



INDIAN SOCIETY FOR STUDIES IN COOPERATION (ISSC), PUNE

39th Annual National Research Conference, Gadag (3rd & 4th Jan. 2025)

COOPERATIVE BUSINESS MODEL FOR RESILIENCE AND SUSTAINABILITY





Cooperative Business Model for Resilience and Sustainability

**(Proceedings and Papers of
39th Annual National Research Conference)**



Indian Society for Studies in Cooperation

VAMNICOM , Campus, University Road, Pune 411 007

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Cooperative Business Model for Resilience and Sustainability

(Proceedings and Papers of 39th Annual National Research Conference)

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**39TH ANNUAL NATIONAL
RESEARCH CONFERENCE
GADAG**

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Pune 411 007

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The views expressed in papers are of the Authors and not necessarily of ISSC, Pune

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Preface

I am happy to note that Indian Society for Studies in Cooperation (ISSC) completed its 39th Annual National Research Conference in collaboration with Karnataka State Souharda Federal Cooperative Ltd., Bengaluru and Karnataka State Rural Development and Panchayat Raj University (KSRDPRU), Gadag. Vaikunth Mehta National Institute of Cooperative Management, Pune was also associated with Conference.

The theme of the Conference was **“Cooperative Business Model for Resilience and Sustainability”**. This Conference aligned with the United Nations General Assembly's declaration of 2025 as the International Year of Cooperatives (IYC2025). Under the theme "Cooperatives Build a Better World," this conference explored how cooperatives can be pivotal in fostering resilience, sustainability, and equitable growth, contributing to a global movement towards a more inclusive and sustainable future. The presentations, discussions, and workshops, explored the cooperative model's potential to drive community-driven solutions that address the complex challenges of our times.

We would like to reiterate that we have lots of responsibilities after this conference, as we have to plan to celebrate the International Year of Cooperatives. We feel it is our duty to prepare a road map for the entire year, involving everyone and all the sectors to make it more vibrant. As India is having more young population, it is very much essential to involve youth and women in the cooperatives.

We thank, Prof. Yashavantha Dongre, Vice-Chancellor, Chanakya University, Bengaluru for delivering Key Note address and Dr. Hema Yadav, Director, VAMNICOM, Pune for delivering the Valedictory Address. We congratulate

the paper presenters and delegates for participating in the Technical Sessions by Online and Offline mode. We also thank chairmen of various Technical Sessions for moderating.

We are thankful to Karnataka State Rural Development and Panchayat Raj University (KSRDPRU), Gadag; Karnataka State Souharda Federal Cooperative Ltd., Bengaluru for their hospitality and support to make this conference successful. We are also thankful to all the delegates who came from such a long distance and participated in the conference. I am sure that without untiring efforts of Shri 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, Bengaluru; Gujarat State Coop. Union, Ahmedabad; Gujarat State Coop Credit Societies Federation Ltd., Ahmedabad; the Aslali Sewa Sahkari Mandli Limited, Aslali, Ahmedabad (Gujarat); Cosmos Cooperative Bank Ltd., Pune; Pune Peoples Cooperative Bank Ltd., Pune.

I would also like to thank the Office Bearers of ISSC for taking 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
39th Annual National Research Conference, Gadag
(3rd-4th January 2025)

PROGRAM

Day-I

3rd January 2025

09.15-10.15AM

Registration

10.30-12.00AM

Inaugural Function

Welcome Address

Prof. (Dr.) Suresh Nadagoudar

Vice Chancellor (Acting) & Registrar
KSRDPR University, Gadag

About ISSC & Conference

Dr. (Prof.) Anil Karanjkar

Hon. Secretary, ISSC

Inauguration

At the hands of all dignitaries

Inaugural Address

Shri H.K.Patil

Minister for Law and Parliamentary Affairs
District Minister for Gadag District
Government of Karnataka

Guest of Honor

Shri K. Jagadish

Deputy General Manager
NABARD, Bengaluru

Key Note Speaker

Prof. Yashavantha Dongre

Vice-Chancellor
Chanakya University, Bengaluru

In Presence of

Shri G.Nanjana Gowda

President
KSSFCL, Bengaluru

Presided by
Shri G. H. Amin
Chairman, ISSC and
Gujarat State Coop. Union, Ahmadabad

Vote of Thanks
Dr. Abdul Aziz Mulla
Asst. Director / Faculty
Cent. for Training & Publication
KSRDPRU, Gadag

12.00-01.30PM	Plenary Session I & II (Research paper presentation and discussion) (Parallel Sessions)
02.00-03.00PM	Plenary Session I & II (Research paper presentation and discussion) (Parallel Sessions)
03.15-04.45PM	Plenary Session III & IV (Research paper presentation and discussion)
05.00PM	Annual General Meeting of ISSC

Day-II	4th January 2025
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09.30-11.00AM	Plenary Session V & VI (Research paper presentation and discussion) (Parallel Sessions)
11.15-01.30PM	Plenary Session VII & VIII (Research paper presentation and discussion)

Report of Conference
Dr. Abhaykumar Gasti
Programme Coordinator
KSRDPRU, Gadag

02.00-03.00PM	Valedictory Function Valedictory address Dr. Hema Yadav Director VAMNICOM, Pune
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Presided by
Shri A R Prasanna Kumar
Vice President
KSSFCL, Bangalore

Vote of Thanks
Prof. (Dr.) Anil Karanjkar
Hon. Secretary, ISSC

Indian Society for Studies in Cooperation

C/o. VAMNICOM, University Road,

Pune 411 007

Proceedings of 39th Annual National Research Conference, Gadag, Karnataka

(January 3rd -4th, 2025)

Indian Society for Studies in Cooperation (ISSC) completed its 39th Annual National Research Conference in collaboration with Karnataka State Souharda Federal Cooperative Ltd., Bengaluru and Karnataka State Rural Development and Panchayat Raj University (KSRDPRU), Gadag in association with Vaikunth Mehta National Institute of Cooperative Management, Pune at Auditorium of the University on 3rd and 4th January 2025. The theme of Annual National Research Conference was “Cooperative Business Model for Resilience and Sustainability”. Society received 61 research papers for the Conference. These papers were presented online and offline mode. The details and overall impact of the entire event are described below:

DAY – 1

3rd January 2025

Inaugural Function:

The Inaugural function began with watering of Plant by Dr. H.K. Patil, Hon'ble Minister for Law, Justice, Human Rights, Parliamentary Affairs, Legislation and Tourism, Government of Karnataka, District In-charge Minister, Gadag; Shri K. Jagadeesh, Deputy General Manager, NABARD, Bengaluru; Prof. Yashavantha Dongre, Vice-Chancellor, Chanakya University, Bengaluru; Prof. (Dr.) Suresh Nadagoudar, Vice Chancellor (Acting) & Registrar, KSRDPR University, Gadag; Shri Prasannakumar, Vice-President, KSSFCL, Bengaluru; Shri G.H. Amin, Chairman, ISSC, Pune and Gujarat State Coop. Union, Ahmadabad and Prof (Dr.) Anil Karanjkar, Hon. Secretary, ISSC; Dr. Abdul Aziz Mulla, Asst. Director/Faculty. KSRD&PRU were present on dais at this occasion. The Inaugural function was attended by participants comprising of Cooperators, Members of the Society, Academicians, Officials, Faculty, Staff and Students of (KSRDPRU), Gadag.

Dr. 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 “Cooperative Business Model for Resilience and Sustainability” in today’s scenario. He described that ISSC invites papers from budding researchers from all over India. In this process first we select Abstracts and after accepting the abstract we request researchers to present their paper.

Shri H.K.Patil, Hon'ble Minister for Law, Justice, Human Rights, Government of Karnataka, District In-charge Minister, Gadag, in his address expressed that in 1905, Siddanagouda S. Patil sowed the seeds of cooperation by establishing the first Agricultural Credit Co-operative Society in Kanaginahal of Gadag district. Subsequently, co-operative societies were established in Hirehandigo and Hulkoti in the district. The celebration of the International Cooperative Year being organized in Gadag district is commendable. Since the tie of the Mumbai province, cooperative societies have been continuously engaged in activities, providing financial assistance to people. India's cooperative sector is very strong, comprising 8.85lakh societies and 29 crore members. These organizations operate as engine of growth in agriculture, banking and beyond.

Shri K. Jagadeesh, Deputy General Manager, NABARD, Bengaluru said that NABARD has always emerged as an apex body to build up several success stories. It has been playing a catalytic role through cooperatives and self help groups. With different roles of NABARD, the present conference has taken an initiative to explore the role of cooperatives and SDGs.

Prof. Yashavantha Dongre, Vice-Chancellor, Chanakya University, Bengaluru delivered a keynote address in his address he said that The 39th Annual National Research Conference on Cooperative Business Models for Resilience and Sustainability will align with the United Nations General Assembly's declaration of 2025 as the International Year of Cooperatives (IYC2025). Under the theme "Cooperatives Build a Better World", this conference will explore how cooperatives can be pivotal in fostering resilience, sustainability and equitable contribution and workshops.

Moreover, cooperatives align with the goals of the "Aatma Nibhar Bharat" initiative by promoting local production, fostering entrepreneurship and enhancing economic resilience, particularly for marginalized groups. Despite their significant contributions, cooperatives are often overlooked in global

discussions on sustainable development

Prof. Suresh Nadagoudar, Vice Chancellor, KSRDPR University, Gadag express his gratitude to ISSC for holding 39th Research Conference. He also appreciates the organizers for choosing a relevant current topic for the ISSC, 39th Annual Research Conference on “Cooperative Business Model for Resilience and Sustainability”.

Shri G.H. Amin, Chairman, ISSC, Pune and Gujarat State Coop. Union, Ahmadabad delivered the presidential address. During his address he said, the Cooperative Movement in India, rooted in the ancient philosophy of 'Vasudhaiva Kutumbakam' (the world is one family), has undergone significant transformation since its inception. Initially driven by voluntary efforts, the movement gained legal recognition with the enactment of the Cooperative Credit Societies Act in 1904. Following independence, cooperatives were integrated into national development strategies, with a focus on collaboration with village panchayats to promote rural development and financial inclusion.

I would like to reiterate that we have lots of responsibilities after this conference, as we have to plan to celebrate the International Year of Cooperatives. I feel it is our duty to prepare a road map for the entire year, involving everyone and all the sectors to make it more vibrant. As India is having more young population, it is very much essential to involve youth and women in the cooperatives.

As a New Year Resolution, we all will work towards the development of cooperatives and equip cooperatives to contribute substantially to the India's GDP and make India as one of the largest Economy in the World.

Dr. Abdul Aziz Mulla, Asst. Director/Faculty. KSRDPR proposed the vote of thanks at the end of the inaugural session.

Technical Session - I

(3rd January 2025)

(Time 02.30pm to 04-00pm)

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 Shri K. Jagadeesh, DGM, NABARD,

Bengaluru, Rapporteur: Ms. Meelamma K., Programme Coordinator, KSRDPRU, Gadag. Technical Support: Dr. Amit Vikram and Abhishek V.J.

The following papers were presented during technical session I.

1. An application of proper Approaches & Practices to gain financial Resilience & Sustainable Development by Cooperatives. (A case study of the Wardha DCCBank Ltd., Wardha, Maharashtra State, India.) by S. B. Patil Member of ISSC.
2. Performance of Primary Agricultural Credit Societies based on financial ratios in Udupi District of Karnataka by Dr. Jyothi D. Cooperative Devp. Officer Bantwala Taluka DK, District Mangalor.
3. Souharda Cooperative Education and Capacity Building for Future Challenges by Shri Mahantappa S.M., Officer, KSSFCL, Bengaluru.
4. Cooperatives and the Global Sustainable Development Goals (SDGs) by Sharanagouda G Patil, Managing Director, Karnataka State Souharda Federal Cooperative Ltd., Bengaluru.
5. The Role of Co-operative in Sustainable Farming by Pawar Ajay and Vinayak Solse, Student SPPU, Pune.
6. Popularising Success Stories among Youth in India during IYC : The Role of Media with Special Reference to Story Telling by Shri Sanjay Verma, Advisor, NCUI, New Delhi.

Technical Session - II

(3rd January 2025)

(Time 04.00pm to 06-00pm)

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 Shri S.B. Patil, Member of ISSC; Rapporteur: Shri M.B. Channappagoudar, Faculty, Master of Business Administration, KSRDPRU, Gadag. Technical Support: Dr. Amit Vikram and Abhishek V.J.

The following papers were presented during technical session I.

1. The Cluster and Six Sigma Approach for Cooperative Sugar Factories by

Prof. (Dr.) A.M.Gurav, HOD, Shivaji University, Kolhapur.

2. Strategies for building a viable and sustainable business model for labour co-operatives – A case study on the start-up approach of the Mattathur Labour Contract Co-operative Society Ltd. No.R.1264 by Sri. BABU.V.N ,Director (Rtd), ICM, Kannur & Prasanth, Secretary, MLCCS, Thrissur
3. Youth and Women Cooperatives: Engaging the Next Generation by Shivkumar Biradar Officer, KSSFCL Bengaluru.
4. Youth and Women Cooperatives: Engaging the Next Generation by Gangaram Saggu Kolapte, Officer, KSSFCL, Bengaluru.
5. Rebuilding and Founding the Health Cooperatives - An Empirical Study by Dr. R.Velu Raj, HOD, Tagore Govt. Arts and Science College, Puducherry.
6. Sustainable Business Model to the Farmers: Agricultural Producers Cooperative Marketing Societies (APCMSs) – A Study from Tamil Nadu by Dr. M. Ragubalan, Dr.S.V.Akilandeewari, and Dr.C.Pitchai, of GRI, Tami Nadu.

DAY – 2

Technical Session - III

(4th January 2025)

(Time 09.30pm to 12-00pm)

This 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 Shri Prasanna Kumar, KSSFCL., Bengaluru. Rapporteur: Dr. Santosh Kumar P.K., Master of Public Administration, KSRDPRU, Gadag. Technical Support: Dr. Amit Vikram and Abhishek V.J.

1. Cooperative Education and Capacity Building in India: Role of NCCT to Prepare for Future Challenges by Mrs. Vijayshri Bhagwati, HOD Center for Gender Studies, VAMNICOM, Pune Ms. Sonal Kadam, Research Officer, VAMNICOM and Mr. Praneet Mugle, 1st Year PGDM ABM Student, VAMNICOM, Pune.
2. Atma Nirbhar Bharat and Cooperative Institutions: Building Self-Reliance through Local Enterprises by Ms. Savitha N. E, Jr. Officer,

KSSFCL, Bengaluru.

3. Ministry of Cooperation, Government of India New Initiatives and Its Impact by Divya T, Junior Officer, KSSFCL, Bengaluru.
4. Initiatives for the Development of Cooperatives in Tamil Nadu: Digitalization and Diversification towards Resilience by Dr. S.V. Akilandeewari, Asst. Professor and Head, Dept. of Business Administration, Athoor Coop. Arts and Science College, Tamil Nadu and Dr.C.Pitchai, Professor, GRI, Tamil Nadu
5. Digital Eco System for Public Utility Services-A study with reference to Primary Agriculture Cooperative Societies (PACS) as Common Service Centers. by Dr. B. Kishor and Dr. S. Dharmaraj, Assistant Professors, VAMNICOM, Pune.
6. Decreasing Milk Collection of Cooperative Milk Institutions in Kolhapur District Measures Taken by Shri Shrikant Chougule, Certified Auditor, Kolhapur.

Online Technical Session - IV

(4th January 2025)

(Time 11.15pm to 01-30pm)

This 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 Dr. S.V.Akilandeewari, HOD, Athoor Coop. Arts and Science College, Tamil Nadu Rapporteur: Shri Praveen Ankalakoti, Faculty, Master of Public Administration, KSRDPRU, Gadag. Technical Support: Dr. Amit Vikram and Abhishek V. J.

1. A Study on Role of Manipur State Cooperative Bank Limited on Financial Sustainability of PACS in Manipur by Semthilanu Darengjir Aimol, Student of M.com,GRI Khoichung Rangamlan Aimol, Dy Director & Director (I/C) ICM, Imphal, and Prof. Dr. S. Manivel, Professor, GRI, Tamil Nadu.
2. A Study on the Social Equity and Inclusive Economic Growth of Handloom Weavers' Cooperatives in Chinnalapatti Cluster, Dindigul District by R. Gobika Shri, Student GRI, Tamil Nadu, and Dr. B.

Tamilmani, Professor, GRI, Tamil Nadu.

3. The Role of the Giddalur Primary Cooperative Society in Achieving Sustainable Development Goals by Chittem Prasanna Kumar Kannan P, Research Scholar, GRI, Tamil Nadu and Dr. K. Ravichandran, Senior Professor, GRI, Tamil Nadu.
4. Governance Practices of Primary Agriculture Cooperative Credit Society by Dr K. Ravichandran Senior Professor, and Boopathy.M., Dharshini.K, Research Scholars, GRI, Tamil Nadu.
5. Building Self-Reliance through Cooperatives: A Case of Thadicombu PACCS in Dindigul District by T. Deepa, Student, GRI, Tamil Nadu, and Dr. B. Tamilmani, Professor, GRI, Tamil Nadu.
6. Building Self-Reliance through Cooperatives: A study on Muthalagupatti Urban Cooperative Society in Dindigul District by Caroline Student, GRI, Tamil Nadu and Dr. B. Tamilmani Senior Professor, Department of Cooperation, and Dean of School of Management Studies, GRI, Tamil Nadu.
7. The Pattiveeranpatti Primary Agricultural Cooperative Society Ltd: A Business model for transformation by B. Kayalvizhi, Student,GRI, Tamil Nadu and Dr.C.Pitchai, Professor, GRI, Tamil Nadu.
8. Delivering Digital Service through Cooperatives: A Case Study on the Panchampatti PACCS as Common Service Center by K. Nithishkumar, Student, GRI, Tamil Nadu and Dr. B. Tamilmani Senior Professor, GRI, Tamil Nadu.
9. Business Strategies for the Sustainability of Gandhiji Handloom Weavers Cooperative Production and Sales Society by V. Gowri Shankar, Student, GRI, Tamil Nadu and Dr. B. Tamilmani Senior Professor, GRI, Tamil Nadu.
10. Digitalization and Cooperatives: Enhancing Member Engagement and Transparency by Rajat Chorghade, Dheeraj Durga, Students of VAMNICOM, Pune.
11. Resilience and Sustainable of A.1423 K. Pudukottai PACCS Limited by Shri M.Maheshwara, Student GRI, Tamil Nadu and Dr. S. Manivel, Senior Professor, Department of Cooperation, GRI, Tamil Nadu.
12. A study on Cooperatives and Social Equality: Advancing Inclusive

Economic Growth in Panchampatti PACCS Limited by Mr. K. Vishva, Student, GRI, Tamil Nadu and Dr. B. Baskar, Assistant Professor, GRI, Tamil Nadu.

13. A study on the Performance of Natham Kovilpatti Milk Producers Cooperative Society Ltd., by P. Keerthana, Student, GRI,, Tamil Nadu and Dr. C. Pitchai, Professor, GRI, Tamil Nadu.

Valedictory Function

The Valedictory Function started at 2.00 PM on 4th January 2025. The Valedictory address was given by Dr. Hema Yadav, Director, Vaikunth Mehta National Institute of Cooperative Management, Pune in presence of Prof. (Dr.) Suresh Nadagoudar, Vice Chancellor (Acting) & Registrar, KSRDPR University, Gadag; Dr. Ashok Dalwai, (IAS Rtd.), Shri G. Nanjangouda, President KSSFCL, Bengaluru; Shri A.R.Prasanna Kumar Vice-President, KSSFCL, Bengaluru; Shri Sharangowda Patil, MD, KSSFCL, Bengaluru and Dr. Anil Karanjkar, Secretary, ISSC, Pune.

Dr. Ashok Dalwai, elaborated that Indian Cooperative Movement is the largest in the world. The history of cooperatives in India is more than a hundred years old. 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.

Dr. Hema Yadav, Director, VAMNICOM, Pune delivered the valedictory address in her speech she highlighting the pivotal role of cooperatives in fostering sustainable development and empowering communities. She emphasized the importance of governance, management and business outlook in cooperatives which can be enhanced through capacity building and deriving the cooperative into successful enterprises. Cooperatives have exhibited its inevitability at different points of time and contributed to the success of India's development planning with respect to achieving poverty alleviation, food and employment generation.

Vote of thanks was extended by Shri Sharangowda Patil, Managing Director, Karnataka State Souharda Federal Cooperatives Ltd, he thanked Vice Chancellor, KSRDPR University, Gadag; Dr. Hema Yadav, Director

VAMNICOM; Dr. Ashok Dalwai, (IAS rtd); Shri G.H.Amin, Chairman ISSC, Delegates, Paper presenters and Member of the Governing Council and the entire team of ISSC; Members of Karnataka State Souharda Federal Cooperatives Ltd, for successfully completed 39th Annual National Research Conference. On behalf of ISSC, he expressed gratitude to all sponsors. He especially thanked all the faculty members, staff and volunteers who made it possible to manage the entire event. He expressed heartfelt gratitude to all the dignitaries for sparing valuable time to address the delegates. He said that the Conference would not have succeeded if delegates from all over India would have not come.

PART 2



01

Financial performance analysis of MSCB and PACS in Manipur: A comparative study with all-india trends a study on role of manipur state Cooperative Bank Limited on financial sustainability of PACS in Manipur

**Semthilanu Darengjir Aimol*,
Khoichung Rangamlian Aimol**, Prof. Dr. S. Manivel*****

Abstract:

This study explores the pivotal role of the Manipur State Cooperative Bank Limited (MSCB) in promoting the financial sustainability of Primary Agricultural Credit Societies (PACS) in Manipur. With agriculture being a cornerstone of the state's economy, the effectiveness of PACS in providing credit and support to farmers is crucial. This research examines the financial interlinkages between MSCB and PACS, highlighting how MSCB's services—such as credit provision, capacity building, and risk management—enhance the operational efficiency of PACS.

This study is empirical in nature. This study is based on both secondary and primary data collected from the Manipur State Cooperative Banks. This includes financial (quantitative) data that explores the financial sustainability. It further assesses MSCB's initiatives aimed at strengthening PACS, ultimately contributing to improved financial stability and sustainability. The findings underscore the importance of cooperative banking in empowering rural economies and policy recommendations for enhancing the collaborative framework between MSCB and PACS to ensure a more resilient agricultural sector in Manipur.

* Student of M.com, School of Management, GRI, Tamil Nadu

** Dy Director & Director (I/C) ICM, Imphal,

*** Professor & Dean, Student's Welfare, GRI, Tamil Nadu

Period of Study:

This study covers a period of over 5 years.

Keywords:

Manipur State Cooperative Bank Limited (MSCB), PACS, Financial stability, Rural economy.

1. Introduction:

The cooperative banking being one of the oldest banking systems in India provides short term medium term credit for agriculture to millions of farmers across the country. It remains as a vital constituent of rural financial system due to their pivotal role in Indian agriculture not only by providing agriculture credit but also by number of other agriculture inputs and services accessible to farmers. Over a period of time, cooperatives have proved their mettle by being instrumental in implementing various government initiatives for agrarian community. In the changing banking scenario of the country, especially after the aggressive rural outreach by public sector banks, introduction of new players such as Small Finance Banks and Payment Banks for instance, advent of online banking and other technological advancements, Cooperative Banks are facing tough challenge to maintain their relevance.

A strong and vibrant cooperative credit structure is important to accelerate development and growth of the people in the rural area in general and the farmers in particular by ensuring access to easy, timely and affordable credit and other financial services of banks. The huge network of Primary Agriculture Cooperative Societies (PACS) also known as Gram Panchayat Level Multi-Purpose Cooperative Societies (GPLMPCS) operating in the valley districts of Manipur/ Large Area Multi-Purpose Societies (LAMPS in Manipur) and take financial services to their members in hassle free manner. However, the Multi-Purpose Cooperative Societies in the State of Manipur remain weak due to, inter alia, difficult terrain and poor communication, dispersed habitation, poor infrastructure, socioeconomic backwardness and, above all, lack of awareness and orientation. An empowered and strong primary structure can also facilitate development and growth of the upper structure while inter-structure coordination, cooperation and support is instrumental in creating a sound and efficient credit delivery mechanism and can ensure inclusive growth. In view of weak primary structure and their credit off-take remaining very low, the apex structure in the state, however,

remained urban-focused notwithstanding the fact that growth of the primary structure is the core strength of the apex structure. The apex structure empowered with blanket permission by RBI to open branches in its area of operation to handhold, support and facilitate the lower structure could not meet the demand for opening branches in the rural areas due to its weak resources, poor manpower and non-vibrant lower structure. Creation of awareness, orientation, guidance, handholding, capacity-building interventions, leadership development, business ethic, business development, etc. is essential and indispensable to strengthen the cooperative credit structure in the State. Cooperative institutions like MSCBs and PACS play a pivotal role in financial inclusion, particularly in rural and semi-urban areas. Despite their importance, these institutions face challenges such as limited capital mobilization, weak recovery mechanisms, and varying profitability. This paper provides an in-depth financial analysis of MSCB and PACS in Manipur, benchmarking their performance against national averages.

