3.58	3.84	-.26	-1.347	.180	Fail to reject
Cooperative does an excellent job of marketing my products and returns the best price for my product	3.84	3.94	.10	-.504	.615	Fail to reject
Cooperative keeps suppliers well informed about its operations and programs	3.45	3.85	-.40	-1.748	.083	Fail to reject
Suppliers receive as much information as they need about operations and programs	3.27	3.94	-.67	-3.196	.002	Reject
I feel I am part owner of the co-operative	3.75	4.01	-.26	-1.258	.211	Fail to reject
Belonging to the co-operative is an integral part of my identity as a farmer	3.67	3.90	-.23	-1.150	.252	Fail to reject
I would discontinue my association with the co-operative if an alternative were available	3.44	3.03	.41	1.609	.110	Fail to reject
Co-operative suppliers have a significant amount of influence on how co-operative is run	3.53	3.79	.26	-1.246	.215	Fail to reject

Cooperative supports co-operative education for suppliers and the public	3.55	4.08	-0.53	-2.696	.008	Reject
I am satisfied with my association in the co-operative	3.84	3.83	.01	.055	.956	Fail to reject
I feel grateful to be a supplier of the co-operative	3.95	4.13	.18	-.897	.371	Fail to reject
I would recommend association with co-operative to another farmer	4.07	3.83	.24	1.211	.228	Fail to reject
I am satisfied with the quality of the communication	3.85	4.31	-.46	-2.187	.030	Reject

at 5% Sig

Source: Primary Data

P-values in the selected variables are more than 0.05 level of significance. Hence, the researcher fails to reject the null hypothesis and concludes that there is no significant difference between farmer satisfaction towards Goa Bagayatdar regarding their membership. The P-values in the case of m of the variables are less than 0.05 level of significance. Hence, the researcher rejects the null hypothesis and concludes that there is a significant difference between member and non-member farmer satisfaction towards Goa Bagayatdar regarding information about operations and programs, co-operative education for members, and quality of communication.

9. Findings :

- Goa Bagayatdar provides several facilities to its farmers' suppliers, which creates a drive among other farmers to supply their produce to Goa Bagayatdar.
- Respondents believe in co-operative principles irrespective of their membership and accept that Goa Bagayatdar follows the principles wisely.
- The majority of the respondents are satisfied with the overall working and services provided by Goa Bagayatdar; only a few are dissatisfied due to the lack of communication and market information provided to them.

10. Conclusion :

Goa Bagayatdar is the largest producer and marketing co-operative in Goa. It deals with an extensive supply chain: farmers supplying vegetables, fruits, and dairy products and other suppliers supplying different household commodities. Hence, it provides livelihood to many families in Goa. From this study, the researcher found many facilities provided by Goa Bagayatdar that influence farmers to supply their produce to Goa Bagayatdar. The study also highlights that the farmers strongly believe in co-operative principles. The majority of the farmers are satisfied with the facilities provided by Goa Bagayatdar, their overall cooperation, and their management. In contrast, some farmers are dissatisfied due to the lack of information and training.

11. Suggestions :

- A) The farmers supplying their produce to Goa Bagayatdar should be informed about the various facilities and services they are not entirely aware of, as awareness may increase the farmer satisfaction towards the co-operative.
- b) The management of Goa Bagayatdar should assess themselves to know the extent to which they are following the co-operative principles to identify the aspects they are lacking behind.
- c) The management should make some effort to examine the level of farmer satisfaction to supply their produce to Goa Bagayatdar.

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Dhananjay F. Munde*, Dr. Latika A. Ajbani**

Abstract:

Brand equity is the combination of brand image, brand association, brand awareness, brand asset and perceived quality factors. In cooperative sector there is immense need for branding, awareness, association, quality so that it is interesting and required aspect for the inclusive development of cooperative sectors in 21st century all over the India. Government of India have opened new and separate ministry for Cooperative sector; it should reach these sectors towards the target audience with qualitative approach for the success of cooperative sector. Cooperation or collective action, can be traced back towards our ancient predecessors who familiar the benefits of gathering and existing in groups moderately than on their individual. Under this study researcher conducted survey of the selected 50 respondents from the Shareholders of cooperative sector to understand impact of brand equity on cooperative sector in 21st century through a questionnaire. This paper highlight on the impact of brand equity on cooperative sector in 21st century. Under this study researcher will focus the concept brand equity and cooperative sector together. This study points out the importance of brand awareness, brand association and brand image in cooperative sector in 21st century. This study will help cooperative sector shareholders to identify the impact of brand equity on cooperative sector and be prepare for strengthening the qualitative and innovative strategies for the inclusive success of this sector in 21st Century Modern India.

Keywords:

Cooperative Sector, Brand Equity, Modern India, Brand Awareness, Ministry of cooperation.

*Ph.D. Student, **Assistant Professor, School of Commerce & Management, Yashwantrao Chavan Maharashtra Open University, Nashik

0.1 Introduction:

Cooperation is the asset of organization. It has given the additional value for the organizations effectiveness and accuracy. Brand is the key aspect of recent industry sectors. Cooperative sector is also considering branding to become successful in achieving the predetermined goals and objectives. Brand equity is the combination of brand image, brand association, brand awareness, brand asset and perceived quality factors.

0.2 Objectives of the Study:

1. To study the impact of brand equity on cooperative sector in 21st century.
2. To understand the importance of brand awareness, brand association and brand image for cooperative sector in 21st century.