1.1 Background:

Agriculture is a primary source of livelihood for the people of Manipur, contributing significantly to both employment and GDP. However, farmers in the state face several challenges, such as inadequate access to credit, high-interest rates from informal lenders, low productivity, and vulnerability to natural disasters. Primary Agricultural Credit Societies (PACS) are cooperative institutions that act as intermediaries between the formal banking system and rural farmers. These societies provide essential services such as short-term credit for agricultural inputs, long-term loans for agricultural equipment, and crop insurance.

The Manipur State Cooperative Bank Limited (MSCB) serves as the apex body that oversees the functioning of PACS in the state. It provides credit lines to PACS, offers technical support, and helps in risk management. MSCB also plays a role in the capacity building of PACS by offering training to their staff and ensuring proper financial discipline. The sustainability and operational efficiency of PACS directly depend on the support they receive from MSCB.

1.2 Objectives of the Study:

This paper aims:

1. To study the working profile of the Manipur State Co-operative Bank Ltd.

2. To examine the role of the Manipur State Co-operative Bank Ltd for promotion of PACS in term of better credit delivery and services for ensuring their viability
3. Examine the role of MSCB in enhancing the financial sustainability of PACS in Manipur.
4. Assess the financial performance and operational efficiency of PACS as influenced by MSCB's support.
5. Identify the challenges faced by PACS in managing finances and how MSCB's interventions help mitigate these challenges.
6. Provide policy recommendations to improve the collaborative relationship between MSCB and PACS for a more sustainable agricultural ecosystem in Manipur.

1.3 Research Questions:

1. How does MSCB's credit provision impact the financial sustainability of PACS in Manipur?
2. What are the key capacity-building initiatives undertaken by MSCB to enhance PACS' operational efficiency?
3. How does the collaboration between MSCB and PACS contribute to rural development in Manipur?
4. What challenges do PACS face in achieving financial sustainability, and how can MSCB's support alleviate these challenges?

1.4 Scope and Period of the Study:

This study focuses on the period from 2018 to 2023, during which the interaction between MSCB and PACS has been relatively stable. The research encompasses all districts of Manipur where PACS are operational, and the data is drawn from both secondary sources such as financial reports of MSCB and PACS, and primary sources including interviews and surveys conducted with PACS officials, MSCB staff, and farmers.

2. Literature Review:

2.1 Cooperative Banking and Rural Development:

Cooperative banks have long been recognized as crucial players in the rural financial landscape, especially in India. According to *Chakraborty (2016)*,

cooperative banks help overcome the barriers to accessing finance for rural and agricultural sectors by providing credit at affordable rates. They also ensure that the credit is utilized for productive purposes, which is essential for the sustainable growth of agriculture.

Sanjay Kanti Das (2012) provides an in-depth analysis of the performance and operational challenges of cooperative banks in Northeast India. His study highlights the critical role of MSCB in channeling funds to PACS and the significant impact of these financial linkages on the economic development of rural areas.

Sarker & Das (2019) in their study on state cooperative banks in India noted that the financial sustainability of PACS is intrinsically tied to the support they receive from apex cooperative banks such as MSCB. The study stressed the need for continuous training and risk management programs to ensure that PACS operate efficiently and can weather the challenges posed by the agricultural sector.

Thokchom Kiran Singh & Dr. Chandibai Potsangbam (2024) in the study by Thokchom Kiran Singh and Dr. Chandibai Potsangbam critically analyzes the financial position of the Manipur State Cooperative Bank (MSCB) using the CRAMEL framework, focusing on capital adequacy, resource composition, asset quality, management effectiveness, earnings, and liquidity. The research highlights MSCB's pivotal role in the rural economy of Manipur, providing essential financial services to farmers and small-scale business owners. Despite challenges such as high non-performing assets (NPAs) and competition from other financial institutions, MSCB has shown growth in capital adequacy and resource mobilization. The study emphasizes the need for improved asset quality management, operational efficiency, and strategic policy interventions to enhance the bank's financial performance and sustainability. This comprehensive analysis provides valuable insights for policymakers and stakeholders in the cooperative banking sector.

2.2 Financial Sustainability of PACS:

Financial sustainability is a critical factor in the long-term viability of PACS. According to **Bhat & Patnaik (2017)**, PACS' ability to offer financial services depends on several factors including capital adequacy, loan recovery rates, and the operational efficiency of the societies. If these factors are not managed properly, PACS may face liquidity challenges, which can undermine their ability to provide services to farmers.

Thokchom Kiran Singh & Dr. Chandibai Potsangbam (2024) analyze the financial position of MSCB, emphasizing the need for robust credit policies and effective monitoring to ensure that PACS remain financially sustainable. Their study underscores the importance of timely loan disbursement and repayment to avoid the risk of default, which could negatively impact the credit system at large.

Vijay Kumar (2015) and Dr. Kuldeep Kumar Attri (2015) argue that state cooperative banks, such as MSCB, need to implement comprehensive risk management strategies and regular audits to strengthen the financial resilience of PACS.

2.3 Challenges Faced by PACS in Manipur:

While PACS play a significant role in financial inclusion, they face several challenges in Manipur. These include:

1. **Inadequate Infrastructure:** Many PACS are located in remote areas with limited access to banking infrastructure and technology, which affects their ability to provide timely financial services.
2. **Low Financial Literacy:** There is a significant gap in financial literacy among the rural population, which results in poor loan utilization and repayment behavior.
3. **Limited Credit Access:** Although MSCB provides loans to PACS, the credit facilities are often insufficient to meet the growing needs of farmers, especially during times of crisis.

3. Research Methodology:

The present study is mainly based on the analysis of secondary data and information available in the various sources like NAFSCOB, Books, and journal, articles. This study is basically empirical in nature. It is an attempt to highlight the major steps taken up by the State Cooperative Bank for promotion of PACS under the scheme for Comprehensive Support Plan under Cooperative Development Fund for NER including Sikkim, Jammu & Kashmir and Andaman & Nicobar Islands launched by NABARD.

3.1 Data Collection:

This study employs both secondary and primary data:

- **Secondary Data:** Financial data obtained from the annual reports of MSCB and PACS, government reports, NAFSCOB and relevant publications on cooperative banking.

- **Primary Data:** The primary data includes qualitative interviews and quantitative surveys such as:
 - Discussion with Key officials of MSCB and PACS.
 - Farmers who are members of PACS.

3.2 Analytical Approach:

The study employs both qualitative and quantitative methods:

1. **Quantitative Analysis:** Financial data, including loan disbursement volume, recovery rates, profitability, and growth in the number of farmers accessing credit, is analyzed to assess the financial sustainability of PACS.
2. **Qualitative Analysis:** Data from interviews and surveys are analyzed using thematic analysis to identify the impact of MSCB's support on PACS' operational practices, management, and overall sustainability.

4. Findings and Discussion:

4.1 Financial Sustainability of PACS in Manipur:

Financial Position of PACS in Manipur:

1. Profit/Loss Position:

- The profit/loss data for PACS from 2018-19 to 2022-23 indicates fluctuations in financial performance. For instance, the average profit/loss figures show that PACS in Manipur have faced challenges, with varying levels of profitability during the years and review.

2. Lending and Recovery:

- The lending and recovery data for PACS in Manipur reveals the extent to which these societies are able to provide loans and recover them. For example, in 2022-23, the short-term agricultural lending was recorded at 109.2, while the recovery was significantly lower, indicating potential issues in loan recovery processes. This disparity highlights the challenges faced by PACS in maintaining financial sustainability.

3. Share Capital, Deposit, and Working Capital:

- The financial position of PACS in terms of share capital, deposits,

and working capital is crucial for their sustainability. The data shows that PACS in Manipur have had varying levels of share capital and deposits over the years, which directly impacts their ability to lend and operate effectively. For instance, the share capital and deposits have shown some growth, but the working capital remains a concern, affecting their operational capabilities.

Role of Manipur State Cooperative Bank Limited:

1. Support to PACS:

The MSCB provides essential financial support to PACS through lending. The data indicates that the bank's lending practices are critical for the operational sustainability of PACS. The ability of MSCB to provide timely and adequate credit can enhance the financial health of PACS, enabling them to serve their members better.

2. Lending Practices:

The lending practices of MSCB, as reflected in the average lending figures, show a commitment to supporting agricultural activities. However, the recovery rates indicate that there may be systemic issues that need addressing to improve the financial sustainability of PACS.

3. Capacity Building:

Beyond financial support, MSCB can play a role in capacity building for PACS, helping them improve their financial management practices, enhance recovery mechanisms, and ultimately achieve better financial sustainability.

Financial Overview from 2018-19 to 2022-23:

1. Share Capital, Deposits, and Working Capital:

- **All India Average:**
 - The All India average for share capital, deposits, and working capital shows a consistent increase over the years. For instance, the average share capital increased from approximately ₹76,055.18 in 2018-19 to ₹73,968.42 in 2022-23, indicating a healthy growth trend in cooperative banking across the country.

- **Manipur Average:**

- In contrast, the Manipur averages for share capital and deposits have been significantly lower. For example, the share capital in Manipur was recorded at ₹351.41 consistently over the years, with only a slight increase to ₹431.12 in 2022-23. This stark difference highlights the limited financial base of PACS in Manipur compared to the national average.

2. *Lending and Recovery Position*

- **All India Average:**

- The All India average for short-term agricultural lending was ₹8,200,779 in 2018-19, increasing to ₹18,552,817 in 2020-21, reflecting a robust growth in lending practices across the country. Recovery rates also showed improvement, indicating effective management of loans.

- **Manipur Average:**

- In Manipur, the short-term agricultural lending figures were much lower, with values like ₹898 in 2021-22 and ₹2,150 in 2022-23. The recovery rates were also inconsistent, with significant gaps between lending and recovery, suggesting challenges in financial management and sustainability.

Discussion and Recommendations:

1. **Enhancing Capital Mobilization:** MSCB and PACS in Manipur must explore innovative methods and ways and means to boost share capital and deposit mobilization.
2. **Improving Recovery Mechanisms:** Streamlining recovery processes and leveraging digital technologies may help improving the loan recovery rates.
3. **Capacity Building:** Training programs for cooperative staff and leaders would help improving operational efficiency of the PACS.
4. **Policy Interventions:** Targeted government interventions, including subsidies and grants, can help address capital shortages and inefficiencies.

The financial analysis reveals that PACS supported by MSCB show an improvement in financial sustainability indicators including:

- **Credit Access:** PACS under MSCB's guidance have seen a 10% increase in the number of farmers accessing credit, with a marked increase in loans for agricultural inputs and long-term investments in machinery.
- **Loan Recovery Rates:** PACS have reported a 15-20% improvement in loan recovery rates due to MSCB's risk management interventions and training programs for staff.
- **Profitability:** PACS that received consistent credit lines from MSCB showed a 5-10% increase in profitability over the study period, as they could serve a greater number of farmers and improve their operational efficiencies.

4.2 Role of MSCB's Capacity-Building Programs:

MSCB's capacity-building programs have played a pivotal role in enhancing the operational efficiency of PACS. These programs, which include staff training, workshops on financial management, and technology integration, have helped PACS streamline their operations and improve customer service.

4.3 Risk Management and Loan Recovery:

MSCB's risk management programs have significantly helped PACS reduce default rates and manage agricultural risks more effectively. By providing crop insurance schemes and advisory services, MSCB has enhanced PACS' ability to offer financial services to farmers in a more sustainable manner.

5. Policy Recommendations:

Based on the findings, the following recommendations are proposed to further enhance the sustainability of PACS:

1. **Investment in Infrastructure:** The government should allocate resources for improving the infrastructure of PACS, particularly in remote regions, to enable better service delivery.
2. **Financial Literacy Programs:** Regular financial literacy campaigns targeting both farmers and PACS members should be introduced to improve loan utilization and repayment rates.
3. **Enhanced Collaboration:** MSCB should foster closer collaboration with PACS to address local challenges and improve the credit provisioning process.

6. Conclusion:

This study highlights the crucial role of Manipur State Cooperative Bank Limited in supporting the financial sustainability of PACS in Manipur. Through credit provision, capacity-building programs, and risk management initiatives, MSCB has significantly contributed to improving the operational efficiency of PACS. However, addressing the infrastructural and financial literacy gaps is essential for ensuring the long-term sustainability of PACS and enhancing their ability to serve the rural farming community.

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Financial Sustainability in Primary Agricultural Cooperative Credit Societies in Puducherry: Strategies and Practices for Rural Development

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Abstract :

This research explores the financial sustainability of Primary Agricultural Cooperative Credit Societies (PACCS) in Puducherry, focusing on their operational effectiveness and contributions to rural development. PACCS are vital in providing credit and financial services to rural communities, contributing significantly to financial inclusion and economic stability. However, many PACCS face challenges related to outdated processes, limited resources, and increasing financial pressures. This study seeks to understand the factors influencing their financial performance and sustainability, emphasising their role in fostering rural development. The study employs a descriptive research method using qualitative and quantitative data. Quantitative data includes performance metrics such as loan disbursement, recovery rates, and financial health indicators from various PACCS. The Qualitative data was collected from interviews with PACCS staff to assess their perceptions of operational effectiveness and financial practices. This study concludes that addressing these barriers is essential for the sustained financial health of PACCS. Suggestions include improving governance structures, diversifying income streams, enhancing member participation, and strengthening financial literacy among stakeholders. These measures can significantly enhance the capacity of PACCS to contribute to rural economic development and financial inclusion.

Keywords:

Financial Sustainability, PACCS, Rural Development

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Introduction:

In India, cooperative banks are member-owned financial institutions that primarily cater to the requirements of their local communities. These banks, rooted in democratic governance and mutual aid, have significantly advanced financial inclusion, particularly for marginalised groups. They provide various banking services at more affordable rates than regular commercial banks, such as credit and savings options. Thanks to their member-centric approach, cooperative banks have played a crucial role in assisting small-scale businesses, agriculture, and rural development. For cooperative banks to be viable and effective over time, their finances must be sustainable. It guarantees that these organisations can keep offering their members vital services without endangering their capacity to make ends meet. Cooperative banks can invest in technology, adjust to shifting regulatory frameworks, and weather economic ups and downs thanks to sustainable financial practices. Additionally, financial sustainability boosts stakeholders' and members' confidence, creating a stable atmosphere for local economic development. Research has demonstrated that cooperatives with sound financial management fare better in financial crises, underscoring the significance of sustainability in their business practices. (Developments in Co-operative Banking, 2024)

Objectives of the Study:

- To evaluate the financial performance of Primary Agricultural Cooperative Credit Societies in the Union Territory of Puducherry.
- To identify the determinants influencing the financial sustainability of PACCS in the Puducherry region.

Research Methodology:

The study uses a quantitative descriptive research methodology to examine financial data from Primary Agricultural Cooperative Credit Societies (PACCS) to assess their financial sustainability. The audit reports of all 41 PACCS in the Puducherry region, spanning five years, were used for the study. Key performance indicators (KPIs), including loan disbursement, recovery rates, and operational efficiency, are the focus of the quantitative analysis. With a particular geographic focus on the Puducherry region, the study offers insights into the financial viability of these cooperative credit organisations that are unique to that area.

About PACCS in India and Puducherry:

The grassroots organisations that make up India's cooperative credit system are called Primary Agricultural Cooperative Credit Societies (PACCS). For

rural farmers looking for finance and other agricultural services, they are the initial point of contact. PACCS gives farmers short-term loans, collects payments, and distributes fertiliser and seeds, among other agricultural products. They are essential to financial inclusion, particularly for marginal and small farmers. The State Registrar of Cooperative Societies oversees PACCS, which the Cooperative Societies Act registers. The National Bank for Agriculture and Rural Development (NABARD) re-finances them through State Cooperative Banks (SCBs) and District Central Cooperative Banks (DCCBs). (Ministry of Cooperation, 2023)

The Indian Union Territory of Puducherry, known initially as Pondicherry, has a long history of French colonial influence. Mahé, Yanam, Karaikal, and Puducherry are the four non-contiguous districts that make up the region. PACCS in Puducherry functions similarly to other regions of India, offering local farmers vital financial services. There are a lot of PACCS in the union territory, which helps the area's rural and agricultural growth. PACCS are essential to India's agriculture industry since they facilitate farmers' access to inputs and loans. Nevertheless, they encounter obstacles, including low deposit levels, high non-performing assets (NPAs), and insufficient digital infrastructure. PACCS is being modernised through computerisation and other measures to improve its transparency and operational effectiveness.

Performance	2017-2018		2018-2019		2019-2020		2020-2021		2021-2022	
Indicator	PSCB	PACCS	PSCB	PACCS	PSCB	PACCS	PSCB	PACCS	PSCB	PACCS
No.of.Societies*	1	53	1	53	1	53	1	53	1	53
Membership*	137	131313	179	137882	172	137882	280	190	280	193
Share Capital	2750	1226.33	2836	1253.5	2815	1431.84	2848	1257.37	2885	2062.19
Deposits	67730	14824.6	71101	15782	72765	17259.85	75352	19900.44	79902	21366.27
Borrowings	62	3326.54	0	3937.52	0	4216.14	0	4917.3	0	4910.88
Reserves	2041	1678.21	2076	1538.06	2115	1520.93	4774	1640.32	4684	1754.05
Working Capital	78371	21055.68	85497	22511.99	80198	24428.76	82323	28494.07	6200	30093.39
Total Loan Issued (ST+MT)	56126	40140.83	68733	7275.89	60707	4997.89	74914	2948.83	59408	47392.04

(* in Numbers) (Source: Compiled from NAFSCOB Annual Reports)

The Puducherry State Cooperative Bank (PSCB) and Primary Agricultural Cooperative Credit Societies (PACCS) have demonstrated noteworthy developments in their financial operations and contributions to rural development between 2017 and 2022. As a result of greater involvement in

cooperative banking, the PSCB's membership climbed dramatically from 137 to 280, but the number of PACCS stayed steady at 53. The slight increase in PACCS membership suggests that rural engagement is stable. Both PSCB and PACCS had consistent increases in share capital, going from ₹2,750 lakhs to ₹2,885 lakhs and from ₹1,226.33 lakhs to ₹2,062.19 lakhs, respectively. This indicated an increase in member contributions and financial confidence. With PSCB rising from ₹67,730 lakhs to ₹79,902 lakhs and PACCS rising from ₹14,824.6 lakhs to ₹21,366.27 lakhs, deposits also showed steady growth, indicating improved savings mobilisation.

Although PSCB's borrowings were small, demonstrating its financial independence, PACCS's borrowings increased from ₹3,326.54 lakhs to ₹4,910.88 lakhs, most likely in response to growing rural loan requests. PACCS reserves changed somewhat, finishing at ₹1,754.05 lakhs, whereas PSCB reserves increased dramatically, especially in 2020–21, reaching ₹4,684 lakhs in 2021–22. PSCB saw a drop from ₹82,323 lakhs in 2020–21 to ₹6,200 lakhs in 2021–22, indicating operational or financial issues, while PACCS had stable growth, rising from ₹21,055.68 lakhs to ₹30,093.39 lakhs. While PACCS showed a strong recovery in loan issuance, going from ₹2,948.83 lakhs in 2020–21 to ₹47,392.04 lakhs in 2021–22, PSCB loan disbursements varied, peaking at ₹74,914 lakhs in 2020–21 before falling to ₹59,408 lakhs.

Financial Performances of the Primary Agricultural Cooperative Credit Societies (PACCSs) in Puducherry

(Rs.in.Lakhs)

Year	No.of Societies	Membership	Working Capital	Deposits	Lending	Recovery	Profit	Loss
2017-18	41	1.54	16515	13938	14741	16899	273	1782
2018-19	41	1.57	18755	13768	16228	16012	252	2547
2019-20	41	1.58	19928	15615	18814	18019	293	2226
2020-21	41	1.61	21487	16825	19766	20864	363	2419
2021-22	41	1.64	22894	17537	23882	22583	448	2559
Average	41	1.59	19704.5	15737.5	19311.5	19741	360.5	2170.5
S.D.	0	0.07	4510.63	2544.88	6463.66	4019.19	123.74	549.42
C.V.	0	0.04	0.23	0.16	0.33	0.20	0.34	0.25
CGAR%	0%	0.63%	3.32%	2.32%	4.94%	2.94%	5.08%	3.69%

(Source: Compiled from Audit Reports of the PACCS)

During 2017–18 to 2021–22, the financial performance of Puducherry's Primary Agricultural Cooperative Credit Societies (PACCSs) shows notable advancements in some operational and financial metrics. While membership increased modestly from 1.54 lakh to 1.64 lakh, representing a compound annual growth rate (CAGR) of 0.63% and a steady rise in member participation, the PACCS stayed at 41. At a compound annual growth rate (CAGR) of 3.32%, working capital increased dramatically from ₹16,515 lakhs to ₹22,894 lakhs, demonstrating improved resource mobilisation. With a compound annual growth rate (CAGR) of 2.32%, deposits also increased steadily from ₹13,938 lakhs to ₹17,537 lakhs, indicating growing public confidence in PACCS as a trustworthy savings institution. Out of all the variables, lending had the highest CAGR of 4.94%, increasing from ₹14,741 lakhs in 2017–18 to ₹23,882 lakhs in 2021–2022. The recovery rates demonstrated Effective credit management, which increased gradually from ₹16,899 lakhs to ₹22,583 lakhs at a CAGR of 2.94%. With a compound annual growth rate (CAGR) of 5.08%, profitability showed impressive development, rising from ₹273 lakhs to ₹448 lakhs, indicating increased operational efficiency. However, losses also increased from ₹1,782 lakhs to ₹2,559 lakhs, a compound annual growth rate (CAGR) of 3.69%. This suggests that operational inefficiencies and financial risks must be managed more effectively.

With rising membership, deposits, lending, and recovery, PACCS in Puducherry demonstrated steady financial growth. Even while profitability has increased, the increase in losses highlights the necessity of strategic interventions to resolve operational issues and guarantee long-term financial viability. These patterns show that PACCS is important in promoting financial inclusion in rural areas and assisting with regional economic growth.

Strategies for Financial Sustainability of PACCS in Puducherry:

Enhancing Credit Administration: PACCS must prioritise efficient credit management procedures to improve financial performance. This entails establishing reliable loan monitoring systems, instruments for evaluating borrower risk, and real-time repayment tracking. PACCS can achieve its credit-related goals and guarantee improved financial stability by raising recovery rates and lowering default risks.

Combining Different Revenue Sources: By offering more services than just standard financing, PACCS can increase their sources of income. Rural communities' needs will be met while creating extra revenue by introducing

micro insurance, remittance facilities, and agricultural value-chain finance. Additionally, diversification will lessen reliance on finite revenue streams, enhancing sustainability over the long run.

Increasing the Effectiveness of Operations: Reducing operating expenses and guaranteeing smooth service delivery requires adopting digital tools and automating administrative procedures. Members, especially those in remote places, will benefit from increased accessibility and efficiency due to integrating digital payment platforms, mobile banking, and core banking services. Benchmarking and routine performance audits can help maximise resource use even more.

Enhancing Participation of Members: The expansion of PACCS depends on the active participation of its members. Programs for financial literacy can inform participants about the advantages of cooperative banking and promote increased participation. Incentives like lower loan processing fees or higher interest rates on deposits can increase deposits and build member confidence, which is essential for enhancing working capital.

Making Use of Innovation and Technology: To remain competitive and satisfy the needs of the digital economy, PACCS must adopt new technologies. Working with financial technology companies to provide creative solutions to rural needs can improve service delivery and operational capacities. Thanks to digital transaction platforms and mobile banking applications, rural communities will have greater access to financial services.

Policy Promotion and Assistance: Government regulations significantly impact PACCS's financial stability. They can improve their financial foundation by looking for tax breaks, subsidies, and low-cost financing. Furthermore, PACCS will maintain its viability and competitiveness in a changing financial environment by supporting laws that encourage cooperative expansion and financial inclusion.

Examining Profitability and Loss Control: By cutting costs and allocating resources as efficiently as possible, PACCS can reduce operational losses. Investing in various low-risk, high-return ventures can increase reserves and boost profitability. Financial performance can be further stabilised by implementing risk management and cost reduction interventions.

Training and Capacity Building: Frequent capacity-building initiatives will provide PACCS management and staff with up-to-date financial and banking expertise. Their capacity to handle financial difficulties, make better decisions, and successfully apply tactics meant to achieve financial

sustainability can all be improved by training programs. These tactics offer a thorough framework to improve PACCS in Puducherry and align with the study's goals of assessing financial performance and determining factors that influence financial sustainability. By concentrating on these locations, PACCS may strengthen their operational resilience, promote economic growth in rural areas, and carry out its mission as the region's primary force behind financial inclusion.

Conclusion:

The study emphasises the importance of Primary Agricultural Cooperative Credit Societies (PACCS) to Puducherry's rural development and financial inclusion. As evidence of their significance in addressing the financial requirements of rural areas, PACCS showed a steady increase in membership, deposits, lending, and recovery during the study period. Nonetheless, issues, including increasing operational losses and fluctuating financial performance, highlight the necessity of focused measures. PACCS must implement initiatives prioritising member involvement, technological integration, operational efficiency, and service diversity to achieve sustainable growth. In order to reduce risks and improve financial resilience, it is also essential to strengthen credit management and leverage policy support. By implementing these tactics, PACCS can keep up its crucial role in promoting economic fairness, empowering rural people, and aiding in the general development of the Puducherry area.