0.3 Methodology:

Researcher developed self-administered questionnaire for this study. Researcher considered 50 respondent's opinions and thoughts as well as responses about impact of brand equity aspects (i.e. Brand Loyalty, Brand Awareness, brand Association, Brand Assets and Perceived quality) on cooperative sector in 21st century of India. The results of study analyzed and interpreted by the researcher through various statistical tools and techniques i.e. percentile analysis methods and correlational analysis methods.

Research published by the World Watch Institute found that in 2012 approximately one billion people in 96 countries had become members of at least one cooperative. ⁽⁸⁾ It indicates that the importance and need of cooperative sector all over the world. India is the major country of cooperative sector organizations. It has different and variety of portfolio of cooperative sectors i.e. manufacturing, social, legal, environmental, sports, educational, political, technological, entertainment etc. this study helps to identify the importance of cooperative sector in India in the 21st century.

0.4 Brands And Evaluation of Brands

0.5.1 Origin of Brands

Aaker (1991) stated that the brand is a distinguishing name and /or symbol (such as logo, trademark, or package design) intended to identify

the goods or services of either one seller or a group of sellers, and to differentiate those goods or services from those competitors. A brand thus signals to the customer and the producer from competitors who would attempt to provide products that appear to be identical.

Kapferer (2008) has mentioned that the brand is a sign -therefore external- whose function is to disclose the hidden qualities of the product which are inaccessible to contact. The brand served to identify a product and to distinguish it from the competition. According to him the challenge today is to create a strong and distinctive image.

Keller (2003) described that the technically speaking, then, whenever a marketer creates a new name, logo, or symbol for a new product, he or she has created a brand. However, those brands today are much more than that. As can be seen, according to this definition brands had a simple and clear function as identifiers.

0.5.2 Definitions of Brands

Aaker (1991) stated brand as " a noteworthy title, name or symbol such as hallmark, emblem, logo, package design or trademark which helps in recognition of the products or services of a marketer or a group of marketers, and to differentiate those products or services from those offered by competitors". Thus, a brand is beneficial in providing information to the consumers and to the producer in distinguishing a product from the products of other competitors who sell similar products.

Kotler (2000) defined branding as an essential matter to consider in the strategy of product. As the brand is merely a fragment of the product, the focus of the strategy of communication is toward exposing the brand and developing an image of the brand.

0.5.3 Brand Equity Conceptualization

Brand equity definitions have been advancing since the 1980s with various types of following additions with the period. Leuthesser (1988) defined brand equity as "a set of behaviors and associations on behalf of the brand's customers, parent corporation, and members of the channel".

The most well-known definition of brand equity by Aaker (1991) describes brand equity is "a set of brand assets and liabilities associated with a brand, its name and symbol, that enhances to or lessons from the value given by a product or a service to an organization or to that organization's customers".

Aaker (1991) and Keller (2003) further acknowledge brand equity as the extended or additional assessment or value that a firm can have from acquiring a reputed brand name. It depends upon the image in consumers' minds that they trust and associate with a product with a reputed brand name that is superior to other products with lesser-known names.

0.5.4 Classification of Brand Equity :

0.5.4.1 Firm Based Brand Equity(FBBE): FBBE is defined as "the financial value a brand creates for the organization".

0.5.4.2 Customer-Based Brand Equity (CBBE): Keller (1993) defined "customer-based brand equity as a unique result of brand knowledge on the consumer's reaction to the brand's marketing mix".

0.5.5 David Aaker (1991) Brand Equity Model:

Brand equity is the added value of the products. David Aaker (1991) and Kevin Keller (1993) studied in depth on the term brand equity. They developed brand equity models. David Aaker (1991) defines brand equity as, "a set of brand assets and liabilities linked to the brand its name and symbols that add value to, or subtract value from a product or service. These assets include brand loyalty, brand awareness, brand image, perceived quality and brand associations.

Aaker explained brand equity elements as follows:

0.5.5.1 Brand Awareness: Aaker (2000) revealed that brand awareness as a remarkably durable and sustainable asset.

0.5.5.2 Brand Loyalty: Kotler and Keller (2012), defined brand loyalty "As the brand's percentage of loyal customers goes up, market share increases and the brand becomes more profitable."

0.5.5.3 Perceived Quality: Aaker (1991) pointed out that perceived quality can be defined as the customer's perception of the overall quality or superiority of a product or service relative to alternatives.

0.5.5.4 Brand Associations: Aaker (1991) stated that the brand associations are anything that the consumer connects in his memory to the brand.

1.6.5.5. Brand Asset: every brand is special asset for users.

0.5.6 Data Analysis:

Researcher conduct survey of 50 cooperative members from cooperative sectors of Pune Smart City. Survey was conducted in the month of November-2021. Sample selected as per convenience sampling. Various statistical tools and techniques were used by the researchers under this study for data analysis.

Selection of cooperative sectors: Researchers selected three cooperative sectors under this study on the basis of following three criteria: Affordability, Usability and availability of the cooperative sector amongst the cooperative employees for this study.

Respondents Profile:

Table No. 1.6.8.1 Age Wise Classification of Respondents:

Age Category	No. of Respondents	Percentage (%)
21 to 40	15	30%
41 to 60	20	40%
61 to 80	15	30%
Total	50	100%

(Source: Data Collected Through Survey)

Interpretation: Table No. 1.6.8.1 shows that 20 respondents were 41 to 60 age category, 15% from 21 to 40 and 61 to 80 age. Majority of the respondents are from 41 to 60 age.

Table No. 1.6.8.2 Gender Wise Classification of Respondents

Gender Category	No. of Respondents	Percentage (%)
Male	35	70%
Female	15	30%
Total	50	100%

(Source: Data Collected Through Survey)

Interpretation: Table No. 1.6.8.2 shows that 70% Male and 30% were Female respondents participated under this survey.