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Performance of Primary Agricultural Credit Societies based on financial ratios in Udupi District of Karnataka

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Abstract:

The Primary Agricultural Co-operative Societies (PACS) form the basic foundation of cooperative credit system essential for farming community. PACS are organized, managed and benefitted by member farmers. The financial institutions directly associated with agricultural finance at grass root level in the State are Primary Agricultural Credit Co-operative Societies (PACS) which provide short-term crop loans to their cultivator members.. Primary Agricultural Credit Societies can strengthen the capacity of farmers to mobilise funds and invest in Agriculture. This can help to channelize more investments in agriculture. Strengthening of market linkages and knowledge dissemination of best practices (Including cropping pattern based on agro-climatic conditions) for the farmers is also important to improve price discovery of farm produce and facilitate upliftment and empower the farmers by strengthening his knowledge capital. Agriculture is the main occupation of the people of Udupi District. A total of 72% of population of the district lives in rural areas and most of them depend on agriculture. PACS plays an important role in providing timely credit to the farming community. Present study was conducted to estimate the financial performance of PACS and to examine the growth of PACS in terms of membership, share capital, deposits, loan advanced and profit. For this purpose a compound annual growth rate (CAGR) is calculated by taking the data for a period of 8 years from 2014-15 to 2020-21. It is concluded from the study that in the PACS of Udupi District, more growth is found in Reserve fund (18%), Working capital (18%) and Deposits (16%) and less growth is observed in membership (2%) and loans (6%) in the last 8 years. The financial performance evaluation of PACS of the district is done by Ratio Analysis. PACS Kodavur of Udupi taluk has the highest profitability ratio (1.48). PACS which are located in Urban areas are

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having more profitability ratio than PACS of rural areas. PACS Mundkur of Karkala Taluk is having highest liquidity ratio (2.75). PACS Mananje of Kundapur Taluk is having highest solvency ratio to enhance its Business Development Plan.

Key Words : PACS, Udupi District, Ratio Analysis

Introduction:

Agriculture being the largest sector of the Indian economy in terms of employment plays an important role in accelerating the pace of economic development and making the economic growth more inclusive and sustainable. Indian agriculture has had a long history of challenges related to land ownership, adequate irrigation cover and access to infrastructure, technology, market and credit. During last 50 years, Indian Agriculture has undergone major transformation from dependence on Food Aid to a Net Food Exporter. Despite major strides, agriculture is facing distress in many parts of country due to various reasons like climatic change, high and increasing input cost, non-remunerative price in the market, low share of farmers in final price, poor penetration of crop insurance, absence of market infrastructure etc.,

Agriculture credit has been largely supply driven in its basic design. There is an urgent requirement to make agriculture credit more responsive to the demands of the customers to meet the envisaged objectives of empowering farmers in a holistic manner and thus reposition cooperatives as socio-economic entities. In this context, Primary Agricultural Credit Societies have an important role. PACS being the registered co-operative society has been providing credit and other services like supply of inputs, hiring of agriculture implements and storage facility to its members. Situated at the grass-root level, PACS can be made to function as truly member driven enterprises and provide the vital link in the term cooperative credit system, based on paradigms of transparency and accountability. At present a large number of PACS are rather small in size to be economical and viable and a large number of them are dormant. They face problems of infrastructural weaknesses, operational inefficiencies and structural flaws.

Borrowing membership of a large number of PACS also remains much lower than its potential. In order to re-orient PACS to future challenges and opportunities of rural economy, and inspire confidence in their existing and potential members, depositors and borrowers, business opportunities provided to PACS need to be enlarged. Therefore, PACS need to develop as a one stop shop for meeting all the needs of farmers, provide much-needed

forward and backward linkages to rural economy and thus make the PACS and in turn foundations of agri-credit stronger.

PACS can also transform agriculture into a more financially viable activity and enable farmers to undertake activities such as organic farming, contract farming, joint farming etc., A strong PACS is very vital if the call of Government of India to double the Farmer's Income is intended to be doubled through "Evergreen Revolution" and "Rainbow Revolution". We need to put more money in the pocket of the farmer and not in their hands and this can be done only if the farmer is able to take up other activities in addition to traditional agriculture. Farmer has to focus on transforming traditional agriculture into technology oriented mechanised agriculture.

Methodology:

Udupi District has seven taluks, namely Udupi, Kundapura, Karkala, Kaup, Brahmavara, Hebri and Byndoor. There is a vast network of co-operative institutions working at different levels of credit in this district. As such, the co-operative movement is well developed in this district. The co-operative sector in the district consists of various types of Co-operative agricultural credit and marketing, societies, urban co-operative banks and so on. There are 54 PACS (Primary Agricultural Credit Societies) in Udupi District of Karnataka. Out of 7 taluks in the district, 8 PACS from 5 talukas and 7 PACS from 2 talukas are selected for the study. There are 3,05,161 members in the selected 54 PACS of the district, who formed the universe of the present study. Out of these members 2,34,282 are borrowers while the remaining 70,879 are non-borrowers. On the basis of random sampling technique, 300 of the borrowers and 200 of the non-borrowers were selected for the present study.

Table 1: Overall Growth Index of PACS of Udupi District

SI	Year	Members	Share Capital(Rs.)	Reserves (Rs.)	Deposits (Rs.)	Working Capital(Rs.)	Loan (Rs.)	Profit (Rs.)
1	2013-14	190152	3609	10327.8	84556	111813	27190	1797
2	2014-15	193486	6519	11138.83	100749	140127	33331	2201
3	2015-16	205784	5246	14802.22	139659	182103	31452	2681
4	2016-17	216930	5897	16452.66	141455	192364	29517	2815
5	2017-18	220828	6830	36755.48	157889	231672	19233	3340
6	2018-19	228404	7489	39705.25	181117	272862	18171	3792
7	2019-20	221644	8411	29042.18	211464	297685	19656	3371
8	2020-21	223182	9187	32951.94	236316	357564	41404	4355
	CAGR	2%	14%	18%	16%	18%	6%	13%

The study attempts to study the growth of PACS in terms of membership, share capital, deposits, loan advanced and profit. For this purpose a compound annual growth rate (CAGR) is calculated by taking the data for a period of 8 years from 2014-15 to 2020-21.

$$\text{CAGR} = [(\text{End value} / \text{Beginning Value})^{(1/\text{years})}]$$

Table 1 Illustrates that there is 2% Compound Annual Growth Rate in terms of membership, 14% growth in Share capital, 18% growth of Reserve fund, 16% growth in Deposits, 18 % growth in working capital, 6% growth in loans and 13% growth in Profit. It is observed that the growth in membership of PACS and loan advanced is only 2% and 6% respectively. From this it could be interpreted that PACS are giving less importance to enhance their membership and in advancing loan to its members.

Financial Ratios as Indicators of Performance:

Ratios are widely used to evaluate the financial position and performance of a business although many limitations are attached to ratio analysis. Most of the performance evaluation and failure prediction models used ratios as they indicated the performance better than any other tools. Therefore the ratios are used here for performance evaluation of PACS.

The ratios are calculated on the basis of the data drawn from the questionnaire from year 2014 to 2021. All the 54 PACS of Udupi district are considered as sample societies. The eight year averages of the value of ratio variables are taken here because year to year ratios are less reliable due to the tendency to manipulate accounts like over evaluation of closing stock, under valuation of charges, over charge of provision for expenses etc., There are self correcting when a longer period rather than a year is taken for analysis (Guptha, 1991,p30).

Ratio Analysis:

Narayanaswamy, Rao and Mayya(2006) suggested a statistical model for performance evaluation of Primary Agricultural Credit Societies. The ten ratios included in the model that indicate the performance of PACS are used here to evaluate the performance of sample units.

(a) Profitability Ratio:

Profitability ratio is calculated by dividing the net profit earned by outstanding share. The following table indicated the profitability of the PACS of Udupi District.

Table 2: Profitability of PACS of Udupi District

SI	Name of Society	Average Profit (2014-21)	Average Assets (2014-21)	Profitability Ratio
1	PACS Kokkarane	73.81	722.30	0.10
2	PACS Brahmavar	229.14	750.0	0.31
3	PACS Uppoor	36.19	529.10	0.07
4	PACS Sasthana	57.34	656.30	0.09
5	PACS Mandarthi	60.35	395.50	0.15
6	PACS Shiriyara	62.80	1062.30	0.06
7	PACS kota	131.55	695.70	0.19
8	PACS Barkur	30.29	180.40	0.17
9	PACS Hiriyaadka	65.06	576.80	0.11
10	PACS korangrapadi	64.88	115.10	0.56
11	PACS Kemmannu	66.11	488.30	0.14
12	PACS Kodavur	63.51	43.00	1.48
13	PACS Herga	59.82	146.70	0.41
14	PACS Padubidri	57.66	275.0	0.21
15	PACS Belle	12.17	123.10	0.10
16	PACS Shirva	32.71	233.70	0.14
17	PACS Belapu	39.22	484.50	0.08
18	PACS Innanje	22.88	458.40	0.05
19	PACS Kaupu	0	132.60	0
20	PACS Katpady	15.98	144.20	0.11
22	PACS Ajekar	28.96	535.0	0.05
23	PACS Varanga	25.78	324.80	0.08

24	PACS Belve	80.86	523.90	0.15
25	PACS Hirgana	5.80	253.10	0.02
26	PACS Bola	24.52	254.30	0.10
27	PACS Malakervasshe	35.11	449.30	0.08
28	PACS Neerebailur	31.30	484.90	0.06
29	PACS Belman	37.00	486.10	0.08
30	PACS Mundkur	28.88	534.10	0.05
31	PACS Jaladurga	11.00	332.40	0.03
32	PACS Sanoor	5	355.50	0.01
33	PACS Siddapura	55.33	1277.00	0.04
34	PACS Shankaranarayana	72.66	720.70	0.10
35	PACS Mananje	149.32	541.20	0.28
36	PACS Kavrady	31.22	483.60	0.06
37	PACS Panchaganga	68.05	691.80	0.10
38	PACS Molahalli	31.85	636.40	0.05
39	PACS Kundapura	62.02	236.60	0.26
40	PACS Koteshwara	63.91	392.00	0.16
41	PACS Vandse	66.32	699.40	0.09
42	PACS Karkunje	30.51	665.70	0.05
43	PACS Basrur	52.76	659.50	0.08
44	PACS Aloor harkur	34.28	566.20	0.06
45	PACS Amparu	87.32	1221.90	0.07
46	PACS Amasebailu	34.81	655.70	0.05
47	PACS Ulloor Machettu	39.67	532.60	0.07
48	PACS Byndoor	68.05	568.90	0.12
49	PACS Mudooru	42.24	570.0	0.07

50	PACS Padukone	24.84	264.50	0.09
51	PACS Kolluru	41.16	503.50	0.08
52	PACS Jadkal	16.28	195.50	0.08
53	PACS Khambadakone	314.55	1022.90	0.31
54	PACS Maravanthe Badakere	76.90	709.30	0.11

From table 2 it could be observed that PACS Kodavur of Udupi taluk has the highest profitability ratio of 1.48. Followed by that are PACS Korangrapady having profitability ratio of 0.56. PACS Herga has the profitability ratio of 0.41. PACS Brahmavara and PACS Khambadakone have the profitability ratio of 0.31. PACS Mananje has the profitability ratio of 0.28. PACS Kundapura has the profitability ratio of 0.26.

From the above data it could be illustrated that PACS which are located in Urban areas are having more profitability ratio than PACS of rural areas. It could be observed from the profitability ratio of PACS Kodavuru, PACS Korangrapadi, PACS Herga, PACS Brahmavara and PACS Kundapura. Only two of the PACS located in rural areas ie., PACS Mananje and PACS Khambadakone have got higher profitability ratio. In rural areas most of the people depend on agriculture, the primary sector for their livelihood. In Urban areas people depend more on secondary and service sector where the profitability ratio of the PACS situated in the area is higher.

b) **Liquidity Ratio:**

Liquidity ratio of a company is a measure of company (Institution)'s ability to pay debt obligations and its margin of safety through the calculation of metrics including the current ratio, quick ratio and operating cash flow ratio.

Current Ratio: Current ratio is the ratio of the assets to the liability. The following table indicated the current ratio of the PACS of Udupi District.

Table 3: Current ratio of PACS of Udupi District

SI	Name of PACS	Total Asset	Total Liability	Current Ratio
1	PACS Kokkarane	5778.386	10648.37	0.54265
2	PACS Brahmavar	5999.969	10937.28	0.54858
3	PACS Uppoor	4232.902	18961.8	0.22323

4	PACS Sasthana	5250.404	2648.73	1.98223
5	PACS Mandarthi	3164.025	9871.6	0.32052
6	PACS Shiriya	8498.468	43834.26	0.19388
7	PACS Kota	5565.981	6482.77	0.85858
8	PACS Barkur	1443.332	1787.96	0.80725
9	PACS Hiriyadka	4614.026	2416.79	1.90915
10	PACS Korangrapadi	921.09	3482.41	0.26450
11	PACS Kemmannu	3906.121	3832.01	1.01934
12	PACS Kodavur	343.99	6174.96	0.05571
13	PACS Herga	1173.78	2356.56	0.49809
14	PACS Padubidri	2200.26	6209.49	0.35434
15	PACS Belle	984.8	924.77	1.06491
16	PACS Shirva	1869.872	4292.94	0.43557
17	PACS Belapu	3875.679	1984.73	1.95275
18	PACS Innanje	3666.92	1868.9	1.96207
19	PACS Kaupu	1220.57	2565.22	0.47581
20	PACS Katpady	1153.28	1032.28	1.11722
21	PACS Hebri	7304.359	17109.87	0.42691
22	PACS Ajekar	4280.38	8634.79	0.49571
23	PACS Varanga	2598.294	7815.39	0.33246
24	PACS Belve	4191.221	15709.72	0.26679
25	PACS Hirigana	2025.135	897.33	2.25684
26	PACS Bola	2034.135	3336.28	0.60970
27	PACS Malakervashe	3594.245	9679.74	0.37132
28	PACS Neerebailur	3879.345	1758.77	2.20571
29	PACS Belman	3889.042	3968.09	0.98008
30	PACS Mundkur	4272.463	1549.78	2.75682
31	PACS Jaladurga	2659.2	5059.17	0.52562
32	PACS Sanoor	2844.176	1586.73	1.79248
33	PACS Siddapura	10216.1	15591.48	0.65524

34	PACS Shankaranarayana	5765.585	9389.96	0.61402
35	PACS Mananje	4329.426	30534.11	0.14179
36	PACS Kavrady	3869.181	4619.49	0.83758
37	PACS Panchaganga	5534.617	14364.45	0.38530
38	PACS Molahalli	5090.982	8309.52	0.61267
39	PACS Kundapura	1892.87	2522.96	0.75026
40	PACS Koteshwara	3136.2	9958.36	0.31493
41	PACS Vandse	5595.571	11001.88	0.50860
42	PACS Karkunje	5325.348	45866.52	0.11611
43	PACS Basrur	5276.21	6481.62	0.81403
44	PACS Aloor Harkur	4529.438	6595.83	0.68671
45	PACS Amparu	9775.038	8161.23	1.19774
46	PACS Amasebailu	5245.332	8548.14	0.61362
47	PACS Ulluru Machchettu	4260.474	11300.78	0.37701
48	PACS Byndoor	4551.547	14364.45	0.31686
49	PACS Muduru	4560.108	9887.87	0.46118
50	PACS Padukone	2115.616	1999.69	1.05797
51	PACS Kollur	4028.237	48055.02	0.08383
52	PACS Jadkal	1564.167	6592	0.23728
53	PACS Khambadakone	8183.152	32266.96	0.25361
54	PACS Maravanthe badakere	5674.478	7152.86	0.79332
	Total	532984.7	219955.5	

We can find from the above table 3 that out of 54 PACS of Udipi district the following PACS have current ratio more than 1 and the rest less than 1.

Table 4: PACS Current ratio more than 1

SI	Name of PACS	Current Ratio
1	PACS Kemmannu	1.01
2	PACS Padukone	1.05
3	PACS Belle	1.06

4	PACS Katpady	1.11
5	PACS Amparu	1.19
6	PACS Jaladurga	1.79
7	PACS Hiriyadka	1.90
8	PACS Belapu	1.95
9	PACS Innanje	1.96
10	PACS Sasthana	1.98
11	PACS Neerebailuru	2.20
12	PACS Hirgana	2.25
13	PACS Mundkur	2.75

All the above PACS of Table 4 indicates that their current assets are more than their current claims and are highly liquid.

c) Solvency Ratio:

Solvency ratio is the ratio of Reserves and Surplus to Share Capital. This ratio indicates the amount of Reserves and Surplus the society has built up out of profit in relation to Share Capital. The higher the ratio of Reserves and Surplus to share capital, the better it is for the society to expand the business without having to depend on outside source of funds

$$\text{Solvency Ratio} = \text{Reserves and Surplus} / \text{Share Capital}$$

Table 5: Solvency ratio of PACS

SI	Name of PACS	Total Reserves	Total Share Capital	Solvency Ratio
1	PACS Kokkarane	2615.21	1331.66	1.96
2	PACS Brahmavar	8366.96	2570.32	3.26
3	PACS Uppoor	1323.92	554.5	2.39
4	PACS Sasthana	1955.07	693.66	2.82
5	PACS Mandarthi	1891.28	1063.08	1.78
6	PACS Shiriya	34720.54	1438.87	2.41
7	PACS Kota	4507.16	1619.95	2.78
8	PACS Barkur	1491.2	296.76	5.02
9	PACS Hiriyadka	1432.17	982.46	1.46
10	PACS Korangrapadi	2847.29	635.12	4.48
11	PACS Kemmannu	3027.25	804.76	3.76
12	PACS Kodavur	5396.01	739.34	7.30

13	PACS Herga	1178.28	1178.28	1.00
14	PACS Padubidri	5535.1	674.39	8.21
15	PACS Belle	548.43	376.34	1.46
16	PACS Shirva	1192.71	950.94	1.25
17	PACS Belapu	1416.78	512.95	2.76
18	PACS Innanje	1422.15	391.75	3.63
19	PACS Kaupu	487.62	624.92	0.78
20	PACS Katpady	143.39	320.39	0.45
21	PACS Hebri	3742.64	2309.33	1.62
22	PACS Ajekar	3742.64	737.38	5.08
23	PACS Varanga	1623.25	2326.84	0.70
24	PACS Belve	1334.42	1931.52	0.69
25	PACS Hirgana	185.84	171.97	1.08
26	PACS Bola	217.01	397.08	0.55
27	PACS Malakervashe	1955.07	783.6	2.49
28	PACS Neerebailur	1259.28	499.49	2.52
29	PACS Belman	1623.25	2326.84	0.70
30	PACS Mundkur	1197.52	352.26	3.40
31	PACS Jaladurga	811.29	327.34	2.48
32	PACS Sanoor	343.42	221.87	1.55
33	PACS Siddapura	1958.97	2429.79	0.81
34	PACS Shankaranarayana	3951.97	851.24	4.64
35	PACS Mananje	13447.71	1580.43	8.51
36	PACS Kavradu	867.05	522.59	1.66
37	PACS Panchaganga	2364.81	1538.55	1.54
38	PACS Molahalli	1021.68	740.8	1.38
39	PACS Kundapura	1083.67	816.7	1.33
40	PACS Koteshwara	2567.01	936.86	2.74

41	PACS Vandse	1643.26	1201.7	1.37
42	PACS Karkunje	907.48	805	1.13
43	PACS Basrur	1674.12	807.99	2.07
44	PACS Aloor Harkur	701.77	711.34	0.99
45	PACS Amparu	2589.36	957.68	2.70
46	PACS Amasebailu	863.54	893.64	0.97
47	PACS Ulluru Machchettu	472.64	1018.76	0.46
48	PACS Byndoor	2364.81	1538.55	1.54
49	PACS Muduru	819.67	1046.38	0.78
50	PACS Padukone	158.9	593.52	0.27
51	PACS Kollur	39850.14	1009.39	3.95
52	PACS Jadal	1811.24	567.53	3.19
53	PACS Khambadakone	9139.55	1263.01	7.24
54	PACS Maravanthe badakere	1382.86	1210.62	1.14
	Total	124063.36	53188.03	

It is observed from Table 5 that out of 54 PACS of Udupi district only 12 PACS are having solvency ratio less than one. Out of 54 PACS 42 PACS are having solvency ratio more than one. This indicates that 77.78 per cent of PACS has the potential to expand the business without having to depend on outside source of funds.

Conclusion:

Agriculture credit has been largely supply driven in its basic design. There is an urgent requirement to make agriculture credit more responsive to the demands of the customers to meet the envisaged objectives of empowering farmers in a holistic manner and thus reposition cooperatives as socio-economic entities. In this context, Primary Agricultural Credit Societies have an important role. PACS being the registered co-operative society, has been providing credit and other services like supply of inputs, hiring of agriculture implements and storage facility to its members. Situated at the grass-root level, PACS can be made to function as truly member driven enterprises and

provide the vital link in the term cooperative credit system, based on paradigms of transparency and accountability. In order to re-orient PACS to future challenges and opportunities of rural economy, and inspire confidence in their existing and potential members, depositors and borrowers, business opportunities provided to PACS need to be enlarged. Therefore, PACS need to develop as a one stop shop for meeting all the needs of farmers, provide much-needed forward and backward linkages to rural economy and thus make the PACS and in turn foundations of agri-credit stronger.

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04

Building Self-Reliance through Cooperatives: A Case of Thadicombu PACCS in Dindigul District

T. Deepa*, DR. B. Tamilmani**

Abstract:

The Thadicombu Primary Agricultural Cooperative Credit Society, located in Tamil Nadu, exemplifies the role of cooperatives in fostering economic self-reliance within rural communities. Established to support local farmers and artisans, the Cooperative has focused on collective initiatives like agriculture, dairy farming, and small-scale manufacturing. Through these activities, it has empowered members with stable incomes, skill development, and a sense of community ownership. Aligning with the Aatma Nirbhar Bharat mission, Thadicombu Cooperative Society leverages local resources to promote self-sustaining economic growth, aiming to reduce dependence on external markets and create long-term prosperity in the region. The aim of this study is to examine how the Thadicombu Cooperative Society promotes self-reliance by fostering local enterprises. It seeks to assess the cooperative's role in generating sustainable livelihoods, enhancing economic independence, and empowering community members, contributing to the broader vision of Aatma Nirbhar Bharat. The objectives split up are: to assess the impact of Thadicombu Cooperative Society on local economic development; to examine how the cooperative promotes self-sufficiency and sustainable livelihoods; to analyze the role of the cooperative in empowering the community; and to align cooperative activities with Aatma Nirbhar India goals. Through empirical research methods, the impact of cooperatives in building self-reliance among the members of society is carried out. Random sampling will be applied to select the farmer-members.

Thadicombu Cooperative Society plays a vital role in fostering self-reliance by supporting sustainable local enterprises in agriculture and manufacturing.

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These initiatives provide stable livelihoods and contribute to rural economic development.

Key words:

Thadicombu Cooperative Society, rural development, sustainable livelihoods.

Introduction:

The Thadicombu Primary Agricultural Cooperative Credit Society, located in Tamil Nadu, exemplifies the role of cooperatives in fostering economic self-reliance within rural communities.

Established to support local farmers and artisans, the Cooperative has focused on collective initiatives like agriculture, dairy farming, and small-scale manufacturing. Through these activities, it has empowered members with stable incomes, skill development, and a sense of community ownership. Aligning with the Aatma Nirbhar Bharat mission, Thadicombu Cooperative Society leverages local resources to promote self-sustaining economic growth, aiming to reduce dependence on external markets and create long-term prosperity in the region.

Objectives:

To assess the impact of Thadicombu Cooperative Society on local economic development. To examine how the cooperative promotes self-sufficiency and sustainable livelihood. To analyze the role of the cooperative in empowering the community; and to align cooperative activities with Aatma Nirbhar India goals.

Methodology:

Through empirical research methods, the impact of cooperatives in building self-reliance among the members of society is carried out. Random sampling will be applied to select the farmer members.

Performance of the Thadicombu Primary Agricultural Cooperative Credit Society Limited

Origin of the Select Society:

Thadicombu Primary Agricultural Cooperative Credit Society Limited, was registered a Cooperative Society under the Tamil Nadu Cooperative Societies Act of 1983. The society was registered on 13.09.1968. It commenced its

working on 01.11.1968. The main reason for organizing the society was to provide credit facilities to the needy farmers for their agricultural purpose in sixties, the sample society was a multipurpose cooperative credit society and it was changed as a primary agricultural thrift society in the succeeding years. Then it has been functioning as a primary agricultural cooperative credit society since 1991.

Objectives of the Society:

- To accept deposits from the members.
- To borrow from financial institution for the purpose of lending to its members.
- To purchase and supply agricultural requirements like seeds, manure only.
- To encourage the habit of thrift, self-help, Mutual help, cooperation among members.
- To own or hire godowns to provide facilities to the members for store of their produces and sale at advantageous prices.
- To acquire or purchase or obtain land on lease.
- To disseminate among the members, the knowledge of the latest improvement in agriculture for providing demonstration in conformity with the advices of the agricultural department.

Functions of the Society:

- It promotes economic interest of members in accordance with the cooperative principle.
- It provides short term and medium-term loans.
- It promotes savings habits among members.
- It supplies agricultural inputs like fertilizers, seeds, insecticides, and implements.
- It provides marketing facilities for the sale of agricultural products.
- It supplies domestic products requirements such as sugar, kerosene etc.
- It promotes cooperation, self-help and mutual help among members.