Table No. 1.6.8.3 Cooperative Sectorwise classification of the Respondents

Gender Category	No. of Respondents	Percentage (%)
Cooperative Sugar sector	15	30%
Cooperative Milk sector	10	20%
Cooperative Bank sector	25	50%
Total	50	100%

(Source: Data collected through survey)

Interpretation: Table No. 1.6.8.3 indicate that majority of the respondents (50%) participated from Cooperative Bank sector while 30% from Cooperative Sugar sector and 20% from Cooperative Milk sector.

Table No. 1.6.8.4 Respondents recognitions about cooperative brands

Sr. No.	Unknown Brands	No of Respondents	Percentage (%)
1	Yes	35	70%
2	No	15	30%
Total		50 Respondents	100%

(Source: Data collected through survey)

Interpretation: Table No. 1.6.8.4 shows that majority of the respondents (70%) recognizes the cooperative brands whereas only 30% respondent's unknown about them. It indicates that popularity of the cooperative brands are higher in selected cooperative sectors.

Table No. 1.6.8.5 Brand loyalty of the respondents:

Sr. No.	Statements	DA (No.)	UD (No.)	AG (No.)
1	I consider myself to be loyal to this brand. (Loyalty)	5	5	40
2	This brand would be my first choice. (Choice)	7	3	40

(Source: Data collected through survey)

Interpretation: Table No. 1.6.8.5 shows that 40 respondents agree that

they are loyal and chose the brands they prefer whereas only 5 and 7 respondents are disagreeing with it. 5 and 3 respondents are undecided about it respectively.

Table No. 1.6.8.6 Brand Awareness

Sr. No.	Statements	DA (No.)	UD (No.)	AG (No.)
2	I am aware of this brand. (Awareness of Brand)	10	5	35
4	This brand provides excellent quality. (Quality of Brand)	7	3	40

(Source: Data collected through survey)

Interpretation: Table No. 1.6.8.6 indicate that 35 and 40 respondents agree with awareness and quality of the brands whereas 10 and 7 are disagree with it respectively. Only 5 and 3 respondents are undecided about it.

Table No. 1.6.8.7 Perceived Quality

Sr. No.	Statements	DA (%)	UD (%)	AG (%)
1	Brands Trustworthiness	15	5	30
2	Brands Value For money	10	5	35

(Source: Data collected through survey)

Interpretation: Table No. 1.6.8.7 shows that majority of the participants 30 and 35 agree with the statements that brand trustworthiness and brand value whereas 15 and 10 respondents disagree with it. Only 5 respondents undecided the trustworthiness and brand value of the cooperative brands respectively.

Table No. 1.6.8.8 Brand Associations

Sr. No.	Statements	DA (%)	UD (%)	AG (%)
1	Brands Image	5	10	35
2	Brands Fashion	10	10	30

(Source: Data collected through survey)

Interpretation: Table No. 1.6.8.8 suggest that 35 and 30 respondent agree that brand image and brand fashion have major impact on brand equity of the cooperative sectors whereas only 5 and 10 respondents disagree with it. Only 10 each of the respondents are undecided about it respectively.

Table No. 1.6.8.9 Brand Assets

Sr. No.	Statements	DA (%)	UD(%)	AG(%)
1	I don't miss the brand at any cause.	10	5	35
2	I like the brand for various reasons.	5	5	40

(Source: Data collected through survey)

Interpretation: Table No. 1.6.8.9 shows that 35 and 40 respondents agree the statements they dot miss brands any cause and they like brand for various reasons respectively whereas 10 and 5 are disagree with it. Only 5 each of the participants undecided about these statements.

Findings of the study:

1. 20 respondents are 41 to 60 age category, 15% from 21 to 40 and 61 to 80 age respectively. Majority of the respondents are from 41 to 60 age.
2. 70% Male and 30% Female respondents participated under this survey.
3. Majority of the respondents (50%) participated from Cooperative Bank sector while 30% from Cooperative Sugar sector and 20% from Cooperative Milk sector under this study.
4. Majority of the respondents (70%) recognizes the cooperative brands whereas only 30% respondent's unknown about them. It indicates that popularity of the cooperative brands are higher in selected cooperative sectors.
5. 40 respondents agree that they are loyal and chose the brands they prefer whereas only 5 and 7 respondents are disagreeing with it. 5 and 3 respondents are undecided about it respectively.
6. 35 and 40 respondents agree with awareness and quality of the brands whereas 10 and 7 are disagree with it respectively. Only 5 and 3 respondents are undecided about it.
7. Majority of the participants 30 and 35 agree with the statements that brand trustworthiness and brand value, whereas 15 and 10 respondents disagree with it. Only 5 respondents undecided the trustworthiness and brand value of the cooperative brands respectively.
8. 35 and 30 respondent agree that brand image and brand fashion

have major impact on brand equity of the cooperative sectors whereas only 5 and 10 respondents disagree with it. Only 10 each of the respondents are undecided about it respectively.

- 35 and 40 respondents agree the statements they do not miss brands any cause and they like brand for various reasons respectively whereas 10 and 5 are disagree with it. Only 5 each of the participants undecided about these statements.

Conclusion:

Cooperative sector has good days in 21st century. Particularly in India it has tremendous opportunities for the development in sugar, milk, bank, sports, education cooperatives sector in future years. Researchers studied the impact of brand equity on cooperative sector in 21st century under this survey. This study helps to understand the importance of brand awareness, brand association and brand image for cooperative sector in 21st century. Researchers found that brand loyalty, brand association, brand awareness, perceived quality and brand assets have major impact on cooperative sector brands to attract cooperative employees continuously. Researchers conclude that brand equity boost the confidence, trust, awareness, and likability among the employees of the cooperative sector to expand cooperative sectors.