Table 1.1
Membership Position of the Society

(in numbers)

Year	Total Members
2013–2014	2820
2014–2015	2820
2015–2016	2820
2016–2017	2820
2017–2018	2820
2018–2019	2820
2019–2020	2820
2020–2021	2732
2021–2022	2763
2022–2023	2763

Source: (Compiled from the Audit and Annual Reports of the Society)

Above table represents the membership position of the society for the past ten years. In the year 2013-2014 the membership position was 2820, further it has been decreased to 2763 in the year 2022-23 due to COVID–19. In overall, during the study period the membership position of the society.

Share capital position of the society:

Share Capital represents the initial contribution made by the members of the society it is a significant source of fund for every cooperative. The society derives to mobilize more amount of share capital. The authorize share capital of the society shall be Rs.25,00,000/-it will consist of 25000 Shares of Rs. 100 each.

Each share is allowed and the share amount Is to be paid in full. The Shares amount paid by the government should not exceed 25 percent of the total paid up share capital amount in the society.

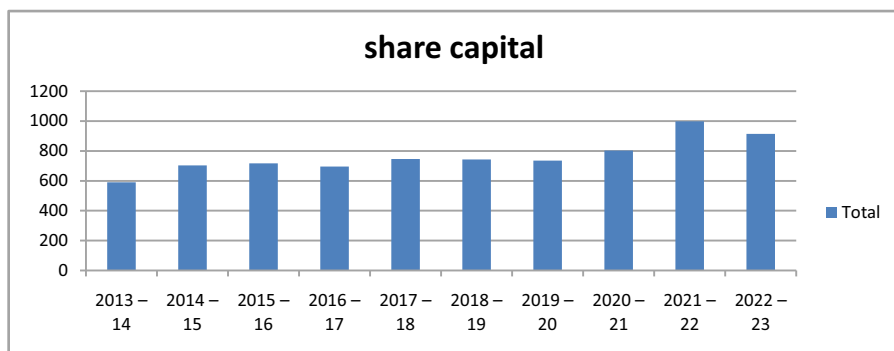
Table1.2
Share Capital Position of the Society

Year	Share	Capital Growth Rate(%)
2013–2014	25.22	-
2014–2015	25.28	0.24
2015–2016	25.21	0.28
2016–2017	25.23	0.08
2017–2018	25.22	0.04
2018–2019	17.98	28.71
2019–2020	17.98	0
2020–2021	17.65	1.84
2021–2022	17.78	0.74
2022–2023	17.78	0

Source: Compiled from the Audit and Annual Reports of the Society.

Above table shows the share capital position of the society for the past ten years. During the year 2013-2014 it was Rs. 25.22 lakhs, further it was been decreased to Rs. 17.78 lakhs during the year 2021-22.

Chart 1.1



Above Chart shows the share capital position of the society for the past ten years. During the year 2013-2014 it was Rs. 5.22 lakhs, further it was been decreased to Rs. 17.78 lakhs during the year 2022-23. A reduction of share capital allow company to reduce its issued capital without the need for each individual share holders consent.

Deposit Collection of the society:

Deposit is an important source of fund to the PACCS for providing less to the members. Effective mobilization of deposits will help the society in reduce the borrowings of the society and also help to avoids pending the amount interest for the borrowings.

Types of Deposits:

- a) Savings Deposit
- b) Fixed Deposit
- c) Cash Certificate
- d) Thrift Deposit

a) Saving Deposit:

Savings Deposit accounts refers to the types of bank account which is opened by the people in order to save a part of the income. The rate of interest is quite nominal in saving deposit accounts.

b) Fixed Deposit:

It is a Deposit of lump sum amount in the bank for a fixed tenure at an agreed rate of interest. At the end of the tenure, the members can received the amount invested and compound interest. Fixed deposits are also called term deposits.

c) Cash Certificate:

Cash certificate has a minimum deposit period of six months and maximum deposit period is 10 years. Interest will be quarterly compounded and reinvested, Interest cannot be withdrawn before maturity of the deposit.

d) Thrift Deposit:

Thrift Deposit is a kind of deposit in the cooperative financial institution to encourage the saving habit among the members. All kind so members are allowed to invest in this deposit.

The PACCS provide short-term, medium-term loans to its members including small and marginal farmers, based on their repaying capacity. Co-operative society, caters in the credit requirements of the agricultural sector through the three-tier structure by providing timely and adequate short-term and medium term finance Loans are advanced not only for land-based production, but also for carrying on subsidiary occupation to agriculture such as poultry, dairy, sheep rearing etc.

Short Term Loan:

Short term loans are provided for a period ranging between 3 months to one year. Such loans are given mostly on the personal security and surety loan on

the basis of immovable properties The short-term loans are given for purchase of seeds, fertilizers, pesticides, for the payment of Labour and power charges etc.

Medium Term Loan:

Medium term loans are provided for a period ranging between one year to three years or even up to five years. Mostly such loans are given on the security of immovable properties. The purpose in for levelling of land, depending of wells, lasing of pipe-line, construction of farm shed, cattle shed etc.,

Lending and Recovery:

The DCCB providing short term and medium term loans to as member societies and individual members. The following loan schemes are offered by the bank,

- Kisan C
- Ash Credit (KCC)
 - o Joint Liability Group (LG)
 - o Agricultural Jewel Loan (AGL)
- Jewel Loan (JL)
- Self

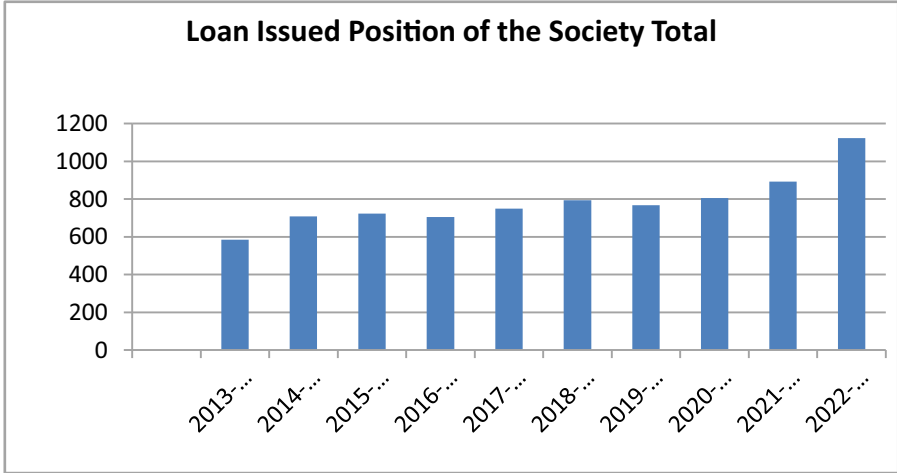
Table 1.3
Loan Issued Position of the Society

Amount in Rs. Lakhs

Year	KCC	AJL	Electric Motor	JL	PaySurety	SHG	Others	Total
2013-2014	2.58	63.09	0.00	511.48	2.90	0.00	4.53	584.58
2014-2015	3.20	65.78	1.98	624.64	3.65	2.34	5.87	707.46
2015-2016	4.10	68.65	3.47	626.67	7.34	3.98	7.87	722.08
2016-2017	3.80	75.87	5.09	596.89	9.45	4.67	8.45	704.22
2017-2018	4.50	78.32	8.09	638.45	6.78	2.56	10.90	74.96
2018-2019	4.91	81.73	0.00	655.75	7.87	1.00	11.68	792.97
2019-2020	-	111.18	2.54	628.07	3.97	2.08	19.10	766.89
2020-2021	1.10	132.06	12.66	608.61	2238	2.00	26.74	805.55
2021-2022	2.58	142.21	14.89	774.84	2721	4.95	36.27	892.55
2022-2023	5.62	257.27	16.52	761.78	3662	6.27	38.67	1122.65

Source: Compiled from the Audit and Annual Reports of the Society.

Above Table Shows that the Loan issued position of the society for the past ten years. During the year 2012-2013 the loan issued position was Rs.584.58 lakhs, further it has increased to Rs.1122.65 lakhs in the year 2021-2022.

Chart 1.2

Above Table Shows that the Loan issued position of the society for the past ten years. During the year 2013-2014 the loan issued position was Rs.584.58 lakhs, further it has increased to Rs.1122.65 lakhs in the year 2022-2023.

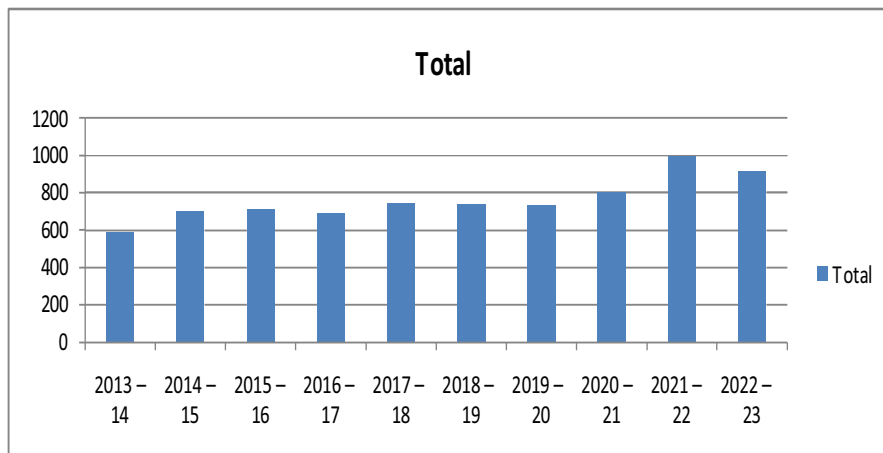
Table1.4**Loan recovery position of the society** Amount in Rs. Lakhs

Year	KCC	AJL	Electric Motor	JL	Pay Surety	SHG	Others	Total
2013-2014	2.58	65.60	0.00	511.45	2.90	2.90	3.89	589.32
2014-2015	3.10	63.70	1.95	624.62	3.32	1.34	4.98	703.01
2015-2016	3.50	65.70	3.45	626.63	7.20	3.30	7.00	716.78
2016-2017	3.80	68.60	5.03	596.80	9.20	4.32	8.00	695.75
2017-2018	4.30	75.80	8.03	638.40	6.50	2.46	9.89	745.38
2018-2019	4.80	78.30	0.00	640.70	7.60	1.00	10.87	743.27
2019-2020	-	81.70	2.50	627.07	3.50	1.87	17.98	734.62
2020-2021	1.05	132.04	12.60	608.60	21.32	1.78	25.46	802.85
2021-2022	2.40	142.15	14.80	774.82	25.78	3.32	34.75	998.02
2022-2023	5.30	257.20	16.52	761.75	33.90	5.89	33.87	914.43

Source: Compiled from the Audit and Annual Reports of the Society.

Table shows the loan recovery position of the society for the past ten years. During the year 2012-2013 the loan recovery position was 589.32 percent, further it has been increased 914.43 percent in the year 2021-2022.

Chart 1.3
Loan Recovery Position of the society



Above chart shows that the Loan issue deposit of the society for the past ten years. During the year 2013-2014 the loan issued position was Rs.584.58 lakhs, further it has increased to Rs.1122.65 lakhs in the year 2022-2023.

Distribution of Respondents by Age:

Sl. No.	Age	No. of Respondents	Percentage (%)
1.	18 – 30	3	15
2.	31 – 40	4	20
3.	41 – 50	5	25
4.	51 – 60	5	25
5.	61 +	3	15

Source: Computed from the Filed Data Collected during APRIL 2023.

shows that age between 18-30 are 15%, 31-40 are 20%, 41-50 are 25%, 51-60 are 25%, 61+ are 15% of Thadicompu PACCS.

Distribution of Respondents by Annual Income:

Sl. No.	Annual Income Rs.	No. of Respondents	Percentage (%)
1.	Less than 50,000	4	20
2.	50,001 – 1,00,000	10	50
3.	Above 1,00,001	6	30
	Total	20	100

Source: Computed from the Filed Data Collected during March 2023

shows that the approximate Annual income above 1,00,001 the person who have the 4 members.

Distribution of Respondents by Borrowing from PACCS:

Sl. No.	Borrowing from PACCS	No. of Respondents	Percentage (%)
1.	Borrowed	20	100
	Total	20	100

Source: Computed from the Filed Data Collected during March 2023.

shows that the people who borrowed in 100% members.

Services and Activities:

1. **Credit facilities:** Loans for agricultural inputs, equipment and other expenses.
2. **Savings mobilization:** Encouraging members to save and deposit funds.
3. **Agricultural extension services:** Training and guidance on best farming practices.
4. **Marketing support:** Assisting members in marketing their produce.

Impact and Achievements:

1. **Increased access to credit:** 80% of members have accessed loans, improving their financial stability.
2. **Enhanced agricultural productivity:** Members have adopted sustainable practices, leading to increased yields and income.
3. **Improved livelihoods:** Members have reported improved economic and social well-being.
4. **Empowerment of women:** Women members have become active participants in decision-making processes.

Findings:

Credit is mainly focused on the agro sector and PACS plays a major role in rural finance. The society provides only short – term and medium – term loans. It supplies short – term credit on the personal security of the borrowers, while medium – term credit is given by charge on their immovable assets. The society provides loans only related to agricultural credit to farmers. Because of lack of awareness among the people about the different schemes of the society. The members deposit money for the purpose of compulsion made by banker to open account. The amount of loan distributed to members were in inadequate time. Use of computer is less in these societies. Deposit mobilization in society is less.

Suggestions:

As society provides loans only related to agricultural credit to farmers it is suggested that it should also provide other types of loans so that it can help the farmers and maintain good standard of living. To improve the deposit mobilization, the society should conduct free awareness programs time to time. This will popularize the farmers relating to different services providing by society. To help the farmers the society should adopt easy procedures for distributing and covering the loan from farmers. To develop self-employment in the rural areas the society should provide training to the rural unemployed people. The adequate amount of loan should be distributed to farmers at adequate time. for speedy and use of computer maintaining mechanize accounting system safely. Society should educate the farmers relating to different services provided by society. The society should provide quality necessary agricultural items at reasonable price to the farmers. The staff member of society should maintain good co- operative relationship with members by providing all information to farmers.

Conclusion:

The study of Thadicombu Primary Agricultural Cooperative Credit Society (PACCS) highlights the crucial role cooperatives play in fostering self-reliance among rural communities. Through financial support, credit access, and resource-sharing, Thadicombu PACCS has empowered local farmers and small entrepreneurs, enhancing their economic stability. The cooperative model promotes collective decision-making, fair resource distribution, and sustainable development. However, challenges such as financial management, market competition, and government policy constraints must be addressed to ensure long-term success. Strengthening governance, adopting modern financial practices, and enhancing member participation can further enhance the effectiveness of PACCS in building self-reliance. The case of Thadicombu PACCS underscores that well-managed cooperatives can be a powerful tool for rural development and economic self-sufficiency.

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Sustainable Business Model to the Farmers: Agricultural Producers Cooperative Marketing Societies (APCMSs) – A Study from Tamil Nadu

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Abstract:

In India, there are broad based struggles are emerging in front of agricultural sector, many concepts are being tried and one of the models was cooperatives. There are number of cooperatives were organised for the socio-economic development of the farming community in the field of agriculture and agricultural allied sector like agricultural credit cooperatives, marketing cooperatives and dairy cooperatives etc. (M. Ragubalan, 2024) The Agricultural Producers Cooperative Marketing Societies (APCMSs) are doing vital role in creating market linkage to the farmer members. The present study is to analyse the APCMSs to assess the sustainability in serving the needs of the farmers.

Keywords:

APCMSs, Sustainability, Farmers' Services, Socio-economic Development.

Introduction:

In India, around 85 per cent of the land belongs to small and marginal farmers and the farming sector provides 56 per cent of employment to Indian labour force. Being unorganized, these farmers are unable to realize right and reasonable value for their agricultural produce. In India, there are broad based struggles are emerging in front of agricultural sector, many concepts are being tried and one of the models was cooperatives. (M. Ragubalan D. A., 2021) The APCMSs are playing a vital role in fulfilling the farmers' needs like right price to their produces, input supply, credit facilities, storage facilities and

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conducting training programmes. The present study is an attempt to analyse sustainability of the select APCMSs in providing needy services to their member farmers.

Objectives of the Study:

- To study the general working of the select APCMSs of the study.
- To analyse the sustainability of the sample institutions in fulfilling the needs of the farmers.

Methodology:

The study was conducted based on the descriptive cum analytical manner by analysing the primary data collected from the farmers members, about their opinion on the services rendered by the sample institutions. The study will covers four APCMSs in the state of Tamil Nadu namely Dindigul Agricultural Producer Cooperative Marketing Society Limited (DAPCMS), Tiruchencode Agricultural Producer Cooperative Marketing Society Limited (TAPCMS), Erode Agricultural Producer Cooperative Marketing Society Limited (EAPCMS) and Perundurai Agricultural Producer Cooperative Marketing Society Limited (PAPCMS). There are 400 members were contacted for the study, 100 member respondents from each sample institution. The collected data were analysed by using SPSS.

Analysis and Results:

The opinion of the member respondents are analysed and presented below. The study concentrates on transparency in the select APCMSs and different kinds of services provided by the APCMSs. The satisfaction level also analysed and discussed to understand the sustainability of the select APCMSs.

Table 1: Transparency in APCMSs

Account Transparent		DAPCMS	TAPCMS	EAPCMS	PAPCMS	TOTAL	Test Statistic
Transparent	N	36	49	92	67	244	$\chi^2 = 9.985$ $df = 3$ $p = 0.019$ $(p < 0.05)$
	%	57.14	49.49	69.17	63.81	61.00	
Not Transparent	N	27	50	41	38	156	
	%	42.86	50.51	30.83	36.19	39.00	
TOTAL		63	99	133	105	400	

Source: Primary Data

Out of the 63 respondents for DAPCMS, 57.14 per cent (36) opinioned it as transparent, while 42.86 per cent (27) found it to be not transparent. For TAPCMS, 49.49 per cent (49) of the 99 respondents considered it transparent, with a close 50.51 per cent (50) rating it as not transparent. EAPCMS had the highest percentage of positive ratings, with 69.17 per cent (92 out of 133) finding it transparent, while 30.83 per cent (41) found it not transparent. PAPCMS was rated transparent by 63.81 per cent (67 out of 105) of the respondents, with 36.19 per cent (38) considering it not transparent. In total, 61 per cent (244 out of 400) of respondents across all APCMSs viewed their respective systems as transparent, while 39 per cent (156) perceived them as not transparent. The chi-square test statistic ($\chi^2 = 9.985$, $df = 3$, $p = 0.019$) reveals a statistically significant difference in the perceived transparency across the four APCMS types, as the p-value is below the 0.05 threshold.

A chi-square test ($\chi^2 = 9.985$, $p = 0.019$) revealed a statistically significant difference in transparency across the four categories, indicating that transparency levels vary significantly between APCMS types, with EAPCMS showing the highest transparency and TAPCMS the lowest.

Table 2: Satisfaction on Credit Facility

Input Quality		DAPCMS	TAPCMS	EAPCMS	PAPCMS	TOTAL	Test Statistic
Satisfactory	N	49	58	83	64	254	$\chi^2 = 2.079$ $df = 3$ $p = 0.556$ $(p > 0.05)^{NS}$
	%	87.50	80.56	86.46	81.01	83.83	
Not Satisfactory	N	7	14	13	15	49	
	%	12.50	19.44	13.54	18.99	16.17	
TOTAL		56	72	96	79	303	

Source: Primary Data

The majority of respondents rated the credit facility as satisfactory, with DAPCMS receiving 87.50 per cent positive opinion, TAPCMS 80.56 per cent, EAPCMS 86.46 per cent, and PAPCMS 81.01 per cent. In total, 83.83 per cent of respondents across all APCMSs rated the credit facility as satisfactory, while 16.17 per cent considered it not satisfactory. A chi-square test ($\chi^2 = 2.079$, $p = 0.556$) revealed no statistically significant difference in credit facility perceptions among the members of the select APCMSs, indicating that the respondents' views on input quality were generally consistent across the different APCMSs.

Table 3: Satisfaction on Input Supply Service

Overall Satisfaction		DAPCMS	TAPCMS	EAPCMS	PAPCMS	TOTAL	Test Statistic
Excellent	N	25	31	48	34	138	$\chi^2 = 2.780$ $df = 6$ $p = 0.836$ $(p > 0.05)^{NS}$
	%	44.64	43.06	50.00	43.04	45.54	
Very Good	N	24	27	35	30	116	
	%	42.86	37.50	36.46	37.97	38.28	
Good	N	7	14	13	15	49	
	%	12.50	19.44	13.54	18.99	16.17	
TOTAL		56	72	96	79	303	

Source: Primary data

The majority of respondents rated the service as excellent, with DAPCMS at 44.64 per cent, TAPCMS at 43.06 per cent, EAPCMS at 50.00 per cent, and PAPCMS at 43.04 per cent. Satisfaction as "Very Good" was reported by 42.86 per cent of DAPCMS respondents, 37.50 per cent of TAPCMS respondents, 36.46 per cent of EAPCMS respondents, and 37.97 per cent of PAPCMS respondents. "Good" ratings were lower, with DAPCMS at 12.50 per cent, TAPCMS at 19.44 per cent, EAPCMS at 13.54 per cent, and PAPCMS at 18.99 per cent. Overall, 45.54 per cent of the member respondents rated the service as excellent, 38.28 per cent as very good, 16.17 per cent reported good. A chi-square test ($\chi^2 = 2.780$, $p = 0.836$) shows no statistically significant difference in satisfaction levels among the APCMSs, indicating that overall satisfaction is relatively similar across the different APCMSs.

Table 4: Satisfaction on Procurement and Marketing Service

Overall Satisfaction		DAPCMS	TAPCMS	EAPCMS	PAPCMS	TOTAL	Test Statistic
Excellent	N	31	42	64	48	185	$\chi^2 = 2.377$ $df = 6$ $p = 0.882$ $(p > 0.05)^{NS}$
	%	72.09	64.62	70.33	66.67	68.27	
Very Good	N	6	8	13	9	36	
	%	13.95	12.31	14.29	12.50	13.28	
Good	N	6	15	14	15	50	
	%	13.95	23.08	15.38	20.83	18.45	
TOTAL		43	65	91	72	271	

Source: Primary data

The majority of respondents rated the service as excellent, with DAPCMS at 72.09 per cent, TAPCMS at 64.62 per cent, EAPCMS at 70.33 per cent, and PAPCMS at 66.67 per cent. Satisfaction as "Very Good" was reported by 13.95 per cent for DAPCMS, 12.31 per cent for TAPCMS, 14.29 per cent for EAPCMS, and 12.50 per cent for PAPCMS. Ratings of "Good" were given by 13.95 per cent of DAPCMS respondents, 23.08 per cent of TAPCMS respondents, 15.38 per cent of EAPCMS respondents, and 20.83 per cent of PAPCMS respondents. Overall, 68.27 per cent of member respondents reported the service excellent, 13.28 per cent as very good, and 18.45 per cent as good. A chi-square test ($\chi^2 = 2.377$, $p = 0.882$) shows no significant difference in satisfaction levels among the APCMSs, indicating that overall satisfaction with procurement and marketing services is relatively consistent across the different companies.

Table 5: Satisfaction on Training Programmes Organized by APCMSs

Satisfaction Level		DAPCMS	TAPCMS	EAPCMS	PAPCMS	TOTAL	Test Statistic
Excellent	N	21	25	27	31	104	$\chi^2 = 1.150$ $df = 6$ $p = 0.979$ $(p > 0.05)$ ^{NS}
	%	53.85	51.02	47.37	51.67	50.73	
Very Good	N	8	8	12	10	38	
	%	20.51	16.33	21.05	16.67	18.54	
Good	N	10	16	18	19	63	
	%	25.64	32.65	31.58	31.67	30.73	
TOTAL		39	49	57	60	205	

Source: Primary data

The majority of respondents rated the programs as excellent, with 21 respondents from DAPCMS, 25 from TAPCMS, 27 from EAPCMS, and 31 from PAPCMS giving the highest rating. In total, 104 respondents rated the training programs as excellent across all APCMSs. The chi-square test result ($\chi^2 = 1.150$, $p = 0.979$) indicates no significant difference in satisfaction levels among the APCMSs, suggesting that overall satisfaction with the training programs is consistent across the different companies.

Discussion:

The analysis show that, in general, respondents have a high level of satisfaction with various services provided by APCMSs, including input supply, procurement and marketing services, and training programs. While

transparency was viewed more positively for some APCMSs, there was no significant difference in input quality and service satisfaction across the different APCMSs. Overall, the APCMSs appear to be performing well in delivering key services. Although transparency levels were generally good, there is room for improvement, especially for TAPCMS and DAPCMS. More consistent and transparent communication practices could further build trust among members. While most respondents rated input quality as good, a continued focus on quality control, particularly for TAPCMS and PAPCMS, will ensure high satisfaction levels. The training programs received positive feedback, but there may be opportunities to diversify training content or increase frequency to engage more members and maintain high satisfaction. Regular feedback from members should be gathered to monitor satisfaction levels and identify areas of improvement in services like procurement, marketing, and training. By focusing on these areas, APCMSs can continue to build strong relationships with their members and enhance the overall effectiveness of their services.