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Youth Participation in Co-Operatives - A Case Study of Co-Operative Movement in Maharashtra State

Sukdeo B. Patil*

Abstract

Cooperatives are an important part of the economy to make positive socio-economic changes. Presently, co-operatives are struggling to retain their existence. Youths can play an important role to strengthen cooperatives. During Covid-19 youths have supported cooperatives to provide services to the public. Youth participation in co-operatives is inadequate. Deliberate efforts are required to be taken to increase their participation.

Keywords:

Workforce, opportunities, potential, encouragement, management, leadership, awareness, entrepreneurship, employment, income generation.

1.0 Introduction:

Co-operatives are an important part of our economy. The co-operative movement is recognized globally. Co-operatives are working in various areas. Co-operatives aim to achieve orderly development by observing Co-operative Principles & Values. Youths can play a very important role in co-operatives. Presently, in free economy co-operatives are facing a number of hardships. The co-operative movement emerged in England in 1844 & thereafter spread globally.

In India co-operative movement was officially started in the year 1904. In India, there are about 8.50 lakh & in Maharashtra 2.12 lakh co-operatives. Present participation of youths in co-operatives does not appear to be

*Additional Commissioner & Joint Secretary,
(Co-operation)(Retd.) Government of Maharashtra.

adequate. Presently a number of new areas are available for co-operatives where youths can be accommodated. Existing co-operatives have also adequate scope to offer better opportunities to youths.

2.0 Purpose of Study:

To identify reasons behind inadequate participation of youths, efforts being made to increase their participation, to locate new areas & suggest appropriate measures to attract youths towards co-operatives.

3.0 Research Question:

Whether Is Youth Participation Adequate in Co-operatives?

4.0 A case study of Maharashtra:

Maharashtra is a leading state in the progress of the co-operative movement. It has more in number, variety of co-operatives & large participation of members.

Table No.-1: Co-operatives in Maharashtra (As on 31/3/2020)

Types of co-operatives	Agriculture credit (Banks)	Agriculture credit (PACSS)	Non-agriculture credit	Marketing, processing	Producers	Social Services	Total
No. of Co-operatives	33	20,744	20,863	1,345	26,661	1,43,305	2,12,951

Source:- Maharashtra Co-operative Movement At a Glance-2020.

5.0 Methodology:-

A) For the purpose of conducting the present case study primary data has been collected through close end questionnaires designed for

(a) working co-operatives (15 questions) (Response-46)

(b) co-operators (15 questions) (Response 111) &

(c) administrative officers (10 questions) (Response 43)

The data received from respondents has been compiled, analyzed and findings have been drawn.

B) Discussions were held with the experienced personnel working in the co-operative movement, total of 200 responses.

C) Used available literature on the subject for references.

6.0 Data Analysis:-

Table No.-2: Types of co-operatives responded & their membership coverage

Respondents	No. of responses	Credit co-operatives	Producers co-operatives	Banks & consumer co-operatives	Membership		
					up to 5000	between 5000 To 10000	above 10000.
co-operatives	46	80.4%	8.7%	9%	30.4%	17.4%	52.2%

Q1: Whether youth participation in co-operatives is adequate:

Respondents to the questionnaires have stated in the majority that youth participation in co-operatives is not adequate.

Table No.-3: Level of youth participation

Respondents	No. of responses	Adequate participation	Inadequate Participation	No participation
Youths	46	23(50%)	23(50%)	---
Co-operators	111	13(11.7%)	92 (83.3%)	---
Administrative officer	43	--	---	43(100%)

The figures in the table above indicate that there is no adequate youth participation in co-operatives.

Q2: Need of youth participation:

To enable cooperatives to compete with the private/corporate sector, retain self-existence, become economically sound & provide better services to their members & public in general.

Table No.-4: Need of youth participation in co-operatives

Respondents	No. of responses	For betterment of co-operative movement	To bring novelty in co-operative movement	For orderly development of co-operative movement
Administrative officers	43	15(34.9%)	22(52.2%)	25(58.1%)

Q4: Nature of present youth participation in co-operatives:-

Presently, in some co-operative's youth participation is as regular/nominal members, management committee members & employees of co-operatives which is required to be increased.

Table No.-5: Nature of present Participation of youths in co-operatives

Respondents	No.of responses	Regular members	Management committee members	Employees
Co-operatives	46	27(58.7%)	20(43.5%)	8(17.4%)

Q5: Non-member Youths associated with co-operatives :

Some youths who are not enrolled as members but are associated with & are providing certain services to the co-operatives as indicated in the table below.

Table No.-6: Nature of services given by non member youths

Respondents	No. of responses	Pigmi agents	Coordinators	Employees
Co-operatives	46	25(54.3%)	9(19.6%)	26(56.5%)

Q6: Efforts to enroll youths as members of co-operatives:

To increase youth participation, their enrollment as regular members is necessary. Some co-operatives are making efforts adopting different measures to accommodate youths, as given in the table below.

Table No.-7: Efforts to enroll youths as members

Respondents	No.of responses	Youth camps to create awareness & enrollment	Co-operative education & training camps	Special camps for membership enrollment
Co-operatives	46	14(30.4%)	20(43.5%)	19(41.3%)

Special efforts are required to be made to enroll more youths as members.