Conclusion:

The research demonstrates that Agricultural Primary Cooperative Marketing Societies are generally effective in providing key services to their members, with high satisfaction levels in areas such as input supply, procurement and marketing services, and training programs. Transparency, while mostly positive, varied significantly among the societies, with EAPCMS receiving the highest ratings and TAPCMS and DAPCMS needing improvement in this area. The study reveals that despite some differences in transparency, overall satisfaction with services like credit facilities and input supply was consistent across the APCMSs. The absence of statistically significant differences in service satisfaction suggests that APCMSs are meeting members' needs fairly uniformly, though there are opportunities for enhancing transparency and diversifying training programs. By addressing these areas, APCMSs can further strengthen trust and satisfaction among members, ensuring their long-term sustainability and effectiveness in supporting agricultural communities

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A Study on the Training Intervention for Transformation of PACS Integrated with the CSC Portal

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Abstract

This study explores the transformation of Primary Agricultural Credit Societies (PACS) into Common Service Centers (CSCs) as part of the Ministry of Cooperation's digitization and capacity-building initiatives under the National e-Governance Plan (NeGP). By integrating PACS into the CSC framework, over 300 e-governance services, including banking, insurance, healthcare, and Government-to-Citizen (G2C) services, are delivered at the village level, fostering inclusivity, operational efficiency, and digital literacy.

The study evaluates the PACS training project, which targeted 30,000 societies across 562 districts, achieving coverage of 30,134 societies. Training sessions by the National Council for Cooperative Training (NCCT) equipped PACS personnel with the skills necessary for effective CSC service delivery. Employing vernacular approaches and hands-on modules ensured accessibility and practical learning. The analysis of district coverage, gender participation, and social category representation revealed significant achievements but highlighted inclusivity challenges. Women accounted for only 13.21% of participants, with Tamil Nadu showcasing exemplary gender inclusivity (74.44%). Social representation showed dominance of Other Backward Classes (45.04%) and General Category (39.93%), while Scheduled Castes and Tribes were underrepresented.

Addressing regional disparities, tailored interventions are recommended to enhance inclusivity, infrastructure, and outreach. This paper underscores the transformative potential of PACS-CSC integration, contributing to e-governance literature and providing actionable insights for equitable rural service delivery.

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Key Words:

CSC, VLE, PACS, Training Intervention and Digital Transformation

1. Introduction:

The Government of India has formulated the National E-Governance Plan (NeGP) with the vision of providing all government services in an integrated manner at the doorstep of the citizen, at an affordable cost. The NeGP initiatives consist of 26 Central, State and Integrated Mission Mode Projects (MMPs) along with 8 other support components for rapid introduction of e-governance in the country. The NeGP envisions a three pillar model for delivery of “web-enabled Anytime, Anywhere access” to information and services in rural India. The three pillar model is: a) Connectivity: State Wide Area Networks (SWANs)/NICNET; b) National Data Bank/ State Data Centers (SDCs) and c) Common Services Centers (CSCs)

The CSC Scheme, as approved by the Government of India, envisions to develop a platform that can enable Government, private and social sector organizations to align their social and commercial goals for the benefit of the rural population in the remotest corners of the country through a combination of IT-based as well as non-IT-based services. Thus, the CSCs is positioned as a Change Agent and front end delivery point that would promote rural entrepreneurship, build rural capacities and livelihoods, enable community participation and collective action for social change - through a bottom-up model with focus on the rural citizen. Undertaking such a mammoth task calls for active participation and close interaction amongst various stakeholders such as State Governments, local bodies, opinion makers and agencies/ institutions involved or having interest, commercial or otherwise, in rural areas/ markets. Under the CSC Scheme, a Public Private Partnership (PPP) model has been proposed for undertaking this challenging task and addressing the related issues in the most effective way.

In the implementation plan of CSC Network, the framework adopted has been as follows:

- a) At the first (CSC) level would be the local Village Level Entrepreneur (VLE) - A franchisee, to service the rural consumer in a cluster of 5-6 villages.
- b) At the second/middle level would be an entity termed the Service Centre Agency (SCA) - a franchiser, to operate, manage and build the VLE network and business. SCA would be identified for one or more districts (one district would cover 100-200 CSCs).

- c) At the third level would be the agency designated by the State- the State Designated Agency (SDA) - to facilitate implementation of the Scheme within the State and to provide requisite policy, content and other support to the SCAs.

DIT would be appointing a National Level Service Agency (NLSA) to enable the State-specific implementation plans to benefit from such economies of scale, aggregation of best practices, content providers, etc. There are significant challenges in exploiting opportunities to achieve economies of scale in the identification, customization and implementation of the physical and digital infrastructure required for the project. Further, many of the potential citizen-centric services would lend themselves to aggregation at the national level. In addition to the NLSA The Special Purpose Vehicle (SPV) has been proposed for the day-to-day monitoring of the CSC Scheme, in terms of channeling Government support, content aggregation, etc.

The SCA would be the prime driver of the whole CSC eco-system and would be supported by the NLSA and the respective SDA to implement the CSC Scheme in their specified areas of operations. This could include activities such as identifying the required applications and services, harnessing the State Wide Area Network, identifying, selecting and training the VLE, establishing the CSC (either directly or through the VLE), supplying, aggregating and updating content.

As the existing kiosks models are on a small scale, building 100,000 rural businesses in hitherto untapped and unchartered areas of the country, besides promoting rural entrepreneurship and involving community participation as its success or failure of the CSC Scheme hinges to a large extent on the business and financial capabilities of the SCA. The CSC Scheme at the scale it is proposed to be implemented may pose a variety of complex new issues in terms of financing, channel management, technology, integration with local community, etc. that may put the CSC network at risk, if not supported by a committed and financially strong SCA with adequate experience of working with rural communities. Consequently, the selection of the right SCA assumes significant importance for the State. It is therefore recommended that the selection of the SCAs should be undertaken with adequate care and caution, with appropriate support from the NLSA and DIT.

The quality of service at the CSCs would depend on the selection, proper training, content, services, quality and entrepreneurial ability of VLEs; those are vital in making the CSC scheme a success and ensure its sustainability.

A good VLE is expected to have some financial strength, strong social commitment as well as respect within the community.

2. Integration of PACS in to the CSC Portal –A Significant Initiative of Ministry of Cooperation:

The Computerization of PACS Project (₹2,516 Crore) integrates functional PACS into ERP-based common national software to improve operational efficiency, transparency, and uniformity. Proposals for 67,930 PACS have been sanctioned, with ₹699.89 Cr. released to States/UTs and ₹165.92 Cr. to NABARD. The ERP system covers modules like loan disbursement, procurement, PDS operations, asset management, and business planning, supported by a Common Accounting System (CAS) and Management Information System (MIS). System Integrators (SIs) and the National Level PACS Software Vendor (NLPSV) facilitate data digitization and technical training for PACS, enabling them to undertake diversified business activities, improve efficiency, and achieve economic sustainability.

These has enabled Primary Agricultural Credit Societies (PACS) to function as Common Service Centres (CSCs) and are equipped to deliver over 300 e-governance services such as banking, insurance, healthcare, and G2C services. Supported by a MoU between the Ministry of Cooperation, Ministry of Electronics & IT, NABARD, and CSC e-Governance Services India Ltd, 40,214 PACS have adopted CSC services as of November 2024. To ensure effective implementation, training and capacity-building workshops are organized by NCCT and CSC e-Governance Services India Ltd, enhancing PACS personnel's skills and promoting digital literacy. PACS serve as nodal centres for citizen-centric services at the Panchayat/village level (PIB Delhi). This initiative is also expected to foster greater transparency in the functioning of PACS, thereby enhancing public trust in these institutions. By leveraging digital platforms and ensuring seamless service delivery, PACS can build credibility among rural communities, strengthening their role as reliable and trustworthy entities in the cooperative ecosystem.

3. Review of Literature:

Meenakshi R. and Supriya B. from the Institute for Social and Economic Change, Bangalore, in their working paper “Women Online: A Study of Common Service Centers in India Using a Capability Approach,” critically evaluate the transformative potential of Common Service Centers (CSCs) as online platform-based entrepreneurial initiatives, focusing on women-led

enterprises. Using a capability approach and case study methodology, the authors analyze the inputs, capabilities, and conversion factors that influence the success of women-run businesses on the CSC platform. The study highlights a significant correlation between regional gender inequality and the adoption of information and communication technology (ICT), revealing that states with higher gender inequality experience lower ICT usage by women-led enterprises. Their findings provide valuable insights into the intersection of gender, entrepreneurship, and digital platforms, emphasizing the socio-economic and structural factors that shape the adoption and success of ICT-driven initiatives (*Meenakshi & Supriya, 2022*).

The Common Service Centre (CSC) scheme, introduced as part of the National e-Governance Plan (NeGP) in 2006, has been presented as a significant initiative within the good governance paradigm. The scheme is conceptualized as a two-fold strategy: revamping front-end public service delivery systems while simultaneously promoting rural entrepreneurship and job creation. As one of the thirty-one Mission Mode Projects under the 'Digital India' program, the philosophy behind CSCs aligns with Niti Aayog's Action Agenda, which highlights privatization as a policy solution to address inefficiencies and corruption in service delivery of basic public goods. Intrinsic to this framework is the Aadhaar architecture, which facilitates the digitization of government schemes such as certificates, licenses, and other essential services. The operationalization of this concept involves private individuals, termed Village Level Entrepreneurs (VLEs), who manage these centers to provide digital services at the village level (*Sabhihi, 2017*).

Research conducted on CSCs has sought to evaluate their status, functions, and impact on VLEs and their customers. Studies reveal that services such as mobile recharges, online results, Aadhaar seeding, and Aadhaar prints are among the most frequently delivered and in-demand services. VLEs have reported improvements in income, skill enhancement, and elevated social status, while customers have benefitted from cost and time savings, as well as improved access to internet-enabled services. However, challenges persist, including inadequate support from government officials, slow updates of new services, and lack of technical awareness and skills among customers. Recommendations emphasize the need for active monitoring teams to evaluate stakeholder performance, along with targeted training and awareness programs to optimize the utilization of CSCs (*Victoria Devi, Devarani, & Josmee Singh, 2018*) (*Victoria Devi, Devarani, & Josmee Singh, 2018*).

The Information Technology (IT) sector has significantly contributed to India's position as a global hub for IT and IT-enabled Services (IT-ITeS). Given continuous advancements in technology, the Government of India (GOI) has proactively applied IT innovations to bridge the rural-urban divide. E-governance has emerged as a transformative tool for delivering public services to citizens and businesses, with a focus on rural development. The CSC-based service delivery model is recognized as a major initiative in this context. Under the NeGP, the government aimed to establish 1,00,000 CSCs across India, particularly at the Gram Panchayat level, leveraging a Public-Private Partnership (PPP) model. CSCs are envisioned as front-end e-kiosks that provide a diverse range of government and non-government services at a single location, thereby enhancing rural accessibility (Ryhan, 2013) (*Ryhan, 2013*).

A pivotal aspect of e-governance is the role of Information and Communication Technology (ICT), which has the potential to transform rural India into a knowledge-based society. ICT has already demonstrated its transformative impact on industries and businesses, and its application in rural governance is anticipated to yield similar results. The NeGP, implemented through a public-private partnership, focuses on two core strategies: connectivity and content, alongside service delivery through CSCs. The institutional structure includes a National Level Service Agency (NLSA) and a Special Purpose Vehicle (SPV) at the national level, while State Designated Agencies (SDAs) and Service Centre Agencies (SCAs) operate at the state level to establish and support CSCs at the Panchayat level. Initially, one CSC was designated to serve 6-7 villages; however, the revised plan now aims to establish one CSC for every 2-3 villages. Village Level Entrepreneurs (VLEs), primarily local youth, are tasked with operating CSCs to deliver both Government-to-Citizen (G2C) and Business-to-Citizen (B2C) services (Nair & Jha, 2016) (*Nair & Jha, 2016*).

Further, Common Service Centre e-Governance Services India Limited has partnered with public and private sector organizations to enhance the scope of financial, educational, health, and other essential services. The sustainability of this e-governance initiative hinges on meeting the demand for key e-services in remote areas and ensuring the viability of VLEs, who serve as the backbone of service delivery. Research indicates that entrepreneurial success of VLEs depends on intrinsic traits such as demographics, literacy, prior work experience, and entrepreneurial perception, which are influenced by external factors such as infrastructure and environmental support. Strategies employed

by VLEs in delivering services also emerge as significant determinants of their performance, as these strategies are shaped by their intrinsic traits. Consequently, the performance of CSC operations and their impact on local communities are driven by both internal and external factors (ISB) (ISB).

Studies specific to the Odisha State, particularly in the Rayagada district, highlight the role of CSCs in catering to the needs of citizens for electronic delivery of government services. Rayagada, a tribal-dominated district located far from the state capital, has limited available literature on the efficacy of CSCs. Research evaluating the influence of CSCs in rendering e-governance services to rural citizens emphasizes the significant role of these centers in providing affordable, hassle-free services at the village level. By reducing the need for physical visits to government offices, CSCs have improved service accessibility, although challenges remain in terms of awareness and infrastructure support (Sahoo, Patra, & Dasarath, 2020) (*Sahoo, Patra, & Dasarath, 2020*).

Overall, the literature emphasizes the potential of CSCs as a transformative initiative under e-governance. The studies collectively highlight the role of VLEs, the benefits accrued by customers, and the challenges faced in the operational framework. Key themes include the need for institutional support, active monitoring, infrastructural upgrades, and capacity-building programs to enhance the performance and sustainability of CSCs in delivering both government and non-government services.

4. **Significance of the Study:**

The transformation of Primary Agricultural Credit Societies (PACS) into Common Service Centers (CSCs) represents a groundbreaking development, particularly following the recent initiatives by the Ministry of Cooperation, Government of India. These initiatives have empowered PACS to function as Village Level Entrepreneurs (VLEs), enabling them to deliver over 300 e-governance services, including banking, insurance, healthcare, and various Government-to-Citizen (G2C) services.

Despite the growing significance of PACS in this expanded role, there remains a notable paucity of scholarly research on their functioning as VLEs. While several studies have explored the operations of CSCs in general, the specific dynamics, challenges, and opportunities associated with PACS in this capacity have yet to be thoroughly examined. The present study seeks to address this critical gap, offering valuable insights and serving as a foundational reference for future research in this emerging domain.

5. **Objectives of the Study:**

- a) To examine the significance and potential impact of integrating PACS into the CSC framework.
- b) To evaluate the overall achievements of the training intervention in transforming PACS integrated with the CSC platform.
- c) To conduct a detailed state-wise analysis of the training project's performance, highlighting regional differences in implementation.
- d) To analyze the key outcomes and long-term prospects of the training project on the transformation of PACS into Common Service Centers.

6. **Modes Operandi of the Training Project for Transformation of PACS Integrated with the CSC Portal:**

a) **Need for and Objective of Training to CSC Operators of PACS:**

There was a low level of awareness among PACS and their members regarding Government of India (GOI) schemes, resulting in poor uptake and limited participation in these schemes. This highlighted the need for PACS-centric, customized capacity-building and training programs. It was recognized that PACS that were on-boarded into the CSC Portal required training and sensitization to understand the importance of business transformation, enabling them to serve as Common Service Centers. The training focused on how PACS could provide multiple services to their members and how they could secure financing to undertake these services.

The training aimed to increase the relevance and outreach of PACS, transforming them into one-stop shops for villagers by catering to their diverse needs and boosting their reliance on the cooperative system. The training focused on developing the capacity and skills of PACS staff for the delivery of CSC services. The training provided access to digital tools and platforms, helping PACS improve their operational efficiency.

b) **Agencies Involved:**

Ministry of Cooperation (MOC): The Ministry of Cooperation, Government of India, was responsible for strengthening the cooperative movement across the country, promoting a cooperative-based economic development model, and creating a conducive policy, legal, and institutional framework to help cooperatives realize their potential.

CSC e-Governance Services India Limited (CSC-SPV): Incorporated under the Companies Act, 1956, operated as a Special Purpose Vehicle (SPV)

to support the Common Service Centre network. It served as an integrated service delivery channel for transmitting public and private services, information, and knowledge to citizens and enterprises.

NCCT Mandate as Training Partner: The National Council for Cooperative Training (NCCT) is an autonomous society registered under the Societies Registration Act, 1860, and is promoted by the Ministry of Cooperation, Government of India. NCCT's role included organizing, directing, monitoring, and evaluating cooperative training programs across the country. The main objective was to organize need-based training programs and foster human resource development within cooperatives. The Council also focused on conducting research in key areas of the cooperative movement. NCCT, through its wide network of Institutes of Cooperative Management (ICMs) and regional institutes, had the expertise to design and deliver training that would build the capacity of PACS and help them transition into multiservice cooperatives. This initiative also aimed to create awareness about various GOI developmental schemes among PACS leadership, including Presidents, Vice-Presidents, and Secretaries.

7. Components of the Training:

The training program for PACS (Primary Agricultural Credit Societies) that had been activated onto the CSC Portal (Annex – 1) was conducted by the Training Units of NCCT. The training specifically targeted Secretaries, CEOs, or Computer Operators from each PACS, with one trainee selected from each category per PACS. Over a period of three months, 30,134 participants were trained across various locations consisting of 562 districts through 645 batches; against the target of 30000. The detailed statistics are provided in the Annexure.

The training sessions were held at local Computer Training Centres, ensuring that participants received hands-on training in systems, along with practical exercises designed to reinforce learning. The program offered intensive sessions aimed at enhancing both technical proficiency and operational understanding. Additionally, knowledge-sharing sessions were included to foster collaborative learning among participants.

To accommodate the diverse linguistic needs of the trainees, all training programs were conducted in vernacular languages, ensuring accessibility for participants across different regions. The training covered an extensive range of over 300 services and products available through the CSC Portal, which was crucial for transforming PACS into efficient and multifunctional Common Service Centres.

A common banner was designed and utilized for the training program, ensuring uniformity and recognition across all sessions. This comprehensive approach was intended to empower PACS staff with the necessary skills and knowledge to successfully deliver services to their members and facilitate the transformation of PACS into effective Common Service Centres.

8. Analysis of Overall Performance of the Training Project:

The data highlights the performance metrics of training and outreach programs aimed at equipping CSC Operators of Primary Agricultural Credit Societies (PACS) with essential skills through one-day training sessions. The program demonstrates commendable success, surpassing its targets in key areas. A total of 30,134 PACS were included, exceeding the initial target of 30,000 by 134 PACS. Similarly, 645 training batches were conducted against a target of 600, reflecting an additional 45 batches, showcasing the program's effective outreach and commitment to achieving its goals.

The initiative covered an impressive 562 districts, indicating extensive geographical outreach and inclusivity. In terms of gender participation, male participants dominated the training sessions with 26,154 individuals, accounting for 86.79% of the total, while female participants numbered 3,980, representing 13.21%. Although male representation was significantly higher, the inclusion of nearly 4,000 women is a step toward promoting gender inclusivity in PACS operations.

An analysis of participants by category reveals a diverse representation. The majority belonged to the Other Backward Classes (OBC) category, with 14,089 participants (45.04%), followed by the General category with 12,492 participants (39.93%). Scheduled Castes (SC) and Scheduled Tribes (ST) accounted for 2,171 (6.94%) and 1,382 (4.41%) participants, respectively. This distribution underscores the program's effort to engage individuals across various socio-economic backgrounds, reflecting its commitment to equity and diversity.

The state-wise analysis of PACS training and outreach programs provides valuable insights into regional performance, gender participation, and social diversity. Among the top-performing states, Uttar Pradesh achieved 4,029 PACS, attaining 90.54% of its target of 4,450. With coverage across 75 districts, the highest in the country, participation was overwhelmingly male-dominated, with 3,921 male and only 108 female participants. Tamil Nadu, another high performer, exceeded its target by achieving 4,202 PACS against a target of 3,800. Remarkably, Tamil Nadu reported the highest female

participation, with 2,948 females (74.44% of total participants), reflecting a significant gender balance. In Rajasthan, 3,928 PACS were achieved (90.29% of the 4,350 target), with 31 districts covered, yet participation remained predominantly male, with 3,866 males and only 62 females. Maharashtra surpassed its target by achieving 3,817 PACS (109.06% of the target), with balanced district coverage across 31 regions and significant representation from the general category (1,904 participants). Meanwhile, Bihar achieved 2,040 PACS, meeting 90.67% of its 2,250 target, covering 33 districts, but with a similarly male-dominated turnout (1,906 males versus 134 females).

The states with high female participation offer notable insights. Tamil Nadu emerged as the leader in female involvement, with women comprising 74.44% of its participants, followed by Karnataka with 97 females (9.02%) and Uttar Pradesh with 108 females (2.75%). This highlights varying levels of gender inclusivity, with some states actively bridging the gender gap while others lag behind.

Underperforming states revealed specific challenges. For instance, Tripura achieved 161 PACS, exceeding its target of 150 (107.33%), but its training coverage was limited to only four districts, with male participants dominating (156 males). Similarly, Meghalaya surpassed its target by achieving 58 PACS (116% of the target) but had minimal district coverage, limited to three districts. However, Meghalaya showed a strong representation of Scheduled Tribes (ST), with 57 participants, reflecting the socio-demographic composition of the region. Puducherry, on the other hand, fell significantly short, achieving only 24 PACS against a target of 50 (48%), with training confined to a single district and negligible female participation (6 females).

Diversity observations underscore the predominance of the General and OBC categories, comprising 39.93% and 45.04% of participants, respectively. States like Odisha and Gujarat displayed a more balanced representation across categories, while Meghalaya stood out for its high ST participation. These patterns highlight the varying socio-economic dynamics and inclusivity levels across states.

9. Outcome of the Training Project:

a) Achievement of Training and Outreach Targets:

The PACS program successfully surpassed its training and outreach goals by achieving 30,134 PACS trained, exceeding the target of 30,000, and conducting 645 training batches, surpassing the target of 600. The program also reached 562 districts across India, demonstrating the expansive scale of

the initiative. This outcome highlights the program's strong implementation and ability to scale, reflecting effective management and widespread reach. However, while the quantitative targets were met, the findings indicate significant gaps in gender and regional representation that must be addressed in future iterations to ensure more inclusive outreach.

b) Gender Disparity and Female Participation:

The gender breakdown revealed that males comprised 86.79% of participants, while females represented only 13.21%. However, Tamil Nadu emerged as a standout performer in gender inclusivity, with 2,948 females (70% of participants) engaging in the program. The dominant male participation underscores a significant gender disparity in the PACS program. This calls for targeted interventions to encourage greater female participation, particularly in states where male participation is predominant. The success of Tamil Nadu suggests that gender-focused initiatives and awareness campaigns can lead to increased female involvement, which should be modeled in other regions.

c) Social Category Representation:

The program saw a high representation of OBC participants (45.04%), followed by General (39.93%), SC (6.94%), and ST (4.41%). States like Gujarat and Odisha exhibited more balanced category participation. While OBC and General Categories dominate, the underrepresentation of SC and ST participants suggests the need for tailored outreach to these marginalized groups. States like Gujarat and Odisha, with balanced category representation, provide valuable insights into how more equitable participation can be achieved through strategic planning and targeted engagement.

d) Regional Performance Disparities:

Northern and Southern states like Uttar Pradesh and Tamil Nadu showed exceptional performance in terms of PACS coverage and district outreach, while Northeastern states like Tripura and Meghalaya exhibited limited district coverage despite achieving their PACS targets. The regional disparities in performance highlight infrastructural and logistical challenges in certain areas. To bridge these gaps, the program could benefit from region-specific strategies, such as improving access to training resources in underserved regions, strengthening local governance partnerships, and providing logistical support for better district outreach.

e) Underperforming States and Limited District Coverage:

Puducherry achieved only 48% of its target with minimal female involvement.

States like Tripura and Meghalaya, despite achieving their targets, had limited district coverage and low overall participation. The performance of these states underscores the need for enhanced outreach and stronger program implementation. The low district coverage in these states suggests that local barriers, such as lack of infrastructure or awareness, may be hindering effective participation. Future programs should prioritize increasing district coverage, particularly in smaller states or regions with low participation.

f) Diversity and Socio-Cultural Context:

Meghalaya stood out with a notable representation of ST participants (57 participants), underscoring the importance of socio-cultural context in shaping participation patterns. Meghalaya's focus on ST participants highlights the need to recognize and address the unique needs of different social and cultural groups. Tailoring outreach efforts to specific regional contexts, such as emphasizing ST participation in tribal regions, can enhance the inclusivity of the program.

10. Summary of Findings:

The findings from the PACS training and outreach programs highlight significant achievements alongside critical regional and demographic insights. Overall, the program exceeded its targets by training 30,134 PACS against a goal of 30,000, and conducting 645 training batches, surpassing the target of 600. With coverage spanning 562 districts across India, this initiative underscores the extensive scale and reach of the program. Gender participation, however, revealed a stark disparity, with males constituting 86.79% of participants, compared to only 13.21% females. In terms of social categories, OBC participants led the representation with 45.04%, followed by General (39.93%), SC (6.94%), and ST (4.41%).

Among the top-performing states, Uttar Pradesh stood out with the highest number of PACS achieved (4,029) and the most extensive district coverage (75 districts). Tamil Nadu, in addition to surpassing its target with 4,202 PACS, recorded the highest female participation, with women comprising 2,948 participants—a significant outlier in gender inclusivity. Rajasthan, with 3,928 PACS achieved, and Maharashtra, surpassing its target with 3,817 PACS, demonstrated strong performance, albeit with predominantly male participation. Bihar also performed well, achieving 90.67% of its target with notable district coverage.