Q7: Measures required for increasing youth participation**Table No.-8: Measures suggested for increasing participation**

Respondents	No.of responses	Creating awareness among co-operatives & youths	Introducing co-operation as a subject to syllabus of schools & colleges	Bring democratic management in co-operatives	Introducing novel programs by co-operatives
Co-operators	111	56(50.5%)	53(47.7%)	12(10.8%)	53(47.7%)

Q8: Ways to encourage /attract youths to be members:

Some specific steps, as given in the table, are required to be taken in this respect.

Table No.-9: Steps needed for youths enrolled as members

Respondents	No. of responses	Introducing co-operation as a subject to the syllabus of schools and colleges	Co-operative training & education	Giving wide publicity of good work of co-operatives
Co-operatives	46	25(54.3%)	15(32.6%)	23(50%)

Q9: Measures for spontaneous participation:

Additional steps, as indicated in the table, maybe taken at various levels to encourage spontaneous youth participation.

Table No.-10: Measures for spontaneous participation

Respondents	No. of responses	Introducing subject of co-operation to the syllabus of schools and colleges	Creating professional awareness	Giving leadership opportunities to youths
Administrative officers	43	24(55.8%)	22(51.2%)	24(55.8%)

Q10: Attracting youths to participate in the working

It is necessary to take initiatives, as indicated in the table below, to attract young people towards co-operatives.

Table No.-11: Attracting youths towards co-operatives

Respondents	No. of responses	Creation of awareness about co-operative movement	Making proper implementation of provision of open membership	Introducing new attractive activities	Running management in a democratic manner
Co-operators	111	83(74.8%)	25(13.5%)	41(36.9%)	24(21.6%)

Q11: Other options for increasing youth participation:

Presently, youths are Participation in some co-operatives as members, managing committee members & employees. Youths may also be encouraged to provide supportive services to co-operatives.

Such services may be relating Information Technology, conducting statutory audits of co-operatives & extending professional guidance to co-operatives on-demand as given in the table below.

Table No.-12: Options for youth participation

Respondents	No. of responses	IT services	Conduct of statutory audit	Professional guidance to co-operatives
Administrative officers	43	27(62.8%)	2(4.7%)	3(7.1%)

Q12: Difficulties being faced by co-operatives:

Since the time India adopted the pattern of free economy corporate/private sector started dominating the economy & co-operatives are struggling to retain their existence. Certain reasons behind such struggle areas are mentioned in the table below.

Table No.-13: Difficulties being faced by the co-operatives

Respondents	No. of responses	Management lacunae	Lack of training and education	Funds problem	Inadequate Participation of members in transactions
Co-operators	111	52(46.8%)	65(58.6%)	11(9.9%)	37(33.3%)

Q13: Change in leadership & increased youth participation helpful to remove difficulties:

In order to tackle the issue of difficulties being faced by the co-operatives, certain measures are required to be taken. These measures may include making suitable changes in the leadership of co-operatives, adopting advanced professional practices & allowing more youth participation, as given in the table below, which will be helpful to improve the working of co-operatives.

Table No.-14: Need of change in leadership & increasing youth participation by co-operatives

Respondents	No.of responses	Installation & use of advanced Information Technology	Speed up decision making	Create professional attitude	Making all-round development of co-operatives
Co-operators	111	53(47.7%)	29(26.1%)	56(50.5%) ³	31(27.9%)

Q14: Changes needed in structure & management of co-operatives & giving leadership opportunities to their young members:

To overcome existing problems of co-operatives, it is necessary to introduce changes in the constitution & management of co-operatives as given in the table below.

Table No.-15: Changes needed in structure and management of co-operatives

Respondents	No. of responses	Proper implementation of legal provision of open membership	Bringing members democratic control	Professional management	Economic participation of members
Co-operators	111	46(41.4%)	33(20.7%)	63(56.8%)	33(29.7%)

Q15: Reasons for poor participation of youths:

Certain reasons for the unsatisfactory participation of youths in co-operatives areas are mentioned in the table below.

Table No.-16: Reasons for poor participation of youths in co-operatives

Respondents	No.of responses	Misunderstanding about co-operative movement	Lack of awareness about co-operatives	No opportunities of leadership given	Dominance of particular people	No attractive activities of co-operatives	More Political interference
Co-operatives	46	18(39.1%)	20(43.5%)	16(34.8%)	-	-	-
Administrative officers	43	-	26(50.5%)	15(34.9%)	30(69.8%)	-	-
Cooperators	111	55(49.5%)	-	28(25.2%)	-	24(21.6%)	61(55%)

Q16: Enrollment of youths as members of co-operatives:

In order to ensure adequate participation of youths in co-operatives it is necessary, as indicated in the table below, that they should be enrolled as

regular members of the co-operatives.

Table No.-17: Need of enrolling youths as members

Respondents	No.of responses	Enrollment needed	Enrollment not needed	May be left it to youths to decide
Co-operatives	46	40(87%)	2(4.3%)	5(10.9%)

Q17. Non-members working as Pigmgi agents, co-ordinators & employees with the co-operatives:

Non-member youths may prefer to provide services, as indicated in the table below, to the co-operatives from outside.

Table No.-18: Services may be provided by non members youths

Respondents	No. of responses	May work as Pigmgi agents	May work as co-coordinators	May work as employees
Co-operatives	46	25(54.3%)	9(19.6%)	26(56.5%)

Q 18: Association of non-member youths with co-operatives:

Some youths may not be desirous to join as regular members but they may be allowed to provide certain services required by the co-operatives. The nature of such services can be in the form of consultancy etc., as given in the table below.

Table No.-19: Association of non-members youths & services to be provided by them to the co-operatives

Respondents	No.of responses	Technical, legal, professional consultants	Forming their novel co-operatives	Forming services provider groups, to support them financially
Co-operatives	46	13(28.3%)	18(39.1%)	23(50%)

Q19: Services to youths being extended by co-operatives

Co-operatives provide various services to their youth members, which relate to educational loans, loans for creating self-employment & loans for construction of their own houses etc.

If co-operatives start providing easy & attractive services to youths, as indicated in the table below, that may be helpful in attracting youths towards

co-operatives & will also be helpful to improve the level of participation of youths in working with co-operatives.

Table No.-20: Services by co-operatives being extended to youths

Respondents	No. of responses	Education loan	Loan for creating self-employment	Loan for construction of Gharkuls
Co-operatives	46	18(39.9%)	34(73.9%)	9(19.6%)

Q20: Benefits available to youth members from co-operatives:

Co-operatives generate employment & help to restrict the migration of local youths, as indicated in the table below, from rural areas to urban areas in search of jobs.

Table No.-21: Benefits which are being extended to youths by the co-operatives

Respondents	No. of responses	Employment generation	Restricting migration	Creating awareness
Co-operatives	46	29(63%)	16(34.8%)	16(34.8%)

Q21: Benefits to co-operatives by youth participation:

Co-operatives are experiencing certain hardships in their management issues. The use of advanced information technology & quick decision-making are important factors for them where youths can play a vital role. Increased youth participation will help co-operatives to make them able to compete with the private sector, to survive & to raise the level of business, to make efficient use of information technology & to speed up decision-making as indicated in the table below.

Table No.-22: Benefits to co-operatives by youth participation

Respondents	No. of responses	Ability to compete & survive	Increase transactions	Efficient use of Information Technology	Speed up decision making
Co-operators	111	62(55.9%)	20(18%)	55(49.5%)	36(32.4%)

Q22: Benefits to youths by participation:

By participation in co-operatives youths will be benefited in various ways as indicated in the table below.

Table No.23: Benefits to youths by participation

Respondents	No.of responses	Employment generation	Development in leadership qualities	Building decision making capacity	Developing professional management attitude
Co-operators	111	46(41.4%)	39(35.1%)	42(37.8%)	49(44.1%)

Q23: Benefits to non-member youths:

In order to create awareness about co-operatives among youths, co-operatives arrange various events which are useful to society in general as indicated in the table below.

Table No.-24: Benefits of co-operatives to non-member Youths

Respondents	No. of responses	Felicitation of merit students	Providing study material, books	Encouragement for taking further education
Co-operatives	46	22(47.8%)	17(37%)	21(45.7%)

Q24: Concept of a family member:

As an effective measure for increasing membership coverage, co-operatives may adopt the concept of family members, as given in the table below, so that all eligible members in a family, will be covered as members.

Table No.-25: Concept of family member whether to be adopted by co-operatives

Respondents	No.of responses	Is useful	Is not useful	No opinion can be given	May be adopted after understanding properly	May be adopted after considering experiences of other co-operatives	May be adopted if Govt. issues directives	May be adopted by amending bye-laws of co-operatives	Liberty may be given to co-operatives to decide at their level
Co-operatives	46	54%	10.9%	34.8%	-	-	-	-	-
Co-operators	111	39.6%	-	-	35.1%	9%	16.2%	-	-
Admin.officers	43	-	-	-	-	-	32.6%	37.2%	30.2%

Q25: New co-operatives to increase youth participation:

To attract the young generation towards co-operatives, there has to be structural & management changes in co-operatives.

Co-operatives need to keep adopting novel practices. Some new relevant areas, as indicated in the table below, are available where new co-operatives

can be formed & run with the exclusive participation of youths.

Table No.-26: Which new co-operatives can be formed for youths

Respondents	No. of responses	New cooperatives about IT	New agri. producers, processing, mktg co-operatives	New service provider co-operatives	New solar energy related co-operatives	Consumer services	Co-operative training and education
Co-operatives	46	22(47.8%)	21(45.7%)	20(43.5%)	10(21.7%)	-	-
Admin. officers	43	26(60.5%)	30(69.8%)	-	18(41.9%)	-	-
Co-operators	111	54(48.6%)	60(54.1%)	-	-	99(44.1%)	47(42.3%)

Q26: How youths can contribute without becoming members of co-operatives?

Young people desirous to remain out of the fold of co-operatives may remain associated with co-operatives & may provide services, as indicated below, to the co-operatives.

Table No.-27: Youth contribute to without becoming members

Respondents	No. of responses	IT Services	Legal advisor	Project consultant	Accepting employment in co-operatives
Co-operators	111	83(74.8%)	38(44.2%)	34(30.6%)	26(23.4%)

Observations/Findings:

Following observations/findings are drawn.

1. Co-operatives are facing various difficulties to retain their existence due to various reasons.
2. Some changes in structure, management & leadership in co-operatives are required.
3. Youths can provide good leadership.
4. Presently youth participation is inadequate due to a lack of awareness, opportunities & attractive activities.
5. Increase in youth participation will be beneficial to co-operatives & youths.
6. Present efforts of co-operatives to increase youth participation by enrollment of new members etc. are not sufficient.
7. New measures required to increase youth participation are encouragement, attractive activities, spontaneous participation, non-members association, providing attractive & beneficial services to

youths, Training, education, awareness camps, co-operation as a subject to be a part of the syllabus in schools and colleges & Adoption of the concept of a family member:-

8. During Covid-19 co-operatives, youths-members/non-members played a very important role.
9. Post Covid-19 -Co-operatives have scope to provide employment / services to those who lost their jobs, thereby co-operatives can attract/accommodate youths in the co-operative fold.
10. There is a wide scope for the formation of new Co-operatives involving youths
11. Co-operatives can encourage non-members youths also to provide various paid services to the co-operatives.