While Tamil Nadu excelled in promoting female inclusivity, the overall trend across states was male-dominated participation, revealing a gender imbalance

that requires targeted interventions. Underperforming states like Puducherry, achieving only 48% of its target with minimal female involvement, and Tripura and Meghalaya, despite achieving their targets, suffered from limited district coverage and low participation levels. Notably, Meghalaya demonstrated significant ST representation, highlighting the socio-cultural context of the region.

Diversity observations revealed the dominance of General and OBC categories in participation, with states like Gujarat and Odisha showcasing a more balanced representation across categories. Regional insights further illuminated a performance divide, with Northern and Southern states such as Uttar Pradesh and Tamil Nadu excelling in PACS coverage and training, while Northeastern and smaller states lagged in both coverage and participation.

These findings collectively emphasize the program's successes in achieving and surpassing quantitative targets while exposing critical gaps in gender and regional inclusivity. Addressing these disparities through tailored strategies, especially in underperforming regions and among marginalized groups, will be essential for optimizing the impact and equity of future PACS training and outreach initiatives.

11. Conclusion and Recommendations:

Overall, the program's performance metrics illustrate its effectiveness in training CSC Operators of PACS and its substantial contribution to enhancing capacity building and inclusivity. These outcomes lay a strong foundation for further initiatives aimed at empowering PACS and promoting financial and digital literacy in rural areas. In summary, the analysis illustrates both the successes and disparities in the implementation of PACS training programs across India. While certain states like Tamil Nadu and Maharashtra demonstrate exemplary performance and inclusivity, others face challenges in achieving balanced participation and regional coverage. These findings offer critical insights for tailoring future initiatives to address regional disparities and enhance inclusivity in PACS operations.

The PACS training and outreach program has achieved significant milestones in terms of reaching quantitative targets, including coverage of over 30,000 PACS and 562 districts. However, the findings highlight critical gaps in gender and regional inclusivity. To enhance the program's effectiveness, it is essential to focus on increasing female participation, expanding outreach in underperforming states, and ensuring more balanced representation across

social categories. Tailored interventions that account for regional, socio-cultural, and gender-specific challenges will be crucial in optimizing the program's impact and equity in future initiatives.

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Sr. No	State	Target		Achieved		No. of Districts Covered	Gender		Category			
		No. of PACS	No. of Training Batch	No. of PACS	No. of Training Batch		Female	Male	General	OBC	SC	ST
1	TAMIL NADU	3800	76	4202	60	38	2948	1254	1488	2128	566	20
2	BIHAR	2250	45	2040	56	33	134	1906	768	1174	78	20
3	RAJASTHAN	4350	87	3928	85	31	62	3866	1022	2275	286	345
4	UTTAR PRADESH	4450	89	4029	96	75	108	3921	1851	1911	259	8
5	GUJARAT	1550	31	1350	32	33	27	1323	677	461	18	194
6	JHARKHAND	950	19	754	24	24	25	729	118	419	36	181
7	HIMACHAL PRADESH	600	12	522	12	7	51	471	366	103	47	6
8	ODISHA	500	10	445	10	27	29	416	111	268	30	36
9	ASSAM	550	11	541	18	33	30	511	231	171	35	104
10	JAMMU & KASHMIR	400	8	417	10	18	35	382	371	19	8	19
11	TRIPURA	150	3	161	4	8	5	156	58	53	25	25
12	TELANGANA	350	7	380	8	25	14	366	97	216	53	14
13	MAHARASHTRA	3500	70	3817	70	31	117	3700	1904	1627	201	85
14	HARYANA	150	3	164	4	17	1	163	105	54	5	0
15	ANDHRA PRADESH	1600	32	1812	30	12	96	1716	960	690	146	16
16	PUNJAB	700	14	773	25	23	27	746	611	88	68	6
17	MADHYA PRADESH	1900	38	2180	49	37	70	2110	756	1159	131	134
18	CHHATTISGARH	650	13	754	16	19	14	740	46	607	55	46
19	MEGHALAYA	50	1	58	3	8	11	47	1	0	0	57
20	UTTARAKHAND	500	10	581	10	13	65	516	434	93	43	11
21	KARNATAKA	950	19	1148	19	27	97	1051	496	537	76	39
22	PUDUCHERRY	50	1	24	1	2	6	18	4	19	1	0
23	WEST BENGAL	50	1	27	1	12	2	25	14	8	4	1
24	MIZORAM	0	0	11	1	6	2	9	0	0	0	11
25	SIKKIM	0	0	16	1	3	4	12	3	9	0	4
	Grand Total	30000	600	30134	645	562	3980	26154	12492	14089	2171	1382

Factors Influencing Membership Engagement in Primary Cooperative Societies in Rural Ethiopia

R. Karunakaran*, Mitiku Hassen Lalima**

Abstract:

This study aims to evaluate the factors determining member participation in the activities of primary multipurpose cooperatives in Hula Woreda (District), Southern Sidama Zone, Ethiopia. The researcher utilized both primary and secondary data sources. Primary data were gathered from four selected primary multipurpose cooperatives (PMCs) using a simple random sampling method. From a total of 308 members, 174 respondents were chosen through the Yamane simplified formula. The analysis involved descriptive statistics, including percentages, and inferential statistics such as the ordered logit model, with data processed using SPSS version 27. Members' engagement was categorized into three distinct levels: low, medium, and high. These classifications were determined by their corresponding participation scores: 85.8% classified as low, 9.3% as medium, and 4.9% as high. The findings revealed low participation levels attributed to factors such as limited access to improved agricultural inputs, low productivity, weak connections with cooperative agents, lack of involvement in decision-making, negative perceptions of output prices, and insufficient training opportunities. Ordered logistic regression analysis identified eight significant predictors of member participation. Of these, five factors viz., education, membership duration, access to agricultural inputs, training availability, and information flow—positively influenced participation. In contrast, three factors namely family size, distance to the cooperative center, and suspicions of corruption negatively affected participation. To enhance member engagement, the Woreda government and cooperative development office are advised to provide access to improved agricultural inputs and fertilizers, along with

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promoting training and education for both managers and members, thereby offering essential technical support and oversight.

Keywords:

Agricultural inputs, Member participation, Ordered logistic regression, Training opportunities

Background and Problem Statement:

In the 2022/23 fiscal year, Ethiopia's economy experienced a growth rate of 7.1%, an increase from the 6.4% growth recorded in the 2021/22 fiscal year. This expansion was primarily driven by a 7.9% increase in the services sector, constituting 40% of the country's Gross Domestic Product (GDP). The industrial sector, making up 28% of GDP, saw a growth of 6.9%, while agriculture, which represents 32% of GDP, grew by 6.3%, contributing to the overall economic development (African Bank Development Group, 2024). Acknowledging the vital role agriculture plays in both the livelihoods of its citizens and the overall economy, the Ethiopian government has consistently emphasized the significance of agricultural transformation to reduce poverty, promote economic growth, and ensure environmental sustainability. As of December 24, 2024, Ethiopia's population is 133,684,301, with approximately 77.9% living in rural areas (Worldometer, 2024). Primary farmers' multipurpose cooperatives are crucial in promoting rural development within this agricultural sector.

These cooperatives help farmers tackle collective action issues, especially in efficiently sourcing essential inputs for crop production and livestock farming, as well as obtaining more favorable conditions for the transportation and marketing of their goods than they would accomplish on their own (Natarajan et al., 2015).

Efficient multipurpose cooperatives usually provide vital support to their members by facilitating the procurement and distribution of inputs, offering specialized agricultural advisory services, marketing produce, and managing the distribution of excess resources. Currently, primary multipurpose cooperative societies serve as the main channel for delivering agricultural inputs to farmers. While farmers' multipurpose cooperative societies currently account for less than 20% of marketed outputs, their influence on prices is substantial with members enjoying a premium of nearly 10% above what they would receive through individual sales. This disparity underscores the benefits of collective marketing efforts, as cooperatives enable farmers to negotiate better prices due to their aggregated bargaining power (ATA, 2016).

Currently, the Ethiopian government is actively working towards achieving the sustainable development goals established for 2030, in line with its second growth and transformation plan. Agricultural multipurpose cooperatives play a crucial role in these efforts by helping to alleviate poverty through improved access to training, job creation, and environmental protection, all of which contribute to the sustainable development of the agricultural sector. Additionally, these cooperatives offer essential farm inputs to enhance productivity and facilitate market access, allowing members to buy inputs and sell their produce at cooperative centers. This approach minimizes transaction costs for members. Furthermore, cooperatives provide various services, such as training, education, and credit, aimed at enhancing the skills and economic capacity of their members (*Gashawu et al., 2015*).

Although the contribution of primary multipurpose cooperatives to the socio-economic development of member patrons is crucial and evident, members' participation which is the fulcrum of the growth and development of cooperatives is found to be low. Participation serves as a key metric for gauging members' comprehension of their cooperative's structure. It entails active involvement in various activities by all members, which is essential for the cooperative's success and distinguishes it from other business models.

A study conducted by *Alema (2008)* analyzed the role of cooperatives in agricultural input and output marketing in the Southern Zone of Tigray, Ethiopia. It found that factors such as land ownership, shareholding, proximity to cooperatives, output prices, membership in other cooperatives, and seed prices significantly and positively influenced the participation of cooperative members in agricultural marketing activities. Similarly, *Kirub (2008)* focused on member participation in the Awabel multipurpose farmers' cooperatives union and its affiliates in the Amhara region of Ethiopia. Utilizing a binary logistic regression model, the study identified key factors affecting member participation, including education level, satisfaction with cooperative management, effectiveness of the cooperatives, size of cultivated farmland, amount of farm inputs used, duration of membership, and distance to local markets.

A study, conducted by *Muthyalu (2013)*, investigated the factors that influence the participation of cooperative members in agricultural input and output marketing in the Adwa District of Ethiopia. The researcher employed a binary logistic regression model to examine the determinants of household participation in cooperative activities. The results revealed that age, households' perception of changes in living standards due to cooperative

membership, membership in other cooperatives, shareholding, land ownership, distance to the cooperative office, and perceptions regarding fertilizer pricing significantly affected participation among cooperative members. Similarly, Dejene (2014) examined the financial performance of primary multipurpose agricultural cooperatives and the factors influencing member participation in the Becho district of Oromia.

Numerous studies have explored various critical aspects influencing members' participation in farmers' multipurpose cooperatives in Ethiopia. However, there has been insufficient focus on members' engagement and perceptions regarding services such as price stabilization, market information dissemination, transportation services, training programs, and agricultural innovation offered by these cooperatives, as opposed to simply examining specific input and output marketing. Moreover, there is a lack of up-to-date, reliable, and comprehensive data concerning members' participation in primary multipurpose cooperatives (PMCs) within the study area.

Objectives of the study:

The study has the following specific objectives:

1. To assess the level of member participation in management and business affairs of PMCs
2. To analyze the level of satisfaction of members on the services of PMCs.
3. To identify the major factors determining the members' participation in PMCs.

Scope of the study:

Thematically, the study was focused on assessing the factors influencing members' participation in the activities of Primary Farmers' Multipurpose Cooperatives (PMCs). Geographically, the research was conducted exclusively in Hula Woreda, located in the Southern Sidama Zone of the Sidama National Regional State in Ethiopia. This area was selected for its accessibility to the researcher. Methodologically, the study employed both a descriptive research design and a mixed-methods approach, combining qualitative and quantitative research techniques. The research was carried out within the time frame of February 2024 to October 2024, which aligned with the academic schedule.

Materials and Methods:

Description of the study area: The study was conducted in Hula Woreda, located in the Sidama Regional State, with Hageresalam serving as its capital.

Covering a total area of 15,561 hectares, Hula Woreda features a diverse topography that includes mountains, plains, and hills, and comprises 16 rural kebeles and 3 urban kebeles. The total population stands at 113,664, with 56,766 females and 56,898 males (Hula Woreda Office of Administration, 2023). The average household size in the Woreda is about 6 individuals. Mixed agriculture, which includes both crop production and livestock rearing, is the primary livelihood for most households, with cereal cultivation and "Enset" being central to their survival. "Enset" is primarily utilized for household consumption, while common livestock in the region includes cattle, sheep, and horses (Hula Woreda Agricultural and Natural Resource Office, 2023).

According to the Hula Woreda Cooperative Development Office Annual Report (2023), there are various cooperative societies within the woreda, including 23 savings and credit cooperatives, 6 primary multipurpose cooperatives, 8 fruit and vegetable cooperatives, 11 bamboo processing cooperatives, 2 solar electrification cooperatives, 2 local sheep improvement cooperatives, 4 youth cooperatives, 1 plant protection and seed multiplier cooperative, 5 consumer cooperatives, and 6 forest protection cooperatives. In total, there are 68 primary cooperatives with 8,740 members, comprising 6,460 males and 2,280 females. Within 6 primary multipurpose cooperatives, there are 432 members, including 256 males and 176 females.

Research design and approach: The researchers employed an explanatory research design that utilizes a mixed-methods approach to enrich their data collection by integrating both quantitative and qualitative sources. This strategy strengthens the overall reliability and validity of the findings. By combining these methods, the study aims to deliver a comprehensive analysis of the numerous factors influencing members' engagement in key activities within primary multipurpose cooperatives in Ethiopia. These factors include socioeconomic variables and aspects of cooperative governance, which are essential to understanding the dynamics of member participation.

Sources of data:

This involved the collection of both qualitative and quantitative data from a variety of sources, including both primary data gathered directly from participants and secondary data obtained from existing literature and reports. By utilizing this diverse array of data, the study aimed to thoroughly assess the determinants affecting member engagement in cooperative activities.

Sampling procedure and techniques: A multi-stage sampling procedure was employed to select of study area, sample primary multipurpose cooperatives,

and sample member respondents.

In the first stage, Hula District was purposively selected from the Sidama Region due to the concentration of various types of cooperatives as compared to other Districts.

In the second stage, six Primary Multipurpose Cooperatives (PMCs) were identified within Hula Woreda. From this group of six, the researcher employed simple random sampling methods to select four PMCs for further analysis. This approach ensured that each PMC had an equal chance of being chosen, thereby enhancing the representativeness of the sample within the context of the research.

In the final stage, a total of 308 active members were identified within the selected Primary Multipurpose Cooperatives (PMCs). From this group, 174 members were chosen as respondents through a simple random sampling method.

Furthermore, the sample sizes were allocated to the members of the selected Primary Multipurpose Cooperatives (PMCs) in proportion to their respective total membership numbers. Ultimately, applying Yamane's formula, whereby 'n' represents the total sample size and 'N' denotes the total population, resulted in the selection of 174 sample respondents from four chosen PMCs. However, only 162 respondents returned the questionnaires.

The distribution of the total population and the corresponding sample sizes is summarized in the table below:

Table 1: Total Population and Sample Size Frame

SN	Name of PMCs	Total Members (N)	Sample Size (n)	Percentage (%)
1	Abela Garbicho	86	48	27.6
2	Odola Kura	98	55	31.7
3	Gatama Dela	54	31	17.8
4	Hanko Molicha	70	40	22.9
	Total	308	174	100

Source: Hula Woreda Cooperative Development Office (2023)

Tools and method of data collection:

Structured questionnaire: A structured questionnaire was developed in English to facilitate data collection from the sample respondents and ensure reliability. The researcher translated the English version into Sidaamu Afoo, the local language of the study area. A three-point Likert's scaling technique was used to collect the data on members' participation and satisfaction from

the respondents. A pre-test was also conducted to verify the validity and reliability of the questionnaire. Based on the feedback gathered from the pre-test, various modifications, corrections, and additions to words, phrases, and items in the questionnaire were made whenever possible. The printed copies of the questionnaire were given to the selected respondents, and the completed questionnaires were subsequently collected from them.

Method of data analysis:

The data collected were analyzed using descriptive statistical methods, including frequency, percentage, mean, and standard deviation, with appropriate figures to depict various characteristics of the respondents. An ordered logistic regression model was employed to analyze the key factors influencing member participation in the activities of primary multipurpose cooperatives. In this study, fourteen explanatory variables (Table 2) were chosen based on existing literature related to the topic. Consequently, the model for member participation in the performance of their primary multipurpose cooperatives can be formulated. The dependent variable is the level of member participation in PMCs, which is affected by the independent variables listed above.

Table 2: Working Definitions of Variables and Assumptions

Variables Name	Types	Measurement	Hypothesis
Members' participation (Dependent Variable)	Ordinal	Level of participation (1 for low, 2 =medium, and 3 for high)	
Age of respondents	Continuous	Years of schooling	+ve/-ve
Education level	Discrete	Years of schooling	+ve
Family size	Continuous	Number of family members	-ve
Distance to cooperatives	Continuous	Kilometers	-ve
Duration of membership	Continuous	Years of Membership	+ve
Training access	Discrete	Level of agreement	+ve
Participation in decision-making	Discrete	Level of agreement	+ve
Input access	Discrete	Level of agreement	+ve
Income	Continuous	“000” birr	+ve
Productivity	Discrete	Level of agreement	+ve
Farm size	Continuous	Hectares	+ve
Suspect of corruption	Discrete	Level of agreement	-ve
Contact with cooperative agents	Discrete	Level of agreement	+ve
Access to information	Discrete	Level of agreement	+ve

Results and Discussion:

Members' Participation in the activities of PMCs:

Member participation in primary multipurpose cooperatives is a crucial factor influencing their effectiveness and sustainability. Participation can be defined as the active involvement of members in the cooperative's decision-making processes, governance, and economic activities. Research indicates that higher levels of member participation can lead to improved organizational performance, greater satisfaction among members, and increased social cohesion within rural communities. This section aims to evaluate the extent of member engagement in the activities of primary multipurpose cooperatives. The findings from the survey are presented and analyzed in Table 3.

Table 3: Members' participation in business and management affairs of PMCs

Indicators	High	Medium	Low	Total
Participation in the General Assembly	20 (12.3%)	12(7.4)	130(80.2)	162(100)
Participation in the provision of interest	21 (13.0%)	3(1.9)	138(85.2)	162(100)
Participation in the shared benefits	106 (65.4%)	44(27.2)	12(7.4)	162(100)
Participation in the provision of resources	78 (48.1%)	11(6.8)	73(45.1)	162(100)
Participation in voting and election	50 (30.9%)	0	112(69.1)	162(100)
Participation in evaluating coop activities	41 (25.3%)	9(5.6)	112(69.1)	162(100)
Participation in approving annual plan & budget	23 (14.2%)	11(6.8)	128(79.0)	162(100)
Participation in approval & amendments of by-law	23 (14.2%)	3(1.9)	136(84.0)	162(100)
Participation in purchasing agricultural inputs	105 (64.8%)	53(32.7)	4(2.5)	162(100)
Participation in buying additional shares	81 (50.0%)	10(6.2)	71(43.8)	162(100)

Source: Field Survey, (2024)

Note: Figures in the parenthesis denote percentage to total

Participation in the General Assembly: A majority of members, 130 (80.2%), exhibit low participation, with only 20 (12.3%) participating at a high level and 12 (7.4%) showing medium engagement. This suggests a significant disengagement from this crucial governance body, which may impede effective decision-making and representation of member interests.

Participation in the Provision of Interest: Similar to the General Assembly, most members (138, or 85.2%) have low involvement in this area, with high participation only reaching 21 (13.0%). This could indicate a lack of interest or understanding of how participating in interest provision can benefit them.

Participation in Shared Benefits: This category shows a notable contrast; 106 members (65.4%) actively participate at a high level in sharing benefits, while only 12 (7.4%) show low engagement. This suggests that once benefits are recognized and distributed, members are more willing to engage actively.

Participation in the Provision of Resources: Participation is relatively modest, with 78 (48.1%) at a high level but 73 (45.1%) remaining low. The balanced proportions in this indicator indicate that while many members contribute, nearly half are not engaging in providing resources, which is vital for cooperative operations.

Participation in Voting and Election: Here, a significant majority (112, or 69.1%) do not participate, with only 50 (30.9%) engaging actively. This reflects a concerning trend of apathy towards electoral processes, which could undermine the democratic functioning of the cooperative.

Participation in Evaluating Cooperative Activities: The evaluation participation mirrors the voting trend, with 112 members (69.1%) showing low engagement, and just 41 (25.3%) actively participating. This disengagement may result in missing critical feedback opportunities for the cooperative's growth and accountability.

Participation in Approving Annual Plans and Budgets: A high level of low participation is indicated, with 128 members (79.0%) not engaging in this essential planning process. This may lead to budgetary decisions that do not reflect the members' needs or priorities.

Participation in Approval and Amendments of By-law: Like the previous indicators, most members (136, or 84.0%) are not involved in this vital regulatory process, indicating a lack of clarity or investment in the operational rules of the cooperative.

Participation in Purchasing Agricultural Inputs: In contrast to other categories, a majority of members (105, or 64.8%) are highly engaged in this area, indicating that the procurement of agricultural inputs is a significant concern and priority for them.

Participation in Buying Additional Shares: Here, participation is split, with 81 (50.0%) active in buying more shares, while 71 (43.8%) show low participation. This suggests a more varied engagement level, with a substantial number of members willing to invest further in the cooperative.

Overall, the data indicates a concerning trend of low participation among cooperative members in critical governance and evaluation functions, pointing to potential issues of disengagement, apathy, or a lack of understanding of the importance of these roles. Conversely, higher participation in shared benefits and purchasing agricultural inputs demonstrates a greater interest in tangible outcomes and resources that provide immediate benefits.

Members' satisfaction with the services of PMCs: The satisfaction of members regarding the services provided by Primary Multipurpose Cooperatives (PMCs) is a critical aspect that can significantly influence their effectiveness and sustainability. When members are content with the services offered by PMCs, it not only enhances their productivity but also contributes to the overall success of the cooperative.

Table 4: Members' satisfaction level with the services of PMCs

Services Offered by PMCs	Level of Satisfaction (n=162)		
	High	Medium	Low
Providing improved seeds	8(4.9)	56(34.6)	98(60.5)
Offering improved agricultural fertilizers	14(8.6)	25(15.5)	123(75.9)
Exercising leadership style	3(1.9)	68(42.0)	91(56.1)
On patronage dividend distribution process	7(6.4)	13(8.0)	142(87.6)
Helping other weaker sections	14(8.6)	34(21.0)	114(70.9)
With the price paid by the PMCs for the products delivered	6(3.7)	69(42.6)	87(53.7)
The PMCs provide services to help you achieve your business goals	8(4.9)	14(8.6)	140(86.4)
Pleased with the running of the PMCs as a business establishment	14(8.6)	35(21.6)	113(69.8)

Source: Field Survey, (2024)

The data presented summarizes the level of satisfaction among participants (n=162) regarding various services offered by Primary Multipurpose Cooperatives (PMCs). The findings reflect the perceptions of respondents on several aspects of PMC services.

A significant majority (over 60%) of respondents are not satisfied with the improved seeds provided by the PMCs. This suggests a need for the PMCs to enhance the quality and availability of seeds or to better communicate their benefits to farmers. Similar to seeds, a high percentage of respondents (75.9%) are dissatisfied with the fertilizers. This reveals potential issues regarding the quality, accessibility, or suitability of the fertilizers being offered by the PMCs. The leadership style within the PMCs is viewed negatively by more than half of the participants. Improvement in leadership training and organizational management may be necessary for greater effectiveness.

The vast majority of respondents are dissatisfied with the dividend distribution process. This indicates a critical area of concern that could affect member retention and trust in the cooperative model. There is a clear perception that PMCs are not adequately supporting weaker sections of the community, which could hinder inclusive growth and cooperation. Over half

of the participants expressed dissatisfaction with the pricing structure for products delivered to PMCs. This highlights a potential issue in pricing strategies that could affect farmers' earnings.

A striking lack of satisfaction (86.4%) suggests that the PMCs are failing to meet the business needs and objectives of their members, indicating a need for more responsive and targeted services. A considerable majority express dissatisfaction with how the PMCs are managed, suggesting that organizational efficiency and member engagement may require reevaluation. The data reflects a pervasive dissatisfaction with various aspects of the services offered by PMCs. Key areas for improvement include the quality and accessibility of agricultural inputs, leadership effectiveness, transparency in dividend distribution, support for weaker sections, pricing mechanisms, responsiveness to members' business needs, and overall management practices.

Determinants of members' participation: According to Table 5, the final model includes 14 independent variables, of which eight were identified as statistically significant, while the other six were not statistically significant.

Table 5: Results of Ordered Logistic Regression

Independent Variables	Coefficient (β)	Odds Ratio	Std. Err.	z	P> z
Age of the respondents	.285	1.330	.421	0.90	.368
<i>Educational level</i>	<i>1.300</i>	<i>3.670</i>	<i>1.709</i>	<i>2.79</i>	<i>.005**</i>
Farm size	-.112	.893	.299	-0.34	.737
<i>Family size</i>	<i>-.955</i>	<i>.384</i>	<i>.158</i>	<i>-2.32</i>	<i>.020**</i>
<i>Duration of membership</i>	<i>.858</i>	<i>2.358</i>	<i>.993</i>	<i>2.04</i>	<i>.042**</i>
Income	-.274	.760	.335	-0.62	.534
<i>Distance to PMC Centre</i>	<i>-1.209</i>	<i>.298</i>	<i>.145</i>	<i>-2.48</i>	<i>.013**</i>
<i>Access to agricultural input</i>	<i>1.221</i>	<i>3.392</i>	<i>1.761</i>	<i>2.35</i>	<i>.019**</i>
Productivity	.239	1.270	.552	0.55	.582
Contact with cooperative agent	-.308	.734	.316	-0.72	.474
Participation on decision making	.139	1.149	.550	0.29	.771
<i>Training access</i>	<i>.863</i>	<i>2.372</i>	<i>.983</i>	<i>2.08</i>	<i>.037**</i>
<i>Presence of corruption</i>	<i>-2.050</i>	<i>.128</i>	<i>.097</i>	<i>-2.70</i>	<i>.007**</i>
<i>Update information flow</i>	<i>2.342</i>	<i>10.409</i>	<i>8.560</i>	<i>2.85</i>	<i>.004**</i>
Number of Obs = 162			LR Chi ² (14) = 49.38		
Prob > Chi ² = .0000			Pseudo R ² = .5347		
Note: ** indicates significance at a 5% confidence level.					