Recommendations:

1. Some changes in structure, management & leadership in co-operatives may be introduced.
2. Youths be encouraged to be active members & participate in working of co-operatives & provide leadership.
3. Leadership opportunities may be preferably offered to youths.
4. IT savvy youths may be offered attractive opportunities.
5. Atmosphere in co-operatives is so created that youths get attracted towards co-operatives.
6. Non-members youths may also be given opportunities, as a matter of employment generation, to provide various services to co-operatives & to get themselves associated with the co-operatives.
7. Services given by the co-operatives should be so attractive & beneficial to the youths that members/non-members youth may start preferring services of co-operatives.
8. Co-operatives should go for adoption of concept of family member so that enrollment of youths as members become automatic.
9. Co-operatives should proactively provide employment /other opportunities to those youths who lost their jobs during Covid-19., thereby attracting/accommodating youths.
10. In new areas like IT, production, processing, services, solar energy & tourism youths may be encouraged to form new co-operatives.
11. Co-operatives should allow youths to provide various services like IT,

legal advisor, project preparation, co-coordinators, bank correspondents, services providers, etc. 44/)

Conclusion:

Presently co-operatives are struggling to retain their existence. To overcome the problem youths can play important roles. Presently participation of youths in co-operatives is not satisfactory, because of a number of reasons. It is necessary that deliberate steps to increase youth participation in co-operatives are required to be taken. Co-operatives in new areas need to be formed. Co-operatives to adopt information technology & make its efficient use with the help of youths.

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- 1) Cooperative Movement in Maharashtra at a Glance-2020.
- 2) Sahakari Maharashtra, A Monthly Journal(Marathi).

Good Governance in Indian Cooperatives with modern management concepts

Dr Sanjeeb Patjoshi*

Abstract:

Indian cooperatives, in credit and non credit sectors, are very vibrant and prosperous in many areas such as dairy, bank, sugar, housing, marketing, handloom textile, handicraft, fertilizer etc. With large about 130 crores populations of the country, there are also very large numbers of cooperatives more than 8.5 lakhs with 29 crores members, existing and spread from villages to urban big cities with yeoman's service to society, community and member individuals etc. Thus cooperatives have substantial contribution to annual GDP, employment generation or creation, devolution of income and wealth to poor, infrastructure development, agriculture etc. With legislations of Cooperative Acts, byelaws etc, basic structure and foundation of cooperatives are strong, but gradually there is some sort saturation with and deviation from cooperative sound seven principles- Open and Voluntary Membership, Democratic Member Control, Members' Economic Participation, Autonomy and Independence, Education, Training, and Information, Cooperation Among Cooperatives, Concern for Community. Unwelcome and undesirable phenomena of elite capture, moral hazard, principal agent problem, political pollution, false positive and false negative, inefficiency, ineffectiveness, rent seeking corruption, leakages etc have crept in deep deleterious way to self inflict damage and harm to cooperatives credibility, members etc. Hence transition and restoration from astray to correct and ethical motto, mission, vision, objective in cooperative sectors are inevitable. Modern management concepts cited above, cooperative model from one member one vote to producer company and newer technology techniques such as digital transaction, anonymous processing, less human interface, machine learning, artificial intelligence, LatLong based geo tagging, strong cyber security, online accounting and auditing etc need to be applied for cascading geometric progression growth in Indian cooperatives.

* (IPS PhD ADG), Joint Secretary to Government of India, Ministry of Panchayati Raj, New Delhi, Former Director VAMNICOM & CICTAB

Introduction:

Right from Rochdale Society of Equitable Pioneers, founded in year 1844, an early consumer cooperative forming the basis for the modern cooperative movement and the most famous for designing the Rochdale Principles of cooperation providing the foundation on which cooperatives around the world operate presently within cooperative economics, Indian cooperatives have also traversed long progress through ups and downs with its origin in the last quarter of 19th Century in attempts to provide relief to the farmers from the clutches of money lenders. The cooperative movement was introduced in India as a State policy in Constitution and owes its inauguration to the enactment of the Cooperative Societies Act, 1904, giving the real impetus to the movement. The first urban cooperative credit society was registered in Canjeevaram or Kanjivaram in the erstwhile Madras province in October, 1904 followed by many cooperative agricultural credit societies and cooperative banks being established in many districts on the lines which existed in Germany and Italy. Sir Frederic Nicholson is hailed as the pioneer of the cooperative movement in India. To overcome the weaknesses of the year 1904 Act, the new Cooperative Societies Act was passed in year 1912. Then in year 1942, Government of British India enacted the Multi-Unit Cooperative Societies Act to cover Cooperative Societies with membership from more than one province..After the rapid strides of the cooperative movement, Cooperative Planning Committee was appointed by the British Government of India in year 1945. In sovereign and independent India, the new Cooperative Act was enacted in year 1960. India's first Prime Minister Pandit Jawaharlal Nehru and then succeeding Prime Minister Lal Bahadur Sastri had strong faith in the cooperative movement. Robert Owen, a Welshman in cotton trade in 18th century is considered as the father of the cooperative movement in the world who had believed in putting his workers in a good environment with access to education for themselves and their children. Cooperative sound seven principles- Open and Voluntary Membership, Democratic Member Control, Members' Economic Participation, Autonomy and Independence, Education, Training, and Information, Cooperation Among Cooperatives, Concern for Community are in fact seven musical notes or 'svaras' in melody In traditional Indian music.