Source: Model Output from SPSS (2024)

Table No. 5 indicates that:

1. The education level of members has a positive and significant impact on their participation, with a significance level of 5%.

2. The distance to the cooperative center, which is negatively associated with member participation at the 5% significance level. A shorter distance reduces the time and labor members expend in seeking various services from PMCs.
3. Family size is negatively and significantly correlated with member participation at a 5% significance level.
4. Duration of membership emerges as the most significant predictor, showing a positive and significant relationship with participation in PMCs ($\beta_5 = 0.858$, $OR = 2.358$, $p = .042$) at a 5% significance level.
5. Access to improved agricultural inputs is crucial for PMC members to enhance their participation in cooperative activities. The study highlights a positive and significant association with participation ($\beta_8 = 1.221$, $OR = 3.392$, $p = .019$) at a 5% significance level.
6. Access to training also shows a positive and significant influence on member participation at a 5% significance level.
7. The presence of corruption negatively affects member participation at a 5% significance level.
8. This highlights the importance of access to timely information as a strong motivator for participation in cooperative activities.

Conclusion:

The analysis presented highlights the critical role of primary multipurpose cooperatives (PMCs) in enhancing agricultural productivity, rural development, and the socio-economic well-being of their members in Hula Woreda, Southern Sidama Zone, Ethiopia. The findings indicate that while PMCs serve essential functions in providing agricultural inputs and facilitating market access, member participation remains a significant challenge. The majority of cooperative members demonstrate low levels of engagement in key governance activities, such as participating in the General Assembly, decision-making, and evaluation processes. This apathy towards cooperative governance can hinder the effectiveness and sustainability of these organizations.

Satisfaction levels concerning the services provided by PMCs also reveal substantial room for improvement, particularly in areas such as the quality of agricultural inputs, leadership effectiveness, and transparency in financial practices. A striking 86.4% of members expressed dissatisfaction with the

PMCs' ability to meet their business needs, indicating potential barriers to active and sustained participation.

The determinants of participation among members reveal several key factors influencing engagement levels. Education emerged as a significant predictor, with more educated individuals being more likely to participate actively in cooperative activities. Other critical factors included family size, proximity to the cooperative center, duration of membership, access to agricultural inputs, access to training opportunities, perceived corruption, and the flow of updated information. These variables compound the complexities surrounding member participation, underscoring the necessity for tailored strategies that enhance engagement by fostering education, reducing distances to cooperatives, and improving transparency and access to relevant resources.

Ultimately, this study calls for cooperative leaders and policymakers to prioritize strategies that stimulate member engagement, enhance service quality, and build trust within the cooperative model. By addressing the identified gaps and leveraging the determinants of participation, PMCs can significantly contribute to the socio-economic development of rural communities, bolstering both individual livelihoods and agricultural productivity in Ethiopia. The findings emphasize that fostering a cooperative culture rooted in active member participation is paramount for realizing sustainable agricultural transformation and economic growth in the region.

Recommendations:

The study's findings indicate that education and training among members were not significant; this suggests that educated members are more inclined to engage and participate in cooperatives compared to those who are illiterate. Education serves as a crucial tool for enhancing member participation in cooperatives. Consequently, educational and training programs should concentrate on cooperative rules and regulations while also emphasizing teaching methods that foster and reinforce solidarity among members. Furthermore, training should align with the members' existing knowledge and activities, as well as address the objectives of the knowledge being acquired.

The management committee of the PMC should work to ensure active member participation in PMC activities and election processes. If they can guarantee that members engage in these activities, it may lead to greater satisfaction and retention among members.

One of the primary challenges identified by members is the inadequate provision of improved agricultural inputs and fertilizers. To enhance member

participation, cooperatives must ensure they supply these essential agricultural resources.

The woreda government, alongside non-governmental organizations, needs to establish appropriate legislation to address the financial and logistical challenges faced by the cooperative promotion office. It has been consistently emphasized that current development strategies require active member participation across all sectors, particularly in cooperatives. Collaborative efforts from all relevant parties are essential to address the socio-economic issues faced by society at their roots.

The Hula Woreda Cooperative Development Office and the Regional Cooperative Development Agency should collaborate to integrate primary multipurpose cooperative societies with multipurpose cooperative unions. By becoming members of these unions, PMCs can enhance their financial capacity and improve the availability of agricultural inputs and fertilizers. This, in turn, is likely to increase member participation in PMCs.

Additionally, future research should empirically explore the factors influencing member participation in primary multipurpose cooperative societies within the Sidama National Regional State to promote comprehensive engagement in all aspects of cooperative activities.

To enhance overall participation and cooperative effectiveness, efforts to improve member engagement in governance decisions and establish clearer communication on the value of their participation are necessary.

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08

A Case Study on Performance of Koovanuthu Primary Agricultural Cooperative Credit Society Ltd. with Special Reference to Multiservice Center

S. Nagoor*

Abstract:

This case study examines the performance of Koovanuthu Primary Agricultural Cooperative Credit Society Ltd. (KPACCS), with a focus on its multiservice centers. KPACCS supports the local agricultural sector by offering financial services and multiservice activities like input supply, produce procurement, and consumer goods distribution. The study analyses KPACCS's financial performance, member participation, and service center efficiency from 2013–2023, assessing its impact on farmers' livelihoods and the cooperative's sustainability. Key performance indicators, including loan disbursement, recovery rates, profitability, and member satisfaction, are used to evaluate its effectiveness. The findings highlight successes in financial inclusion and service delivery but identify areas for improvement, such as digital integration and credit management. Recommendations for enhancing operational efficiency and long-term sustainability are provided, offering valuable insights for policymakers and rural development leaders.

Key Words:

Multiservice centers, Agri clinic and Focus group discussion.

Introduction:

Financial sustainability challenges faced by cooperatives, including issues in financial management, governance, and resource mobilization. Koovanuthu Primary Agricultural Cooperative Credit Society Ltd. aims to improve members' economic well-being through credit, savings, and financial services, alongside promoting agricultural development. The cooperative has expanded operations through multiservice centers to cater to diverse member needs. The case study explores the strategies Koovanuthu employs to tackle these challenges and enhance its financial sustainability. The findings offer

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insights for other cooperatives to improve financial health and resilience.

Statement of the Problem:

Koovanuthu Primary Agricultural Cooperative Credit Society Ltd. and its multiservice centers face challenges like inadequate revenue, loan defaults, limited-service diversification, and inefficient resource management. These issues threaten their financial sustainability and operational efficiency. This study aims to identify these challenges and propose strategies to improve the cooperative's financial health and long-term viability, ensuring its continued impact on the community.

Objectives of the Study:

1. To study the general working performance of sample society
2. To analyze performance of society related to the multi service center
3. To offer suitable measures for best performance

Research Methodology:

Case study method has been followed for this study. There are 197 primary agricultural cooperative credit societies functioning in the Dindigul district.

The society selected for the study is A.2957 koovanuthu primary agricultural cooperative credit society limited, Nilakottai, Dindigul district.

Sources of Data:

Primary data have been collected from the sample society about the policies, procedures and practices of the performance of the societies, the information gathered through discussions with the officials in the selected society and data have been gathered from financial statements, audit reports and records.

The profit and loss accounts and balance sheets of selected credit societies have been recast and presented in a condensed form. In this study, statistical techniques such as trends, averages, and percentages have been applied.

Profile of the Society:

- ❖ A.2957 Koovanuthu Primary Agriculture Credit Cooperative Society limited registered on 28th August 1968 and Date of functioning on 27.10.1968 under TNCS 1983 Act No 30 section II with the members of 1746 members were run successfully. The main reason for organizing the society was to provide credit facilities to the needy farmers for their agricultural purpose.

- ❖ The society was functioning under the leadership of N.P. Muthu Irulandi.

Objectives of the Society:

- To examine the financial strategies employed by Koovanuthu Primary Agricultural Cooperative Credit Society Ltd. to enhance its financial sustainability in a changing economic environment.
- To evaluate the role of multiservice centers in diversifying services and contributing to the financial health and growth of the cooperative.
- To provide recommendations for other cooperatives on best practices and strategies for improving financial sustainability, governance, and member engagement.
- To examine the financial sustainability of Koovanuthu Primary Agricultural Cooperative Credit Society Ltd. and its Multi-Service Centers.

Enhancing Financial Sustainability in Cooperative Strategies:

- ❖ Diversifying Revenue: Invest in agriculture, offer value-added services, and use digital platforms.
- ❖ Strengthening Financial Management: Conduct audits, create budgets, and maintain reserve funds for transparency.
- ❖ Adopting Innovative Models: Leverage technology, sustainable practices, and cooperative collaboration to enhance efficiency.
- ❖ Maintaining Competitiveness: Focus on quality products, branding, and market research.

Multiservice Centers:

- Multi Service Centre at Koovanuthu Primary Agricultural Cooperative Society 15 years ago there were tractors and power tiller machines. But the problem is that I don't have a driver to operate machinery. This was a big problem. Take another problem machine and pay the rent. 15 years ago, the Koovanuthu Primary Agricultural Cooperative Society earned a profit of one lakh a year, now it is going to be a loss, because the e-service center in the private sector is open, so all the customers go to the private shop.
- Now the Primary Agricultural Cooperative Society has a power spray machine and a power tiller.

- Power Teller machine in one day rend in ₹100
- Power Spray machine in one day rend in ₹200

Indicative list of possible business activities:

- Agro-Storage Centre - Good quality storage capacity as per WDRA Act.
- Agro-Service Centre - Custom hiring of agricultural implements, collective purchase of inputs
- Agri Transportation & Marketing Facilities

Some of the innovative things done by few PACS in Gujarat:

- ❖ RO Water plant.
- ❖ Construction of Godowns and Accreditation of the same under WDRA.
- ❖ Custom Hiring Centre for Tractors & Implements.
- ❖ Sale of Cement and Cattle Feed.
- ❖ Installation of Xerox Machine.
- ❖ Planning to go for Renewable Energy.

Table 1: Share Capital position of the Society (Rs.)

Year	A Class	B Class	Government	Total	Growth Rate
2018-2019	19.38	-	2.00	21.38	7.87
2019-2020	22.21	-	2.00	24.21	13.23
2020-2021	27.08	-	2.00	29.08	20.11
2021-2022	47.72	-	2.00	49.72	70.97
2022-2023	54.78	-	2.00	56.78	14.19

Interpretation:

Shows the share capital position of Koovanuthu PACCS, From the above table, it is interpreted that the government share capital remained Rs. 2.00 lakhs. During the period of 2018-2019 the share capital position of A class members Rs. 21.38 lakhs and its increasing gradually to Rs. 56.78 lakhs in the year of 2022-2023.

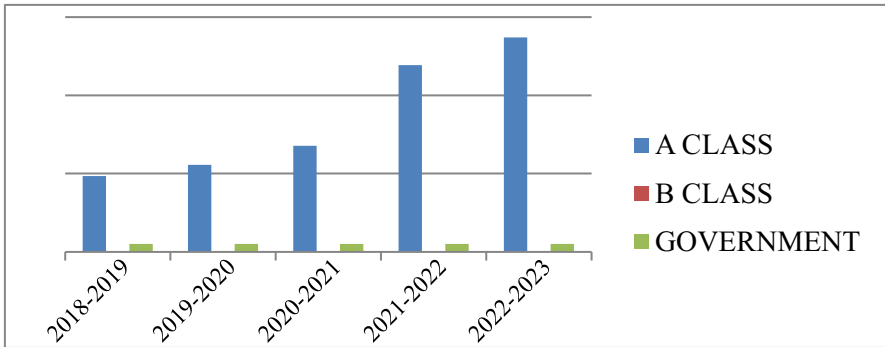


Table 2: Reserve Fund Position of the Society

Year	Statutory Fund	Non Statutory Fund	Total	Growth Rate
2018-2019	5.38	5.03	10.41	-16.25
2019-2020	5.58	5.10	10.68	2.59
2020-2021	5.81	5.37	11.18	4.68
2021-2022	6.02	7.38	13.40	19.85
2022-2023	6.24	4.62	10.86	-18.95

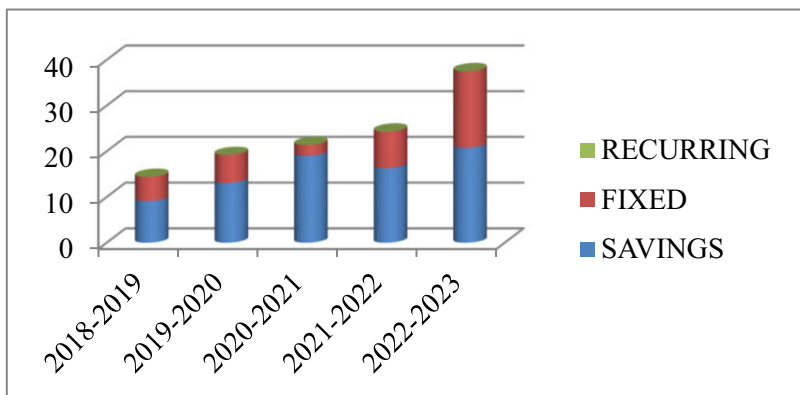
INTERPRETATION: shows the reserve fund position of Koovanuthu PACCS. The reserve fund were Rs.10.41 lakhs in 2018-2019 and it were increased Rs. 10.86 lakhs in the year 2022-2023.

Table 3: Deposits of the Society

Year	Savings	Fixed	Recurring	Total	Growth rate
2018-2019	9.15	5.28	0.01	14.44	6.64
2019-2020	13.11	6.10	0.01	19.22	34.62
2020-2021	18.97	2.45	0.01	21.43	11.49
2021-2022	16.27	8.08	0.01	24.36	13.67
2022-2023	20.75	16.81	0.01	37.57	54.22

Interpretation:

shows the Deposits of the Koovanuthu PACCS. The deposit mobilized from members in 2018-2019 was Rs. 14.44 lakhs, it will increased up to Rs.37.57 lakhs in the year of 2022-2023.

**Table 4: Borrowings**

Year	DCCB	Others	Total	Growth rate
2018-2019	281.67	9.99	291.66	-3.98
2019-2020	322.67	9.99	332.66	14.05
2020-2021	248.28	9.99	258.27	-22.36
2021-2022	497.74	9.99	507.73	96.58
2022-2023	527.93	9.99	537.92	5.94

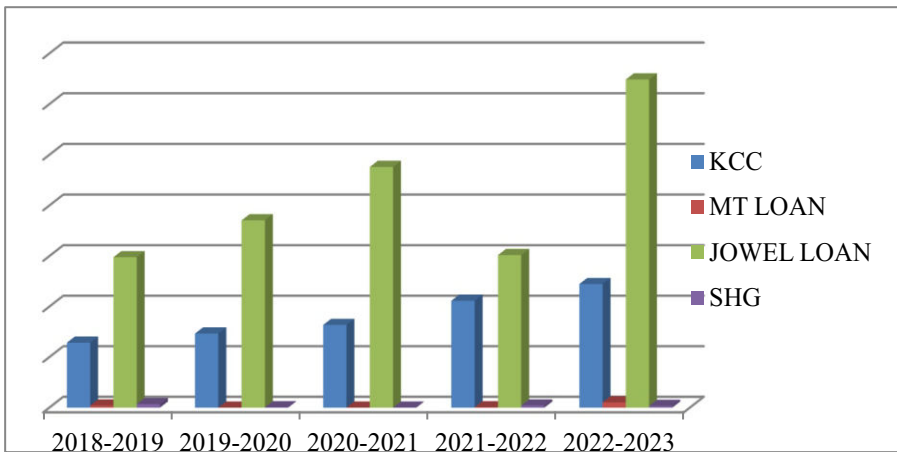
Interpretation: shows the borrowing position of Koovanuthu PACCS. The society were borrowed fund from DCCB 281.67 in the year of 2018-2019 and it will increased to 527.93 in the year of 2022-2023. And the total borrowings of the society were Rs. 291.66 lakhs in 2018-2019 and it were increased Rs.537.92 lakhs in 2022-2023.

Table 5: Issue of loans to members

Year	KCC	MT loan	Jewel loan	SHG	Others	Total
2018-2019	128.48	4.05	297.73	6.80	-	437.06
2019-2020	146.60	-	370.75	0.60	-	517.95
2020-2021	163.66	-	475.95	0.10	1.00	640.71
2021-2022	211.64	0.50	301.93	4.20	0.40	518.67
2022-2023	244.59	10.45	648.57	3.30	-	906.91

Interpretation:

shows the Loan issues for Koovanuthu PACCS it found to have Rs.437.06 lakhs in 2018-2019 and it will increased to Rs.906.91 lakhs in the year of 2022-2023. The MT loan were not provided in the 2019 to 2021.



Working Capital

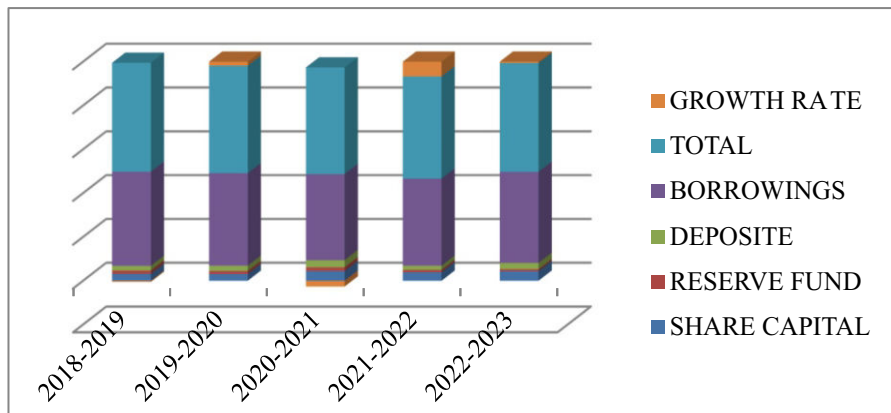


Table 6: Position of net profit or net loss

Year	Total income	Expenditure	Profit or loss	Audit classification
2018-2019	43.82	38.04	5.78	“C”
2019-2020	41.98	39.84	2.14	“C”
2020-2021	53.14	53.65	-0.51	“C”
2021-2022	47.40	44.00	3.40	“C”
2022-2023	48.78	46.10	2.68	“C”

Interpretation:

shows the loss position of the society within the collection 2018-2019 Rs.5.78 lakhs. The decreasing for the collection of the 2022-2023 Rs.2.68 lakhs. So it shows that the Net loss level is decrease in the society.

Findings:

- ▶ During the study period the position of a ‘A’ class and ‘B’ class members were 2494 in the year 2018-2019 and it increased to 2643 in the 2019-2020. Continuously the position of membership increased at 3032 in the period of 2022-2023.

- ▶ Shows the share capital position of Koovanuthu PACCS, From the above table, it is interpreted that the government share capital remained Rs. 2.00 lakhs. During the period of 2018-2019 the share capital position of A class members Rs. 21.38 lakhs and its increasing gradually to Rs. 56.78 lakhs in the year of 2022-2023.
- ▶ Shows the reserve fund position of Koovanuthu PACCS. The reserve fund were Rs.10.41 lakhs in 2018-2019 and it were increased Rs. 10.86 lakhs in the year 2022-2023.
- ▶ Shows the Deposits of the Koovanuthu PACCS. The deposit mobilized from members in 2018-2019 was Rs. 14.44 lakhs; it will increased up to Rs.37.57 lakhs in the year of 2022-2023.
- ▶ Shows the borrowing position of Koovanuthu PACCS. The society were borrowed fund from DCCB 281.67 in the year of 2018-2019 and it will increased to 527.93 in the year of 2022-2023. And the total borrowings of the society were Rs. 291.66 lakhs in 2018-2019 and it were increased Rs.537.92 lakhs in 2022-2023.
- ▶ Shows the Loan issues for Koovanuthu PACCS it found to have Rs.437.06 lakhs in 2018-2019 and it will increase to Rs.906.91 lakhs in the year of 2022-2023. The MT loan was not provided in the 2019 to 2021.
- ▶ Shows the working capital position of sample society it found to have Rs.337.89 lakhs in 2018-2019 and it will increase to Rs.643.13 lakhs in the year of 2022-2023.
- ▶ Shows the loss position of the society within the collection 2018-2019 Rs.5.78 lakhs. The decreasing for the collection of the 2022-2023 Rs.2.68 lakhs. So it shows that the Net loss level is decrease in the society.

Suggestion:

- To develop self-employment in the rural areas the society should provide training to the rural unemployed people.
- Implement Waste Management and recycling programs.
- To help the farmers the society should adopt easy procedures for distributing and covering the loan from farmers.
- Continuation of procurement to ensure fair pricing.

- The society should provide quality necessary agricultural items at reasonable price to the farmers.

Conclusion:

The case study of Koovanuthu Primary Agriculture Credit Cooperative Society Limited and multi-service centres highlights the importance of diversifying services and revenue streams to enhance financial sustainability in cooperative strategies. By leveraging its existing network and expertise, the cooperative has successfully expanded its services to include non -credit activities such as input supply, output marketing, and training, thereby reducing its dependence on interest income and increasing its overall revenue.

Reference:

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09

Role of Souharda Cooperatives in Gender Equality with reference to Scodwes Mahila Souharda Co-operative Society Limited, Sirsi, Karnataka

Sharangouda Patil*

Abstract:

A cooperative 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, by definition. However, Most of the Study Groups found that cooperatives are not free from interference, political or otherwise. Post-independence of India much was spoke of autonomy of cooperatives and liberalization from interferences. Only in the State of Karnataka, a novel experiment took place from 1997, Under the Souharda Cooperative Act. The Act came into force from January 1, 2001 and as on 31st March 2024, there are 6450 Souharda Cooperative Societies working under the federal body, Karnataka State Souharda Federation Ltd., Bengaluru. Federation is responsible for all functions of Registrar of Cooperative Societies for the societies registered under this Act.

This paper aims to find the role of Souharda Cooperative Societies in women empowerment. A Souharda women co-op society is studied by case study method, interacting with office bearers and members of the Society using unstructured and structured questionnaires. It is observed that Souharda Cooperative Model is better for empowerment of rural women.

Keywords:

Souharda Cooperatives, Women Empowerment, Autonomy of Cooperatives

I. Introduction:

Cooperatives in India have long history and they are undergoing changes through various legislations, enacted at federal level and state level from time to time. Instead of cooperatives being member driven and controlled, they are controlled by federal government for multi-state cooperatives and by state governments for the cooperatives registered under state cooperative act

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(veena Nabar 2000). Government of India has established various study groups and committees for professionalization and autonomy of cooperatives; like in recent times Choudhary Bramha Prakash Committee (1997), High Power Committee (2009). These efforts have little impact on functioning of cooperatives and it is observed that there is more political interference into activities of cooperatives.

There are three States in India who came forward to give autonomy to cooperatives. The State of Andhra Pradesh, in the year 1995 enacted Mutually Aided Cooperative Society Act as well as Telagana Mutually Aided Cooperative Societies Act. The Cooperatives formed under this act are self-financing and free from government interference. On the same line, State of Karnataka a novel experiment took place from 1997, Under the Souharda Cooperative Act. The Act came into force from January 1, 2001 and as on 31st March 2024, there are 6450 Souharda Cooperative Societies working under the federal body, Karnataka State Souharda Federation Ltd., Bengaluru. Federation is responsible for all functions of Registrar of Cooperative Societies for the societies registered under this Act.

With this Act, Souharda Cooperatives are functioning very independently under guidance and supervision of their Federation. Karnataka Souharda Federation Ltd. is not only supervising these Societies but also providing all support and development services. Federation has 4 divisional offices and 5 training Centres. The member societies are utilizing their freedom for uplift their members financially and socially.

However, little research has been conducted on the role of Souharda cooperatives in gender equality. Against this background the present Study endeavors to investigate the position and status of women in the income generating activities vis-a-vis their control over the resources.

According to Roy and Niranjana (2004), cited in Ibrahim & Alkire (2007), Empowerment is associated with indirect indicators like Education and work participation of women, and direct indicators of female autonomy (empowerment) such as decision making, mobility and access to economic resources that can be viewed both as an outcome and a process. This paper proposes to examine the role of Souharda cooperatives in gender equality and women empowerment of rural women.

Literature Review:

1. Shilpa. K , et al (2022) focus is to understand the Pranava Souharda Sahakari Ltd operations. Secondary data is collected from published papers,

books and websites from google scholar, bank website and research gate. Authors found that Pranava Souharda Sahakari Ltd. Is a cooperative bank which caters the needs of many businessmen, localities, and community in large by providing good banking services. The study highlights the prospects of Pranava Souharda Sahakari Ltd and provides suggestions for further improvements and Credit securitization is necessary. The credit Withdrawal Company should regularly evaluate the customer's financial situation. Banks should make every effort to deal with the NPA.