Indian perspective :

With India's large population of around 130 crores in which adults in both genders above age 18 years constitute about two third i.e 80 crores , there is inherent economy of scale for cooperatives by way of more members,

subscription share capital, better team efforts as wisely said by Greek philosopher Socrates, “ Team is wiser than the wisest of its members”. Many mammoth cooperatives such dairy milk of AMUL and federations in some states, banks of Cosmos, Saraswat, sugar mills in Maharastra, fertilizer of IFFCO, KRIBHCO etc have proved and demonstrated capacity and capabilities in service of nation, people and its shareholders with flying colors for many decades. Around 8.5 lakhs Indian cooperatives with more than 29 crores members have credit disbursement of Rs 1.5 lakh crores annually, give direct employment around 14% of work force, cover 98% of rural networks.

Rough Roads and repairing potholes in cooperatives :

During recent nationwide demonetization of Rs 1000 and Rs 500 currency notes in year 2016, Reserve Bank of India had substantial misgiving about cooperative banks to be fulcrum of black money in society, hence initially did not authorize to accept demonetized returned currency notes from public. Further RBI did not also permit cooperative banks to deposit their money in form of demonetized currencies in regular banks for some period. Cooperatives thus landed on rough road.

Unwelcome and undesirable phenomena of elite capture, moral hazard, principal agent problem, political pollution, false positive and false negative, inefficiency, ineffectiveness, rent seeking corruption, leakages etc have crept in deep deleterious way to self inflict damage and harm to cooperatives credibility, members etc. Elite capture by few rich and influential by politics and muscle by hook and crook in arena of cooperatives crowd out poor, naïve, apolitical mass members. With serious conflict of interest in cooperative management, moral hazard becomes double whammy. Rent seeking corruption cripples and drains out any cooperative overnight.

Modern management concepts cited above, cooperative model from one member one vote to producer company and newer technology techniques such as digital transaction, anonymous processing, less human interface, machine learning, artificial intelligence, Lat Long based geo tagging, strong cyber security, online accounting and auditing etc need to be applied for cascading geometric progression growth in Indian cooperatives.

Recent Parliament enacted legislation shifted regulation of cooperative banks to RBI from cooperative department to remedy inefficiency in latter. This is one of major repair of pothole in road, existing for long.

To eliminate conflict of interest, some identified top positions in cooperatives should be designated as office of profit so as to be ineligible while contesting elections of Member of Parliament, member of legislative assembly and council. Hence before venturing into such election arena of such constitutional posts, candidates need to resign from such top cooperatives posts. In cooperatives also, there has to be tenure limit, may be two terms so that older generation yield to younger ones for fresh and newer talent to flow in with aim for betterment of cooperatives.

Digital audit on line basis is definite solution for many long pending financial unhealthy sicknesses in cooperatives.

Cooperatives, being symbiotic, have potential with good governance based on modern management concepts for leap frog growth for prosperity of people, shareholders.

Views are my own

References- Online various websites

PART 3





**Indian Society for Studies in Cooperation (ISSC)
VAMNICOM, Campus, University Road, Pune 411 007**

(Tel.No.020-25701000/205, Fax No.020-25537726 Web Site: www.isscpune.in)

Brief Profile

Indian Society for Studies in Cooperation was registered in the year 1979 primarily to promote Research and Studies in Cooperation amongst the Universities. It has cooperative Institutions and individuals as members. Presently, its membership is more than 500 comprising of Institutional Donor Members, Individual Donor members and Individual Life Members.

Society organizes Annual National Conventions every year in different parts of the country focusing on the important issues related to cooperation and allied sectors. At each of these Conventions, papers are invited on subjects selected for the discussions. Eminent Cooperators, Academicians, and Key administrators are invited as Guest of Honour and requested to deliver keynote addresses. These Conventions have been addressed by eminent persons like Dr. Manmohan Singh, Dr. V.K. R.V. Rao, Dr. B. Venkatappiah, Dr. V. Kurien, Dr. V.M. Dandekar, Dr. Nilkantha Rath and Padmabhushan Balasaheb Vikhe Patil others.

Objectives:

The studies, research, and teaching of:

- a) Cooperative Principles and Philosophy.
- b) Cooperative Policy development in India and abroad.
- c) Economic, Social, Political, & Administrative aspects of cooperation.
- d) Management of cooperative enterprises.

Activities:

- i) Undertaking, organizing, and co-coordinating research in fundamental and applied aspects of cooperation.
- ii) Organizing or collaborating in the organization of conferences, seminars, workshops, symposia, colloquia, and other educational programs at the State, Regional, National, and International levels.
- iii) Publishing journals, reports, papers, books, collection of readings, etc.
- iv) Instituting fellowships, scholarships, and prizes.

Membership:

The membership is open to both individuals and institutions interested in the study and research in co-operation. Individual members could be teachers, researchers, executives in cooperative institutions, officers in cooperative departments, etc.

Institutional membership is open to universities, colleges, research institutions, training organizations and cooperatives from the national to the primary levels. Other institutions and individuals interested in development of cooperation could also be the members.

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1.	Institutional Donor Member	Rs.20,000/-
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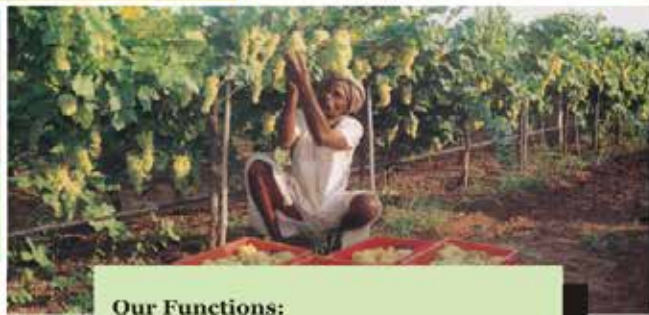
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