2. Siddhartha S Vishwam (2017) Studied the current scenario of Saraswathi Credit Souharda Sahakari Limited credit co-operative society in Karnataka, by revealing its essential, its brief history, its current structure among the co-operative credit society, improvement in financial position of SSCSSL, contribution of SSCSSL towards some important services of the Dakshina Kannada District. At the present this paper also highlights the emerging of services and food awareness programmes by SSCSSL and its growth trend of prospects. Authors were relying merely on the bases of secondary data and information. The secondary data was collected from Annual Reports of Shri Saraswathi Credit Souharda Sahakari Limited and Office records of Shri Saraswathi Charitable Trust in Puttur Town of Dakshina Kannada District, journals, and website. The period for the study covers from 2008-09 to 2015-16. The used to statistical devices such as percentages, compound annual growth rate and annual growth rate are applied to analyze of this study by scanning various books and research studies, researcher found that there is no literature available on women empowerment through Souharda Cooperatives.

Research Methodology and data Collection:

This is an empirical study aimed at finding out the level of women empowerment from Souharda cooperatives. The study employs both qualitative and quantitative methods to investigate the questions. The study is with special reference with Scodwes Mahila Souharda Co-operative Society Limited, Sirsi. The primary dairy cooperatives will be selected by purposive sampling technique. The present study was conducted from 55 women members. The interviews were realized in the absence of male family members to minimize bias. The data was collected through personally interviewing the respondents with the help of a pre-tested structured interview schedule. The responses were scored, quantified, categorized and tabulated using frequencies and percentage.

The Secondary data was collected from related to dairy societies, notices,

reports, gazettes, relevant documents, pamphlets, written material on the dairy cooperatives and text book related articles, journals periodicals. The statistical tools such as scaling techniques, averages was applied for the analysis of the data to know extent of women empowerment among the dairy members.

For primary data was collected with the help of questionnaire which includes questions on economic gains, Awareness of Cropping pattern, Awareness of dairy cooperative membership, producing activities, Income activities and Expenses. Questions relating to decision making activities like control over and use of income, ownership of assets / Purchase, Sale or transfer of assets, access to and decisions about credit, leadership and public speaking ability. The questionnaire was framed considering the objectives.

The objectives of the study are:

1. To analyse the socio economic conditions of women members in Souharda cooperatives.
2. To assess the decision making behavior of the women members in management activities.
3. To analyse the income utilization from by women members and
4. To identify the constraints faced by women members in the study area

II. Profile of the Scodwes Mahila Souharda Co-operative Society Limited, Sirsi

Sahyadri Community Development and Women Empowerment Society (SCODWES), a NGO was established in the year 2005 in Karnataka with aim of helping poor, marginal farmers, differently able and others. The emphasis is on organic farming, literacy camps and more of self-help. NGO promoted SHGs and in turn stated assisting women in income generating activities and taking care of their consumer contingencies. In the year 2014, one young member applied for loan of Rs. 2 lakhs to a bank for her marriage. Bank sanctioned loan after persuasion just before the day of marriage but in cash. It was parliamentary election period and the cash was confiscated by election machinery. The lady was in great difficulty. NGO helped her to complete the marriage ceremony but decided to do something concrete and evolve a system to help the members. After in depth study of various alternatives, it was decided to form a cooperative society of its own members, which should be instrumental to empowerment of the members.

In the year 2015, under Souharda Cooperative Act the society is established as

“ Scodwes Mahila Souharda Co-operative Society Limited, Sirsi, Karnataka. Initially Society was limited, area of operation, only for –districts of north Karnataka. There were 3176 members initially. On 31st March 2024, there are 12,040 members and the area of operation is whole of Karnataka State.

Scodwes advances loan for income generating activities like shops, flour mills, agri equipment and so on. With 60 field staff Scodwes operate all over Karnataka. The NPA is zero percent. Other financial details are presented.

Table No. 1 : Performance of Scodwes Society

Particulars/Year	2019-20	2020-21	2021-22	2022-23	2023-24
Share capital	59,90,500	65,43,600	74,76,800.00	78,70,600.00	78,52,300.00
Number of members	5348	5688	6749	9656	12040
All Funds	15,51,238	24,83,082	25,86,869.00	33,63,216.00	52,74,966.00
Borrowing	13,02,745	14,52,363	36,34,661.00	21,14,441.00	97,45,321.00
Other Lialibitiy	15,21,637	57,47,717	58,57,516.00	80,93,012.00	1,07,48,060.00
Investment	1,10,27,160	1,20,67,543	1,45,45,659.00	1,72,44,286.00	2,04,70,259.00
Loan And Advance	5,03,59,415	4,47,90,860	5,73,62,876.00	6,04,39,248.00	8,74,27,647.00
Advance and Deposit	8,41,695	42,27,031	71,88,993.00	98,21,276.00	1,22,27,333.87
Working capital	6,26,79,542	6,24,44,671	8,02,10,567.00	9,06,15,511.00	11,84,58,030.00
Profit	8,58,930	1,05,904	7,36,063.00	8,50,010.00	13,24,404.00

III. Data Analysis and Interpretations:

The personal information of the respondents like Membership, family type, age and educational qualification are categorized below:

Table 2: Demographic Information of members under study

Variables	Numbers of Members	Percentage
Gender		
Male	13	23.64%
Female	42	76.36%
Age		
18-25	2	3.64%
26-35	12	21.82%
36-50	33	60.00%
51 and above	8	14.55%

Variables	Numbers of Members	Percentage
Educational Qualification		
Illiterate	5	9.09%
Primary Education	18	32.73%
Secondary Education	16	29.09%
Higher Secondary Education	12	21.82%
Graduate and above	3	5.45%
Other	1	1.82%
How much land do you own		
Less than 1 acre	2	3.64%
1–3 acres	21	38.18%
4–7 acres	26	47.27%
More than 7 acres	6	10.91%

Demographic Profile of respondents (n=55)

Table No. 2 shows the personal information of the respondent. The table shows that only 55 members are in cooperative societies. Most of the respondents were between the age group 18 years to 50 years. 33 respondents were in the age group of 36 years to 50 years. Nearly 8 respondents were from the age group of above 50 years. 5 of the respondents were illiterate, 16 respondents completed their twelve years of schooling. 18 respondents were below SSC. Only 4 respondents were graduation and post-graduation. 26 members have more than 4 to 7 acres own land.

Table 3: Awareness of Society membership

Dairy cooperative membership	Score
Which household member(s) is/are shareholders?	Women members Aware – 90.70% Unaware – 9.30%
Year of membership in Cooperative:	91.42%
Did you ever attended any meeting?	57.71%
How many times did you attended a training?	64.28%

Table 3 indicates the awareness among the society membership. 90.70 percent of respondents were aware of shareholders in societies and 9.30 percent were unaware of Shareholders. 91.42 percent respondents were aware of their membership with society. Only 57.71 percent of respondents participate in regular meeting. 64.28 percent of respondents have attended the training programs offered by Society.

Table 4: Information regarding Society

Who gave you information regarding Society		Score
	Family members	10%
	Co-operation dept.	55%
	Neighbors	6%
	Nobody	-
	Others	29%

Table 4 reveal majority of the respondents' main motivators to join the society were family members. Nearly 10 per cent respondents got the information regarding the society from their own family members. 55 per cent of the respondents were motivated by the society members. Only 6 per cent, and 29 per cent of respondents were influenced by Neighbour's and others respectively.

Table 5: Benefits from Society

Which benefits do you get from co-operative membership?		Score
	Higher Price	-
	Input supply	-
	Processing	-
	Consultancy services	-
	Credit	77%
	Marketing	13%
	Training	5%
	Others	5%

Table No. 5 indicates most important benefits perceived by society members are the supply of concentrated feed stuff, the provision of veterinary service, and a higher price paid. 77 per cent respondents feel that loan credit is also an important benefit from the societies. 13 per cent felt marketing are other important benefits that they avail from the cooperative societies. 5 per cent respondents feel that training is other benefit from the society.

Table 6: Awareness of problems faced from Society

Which problems do you face regarding your Society membership?		Score
	Delayed payment	80%
	Low price	5%
	Increased workload for yourself	6%
	Difficulties to attend meetings	2%
	Too strict controls for quality	7%
	Others	-

Table No. 6 shows awareness of problems faced by Society. 80 per cent respondents get payment delayed and 5 per cent respondent get low price. 6 per cent members increased workload from themselves. 2 per cent members get difficulties to attend the meetings. Only 7 per cent respondents state that they face problem of too strict quality controls.

Table 7: Status of Economic situation among the members

How did your economic situation change since you entered the Society?		Score
	Did you purchase a vehicle after entering Society	56%
	Did you purchase a house after entering Society	11%
	How much gold u purchased after Society	14%
	Business expansion..stock/sales/no. of shops	9%
	Worse	-
	Same	-
	Better	10%

Table No. 7 imply economic situation of members. 56 members purchase vehicle after entering the society. 11 per cent members purchase their own house. 14 per cent member able to purchase gold. 9 per cent members able to expansion their business and only 10 per cent members got better economic situation.

Table 8: Awareness level of the women members about the Society

Awareness level of the Women members about the dairy Society?		Score
	What is the Share capital of the Society	99%
	Have you ever read the By- Law of the Society	75%
	Does Society own its Building?	yes
	Where does the Society owns its bank Account	SBI
	What is profit& loss Account?	27% Answering
	Where does the procured raw material go?	-
	When do you get Meeting Notice?	Before 7 days answer 98%
	Do Subject of the meeting mentioned in notice	yes
	Does the Society perform election for the members?	yes
	How many cooperatives acts are there	2
	What is meant by Registrar of Society	35% Answering
	Who conducts audit of society	yes
	Who appoints Chairman	Members
	How many sub committees are there	3(Recruitment, loan & recovery and administrative committees)

Table No. 8 no express the awareness level of the women members. The 99 percent respondents were aware of the share capital of the society. 75 percent of the respondents were aware of By- Laws of the society. 27 percent of respondents know what is profit & loss account. 98 per cent respondent are aware of meeting notice and know about the subject of the meeting as well as who conduct the meeting.

Table 9: Awareness of Business Expenses among the women members

Awareness of Expenses (for all production)		Score
	Raw material cost per month	23%
	Other cost per month or year	26%
	Labor per month	44%
	Other costs (specify)	7%

Table No. 9 indicates the awareness about business expenses among the women members. 23 per cent women know about the cost of raw material. 26 per cent women members know about the other cost of per month or year and 44 per cent women members know about the labour cost per month. And 7 per cent women's know about the other costs.

Table: 10 Overall Decision making activities among the women members

Explication	Score
Decision taken by woman	55%
Joint decision	43%
Decision taken mainly by male	2%

Table No. 10 no shows overall decisions making activities among the awareness of the women members. 55 per cent decisions are taken by women. 43 per cent decisions are taken jointly. Only 2 per cent decisions are taken by males.

Table No. 11 below shows the decision making about crops or which inputs to buy. 65 per cent women have participated in taking final decision. 33 per cent decisions are taken by jointly. And only by 2 per cent by others. 44 per cent women members take decisions about which crops to grow. 46 per cent jointly decisions taken. 10 per cent by others. The decision about when and who takes crops to market/sales-man 28 per cent by women and 72 per cent decision taken by jointly. The Other business decisions about construction of production facility are taken by 67 per cent by women and 33 per cent by jointly. The decisions about selection of inputs are taken by 45 per cent by women members and 33 per cent by jointly. The management of labour

decision is taken by 33 per cent by women member and 63 percent by jointly and only 4 percent by others. About health care of animals 30 per cent women members and 60 per cent decisions are taken by jointly and other by 10 per cent. How to use income from Business the 47 per cent women members take decision and 43 per cent by jointly. Others by 10 per cent. The sale of product women members 37 per cent and 53 per cent jointly decisions is taken and other 10 per cent.

Table 11: Decision making Participation

Domain		Score
Crops	Who takes decisions about which inputs to buy?	Women –65 % Joint –33 % Others - 2 %
	Who takes decisions about which crops to grow?	Women –44 % Joint – 46 % Others 10 %
	Who takes decisions about when and who takes crops to market/sales-man?	Women – 28 % Joint –72 % Others - % Unaware – %
Other Business	Who takes decisions about construction of production facility?	Women –67 % Joint – 33 % Others - %
	Who takes decisions about selection of inputs?	Women – 45 % Joint – 33 % Others -22 %
	Who takes decisions about management of labour?	Women –33 % Joint –63 % Others -4%
	Who takes decisions about health care of animals?	Women –30 % Joint –60% Others -10%
	Who use of income from Business?	Women –47 % Joint –43 % Others -10%
	Who takes decisions about the sale of product?	Women –37 % Joint – 53 % Others -10 %

Table 12: Social Participation

Leisure	Score
Do you feel comfortable speaking up in public, if only women are present?	55%
Do you feel comfortable speaking up in public, if also men are present?	45%
Never Speak	-
Are you satisfied with your time available for leisure activities such as visiting friends, watching TV, joining festivities, going to temple?	yes
Do you go for Tour/ Picnic during vacation?	yes
Who decided the venue for the vacation?	Women –82 % Joint –12 % Others -6 %

Table No. 12 described about social participation and comfortable speaking up in public by women and men. 55 per cent women member feel comfortable speaking up in public and 45 per cent men comfortable speaking up in public. 82 per cent women's taking decision of venue for vacation only 12 per cent decision taken by jointly and 6 per cent by others.

Table 13: Decision making status among the women members over Group member

Group member	Are you active member in any groups/association:	Score	Have you ever had a leadership role in this group?
	- producer/marketing group (not dairy co-operative)	28%	78%
	- water user's group	-	
	- forest user's group	-	
	- credit or microfinance group	67%	
	- mutual help or insurance group		
	- trade and business association	27%	
	- civic/charitable group	-	
	- local government (Panchayat)	20%	
	- religious group	55%	
	- women's group	98%	
	- other group (specify)	-	
	If not member in any group, why not?	2%	

Table No.13 indicates Decision making status among the women members over Group member for producer/marketing group, 28 per cent women respondent are active 67 per cent in credit or microfinance group and in trade and business association 27 per cent women. In local government (Panchayat) 20 per cent women's associated. 55 per cent in religious group. There are 98 per cent women groups. Only 2 per cent women members are in not active any groups. Over all 78 per cent women respondents are active in decision making status among the women members over Group member.

Table 14: Decision making status among the women members over Ownership of assets / Purchase, Sale or transfer of assets

Ownership of assets / Purchase, Sale or transfer of assets	Score	Who can decide whether to Purchase/sell/give away the item?
Agricultural land	5%	Women -57 % Joint -40 % Others -3 %
Large livestock (cattle buffalo)	55%	
Small livestock (goat, sheep, pig)	45%	
Poultry	15%	
Farm equipment	6%	
Means of transportation (bike, car, cycle, truck, bullock cart)	57%	
Cellphone	95%	

Table No.14 shows the Decision making status among the women members over Ownership of assets / Purchase, Sale or transfer of assets in Agricultural land, Large livestock, small livestock, Poultry, farm equipment, transportation, cell phone 57 per cent women members take decision and 40 per cent decisions are taken by jointly and only 3 per cent by others

IV. Summary of Findings:

Personal Profile of the Respondents

- Total of 55 respondents were selected from Scodwes.
- Most of the respondents were between the age group 18 years to 50 years. 33 respondents were in the age group of 36years to 50 years. Nearly 8 respondents were from the age group of above 50 years.
- 5 of the respondents were illiterate, 16 respondents completed their twelve years of schooling. 18 respondents were below SSC. Since the young age group is only 4 respondents, the graduation and post-graduation.
- Out of 55 respondents, All respondents were involved in agriculture.

Membership Profile of the Respondents:

- The 90 percent of respondents has awareness among the membership
- Only 57.71 percent of respondents participate in regular meeting.

- 64.28 percent of respondents have attended the training programmes offered by Society.

Awareness of cropping pattern:

- Nearly 50 percent respondent have the own land.
- The households are small and marginal farms with less than one acre land.
- The average land holding is 4-7 acres. 6 households owned more than 7 acre of land. 7 respondents are unaware of their land holding.

Awareness of Cooperative membership:

- 90.70 percent of respondents were aware of shareholders in Souharda and 9.30 percent were unaware of Shareholders.
- 91.42 percent respondents were aware of their membership with Souharda society.
- Only 57.71 percent of respondents participate in regular meeting. 64.28 percent of respondents have attended the training programmes offered by dairy.

Benefits from Cooperative society:

- 77 percent respondents feel that loan credit is also an important benefit from the Souharda societies.
- 13 percent felt marketing are other important benefits that they avail from the Souharda society
- 5 per cent respondents feel that training is other benefit from the Souharda society.

Economic situation among the members:

- Majority 99 percent of respondents felt that the economic situation is better since joined the Souharda cooperatives.

Awareness level of the Women members about the Souharda Society:

- 99 percent respondents are awareness of the share capital of the Souharda society.
- 75 percent of the respondents are aware of By- Laws of the society.
- Majority of the women respondents were aware about the building.
- Maximum respondents are aware of where the dairy holds its bank account
- 27 percent of respondents know what profit & loss account is all about.
- Nearly 98 percent respondents are aware of meeting notice.
- Maximum respondents know about the subject of the meeting.
- Maximum respondents are aware of the society's election for members.

Decision over Crop Activities:

- Especially, 65 per cent women have participated in taking final decision. 33 per cent decisions are taken by jointly
- Whereas 46 percent of respondents contribute their decision along with their male members towards the buying of crop inputs.
- The decision about crops to grow is decided by 44 per cent by women respondent and 46 per cent along with men members.

Decision over Ownership of assets / Purchase, Sale or transfer of assets:

- 57 per cent women members take decision and 40 per cent decisions are taken by jointly and only 3 per cent by others

Decision over Group member & holding Leadership:

- 98 percent of the respondents are members in women group.
- The 67%, 27% and 20% of respondents are active members in credit or microfinance group, trade and business association and local government (Panchayat) group. The remaining women don't participate in any group, mostly because of a lack of time availability.

V. Suggestions:

- Increasing women membership in Souharda cooperatives can recognize the potential of this segment as decision makers having practical knowledge about animal husbandry practices.
- Development training programs, which included areas such as visioning, persons, attended various training programmes.
- Special incentives should be given to the women Souharda cooperative societies in order to encourage participation of women in governance of the cooperatives
- Implement insurance for the women members and their families.

VI. Conclusions:

Souharda plays a significant role in women empowerment and equality to uplift the lives of rural women. As cooperatives are run on democratic system, they have inculcated in the members a more democratic approach regarding the problems of their lives and also increased their awareness of their rights in society.

Souharda aims to enhance the empowerment of women members and women societies in the state Karnataka. It has facilitated/ enabled them to earn more income, generating employment opportunity, get training in the management etc. The society has also supported the 'future' of its members Souharda

society has also inculcated a habit of thrift and savings by making them to use banking facilities availed to the members and Insurance schemes.

The present study has focused on different dimensions of economic empowerment and gender equality among the women members in Souharda cooperative Karnataka district. The aim of this study is to contribute to the understanding of the impact of members in a Society on women's equality and empowerment. The study implies that the members feel averagely empowered in terms of access to and control over credit, including the participation in groups and the ability to express ones opinion in public.

This study does neither claim that women cooperatives societies are bad for women empowerment nor that mixed-gender cooperatives do in general better. If women's empowerment is to be achieved then more shares have to be issued to women and women have to be encouraged to actively participate in meetings and committees. Women's participation has to go beyond the formal reservations of seats at the village level. Women should be encouraged to access loans to purchase. They should be trained in book keeping and business planning and build-up networks. Women should be involved in the cooperative society organizations not only at the village but also at the district and state level. It is hence an important task for future research to improve tools to measure women's empowerment and to try to implement them in monitoring and evaluation practices.

From the present study, it is identified the gradual impact on women empowerment and gender equality in women co-operatives societies. In rural areas women members in the society are becoming self reliant, no doubt they improve in the standard of living gradually.

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10

The Role of Cooperative Banks in Rural Development and Financial Inclusion in India

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Abstract:

This paper examines the role of cooperative banks in encouragement rural development and advancing financial inclusion in India. Cooperative banks are integral to rural economies, providing essential financial services to underserved populations, particularly in areas where traditional banking infrastructure is limited. They support agriculture, small enterprises, and marginalized groups by offering affordable credit, savings opportunities, and financial literacy programs. Through their involvement in key government schemes like the Pradhan Mantri Jan Dhan Yojana (PMJDY) and the Kisan Credit Card (KCC) scheme, cooperative banks facilitate economic stability, reduce poverty, and promote sustainable livelihoods. Despite facing challenges such as limited resources and regulatory hurdles, cooperative banks continue to empower rural communities by adapting to digital innovations and prioritizing community welfare. This study underscores their potential as vital agents of socioeconomic transformation in rural India and suggests strategies to enhance their impact.

Keywords:

Cooperative Banks, Financial Inclusion, Rural Development, Agriculture Finance, Digital Banking

1. Introduction:

India's rural economy is the backbone of the nation, with a large portion of the population residing in rural areas and depending on agriculture and small-scale enterprises. Financial inclusion has become a powerful tool for

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promoting sustainable livelihoods, reducing poverty, and fostering equitable growth within these communities. By enabling individuals and small businesses to access essential financial services such as credit, savings, and insurance, financial inclusion helps manage income fluctuations, supports investments in growth, and mitigates financial risks.

Globally, The G20 committed to advance financial inclusion worldwide and reaffirmed its commitment to implement the G20 High-Level Principles for Digital Financial Inclusion. The World Bank Group considers financial inclusion a key enabler to reduce extreme poverty and boost shared prosperity. Financial inclusion has been identified as an enabler for 7 of the 17 Sustainable Development Goals.

Financial inclusion is globally recognized as a driver of economic growth and social equity. For example, Kenya's M-Pesa showcases how digital financial systems can empower marginalized groups and stabilize economies. Great developments have been made toward financial inclusion – the number of adults without access to an account has steadily declined from 2.5 billion in 2011 to 1.7 billion in 2017 to 1.4 billion in 2021. As of 2021, 76% of the world's adult population had an account.

In India, financial inclusion is especially vital in rural areas. According to the world bank 1407.6 million - Adult population unbanked 229.0 million. Over 65% of India's population lives in rural regions with limited access to formal banking. Financial inclusion bridges this gap, providing resilience against economic fluctuations and driving sustainable growth Programs like Pradhan Mantri Jan Dhan Yojana (PMJDY) and Kisan Credit Card (KCC) have made significant progress. As of 2023, PMJDY facilitated the opening of over 490 million accounts, integrating unbanked households into the financial system

The Role of Cooperative Banks:

Cooperative banks are critical to advancing financial inclusion and rural development in India. Founded on principles of collective ownership and democratic governance, cooperative banks are community-cantered institutions well-suited to meet the diverse financial needs of rural populations. They often operate where traditional banking infrastructure is limited or absent, offering more accessible services to marginalized groups, including farmers, artisans, and small entrepreneurs, through affordable credit, deposit facilities, and financial literacy programs.

These banks are instrumental in implementing government-led financial

inclusion schemes such as PMJDY and KCC, which aim to provide formal banking services to unbanked individuals, extend timely credit to farmers, and offer subsidized loans for agricultural activities. By leveraging their extensive local networks, cooperative banks effectively deliver these programs, boosting agricultural productivity, reducing reliance on informal lending, and stabilizing rural incomes.

Moreover, cooperative banks have increasingly embraced digital banking technologies to expand their reach to remote areas through mobile banking, POS systems, and digital payments. This focus on digital transformation aligns with broader goals of financial inclusion, as it bridges digital divides, supports local economic growth, and fosters economic stability in underserved regions.

In contrast to commercial banks, which often focus on urban markets, cooperative banks prioritize rural financial inclusion, emphasizing accessibility, community welfare, and economic stability. Their stable lending practices and community-oriented approach foster financial resilience, especially in regions dependent on agricultural cycles and seasonal income patterns. Despite challenges such as limited resources, regulatory compliance issues, and competition from larger financial institutions, cooperative banks remain essential to India's financial system. Strengthening cooperative banks through policy support, governance improvements, and capacity-building initiatives could enhance their role as agents of inclusive economic development, ultimately contributing to sustainable growth across India's rural economy.

1.2 Objectives of the Study:

To examine the impact of cooperative banks on promoting financial inclusion in underserved rural areas – understanding how these banks provide essential financial services to populations with limited access to traditional banking.

To analyze the role of cooperative banks in supporting agricultural productivity and rural economic stability – assessing how these banks contribute to sustainable agricultural practices and income stability for rural households.

To evaluate cooperative banks' involvement in government schemes like the Pradhan Mantri Jan Dhan Yojana (PMJDY) and Kisan Credit Card (KCC) scheme – exploring their effectiveness in delivering these initiatives to rural populations and supporting poverty alleviation.

To identify the challenges faced by cooperative banks in expanding their services and improving operational efficiency – examining resource limitations, governance issues, and regulatory compliance barriers that impact their scalability.

1.3 Methodology:

The research adopts a qualitative approach to analysis of cooperative banks operating in rural India. Data was gathered from various secondary sources, including government reports, academic journals, and annual reports from cooperative banks and regulatory bodies. This information was used to assess the roles, contributions, and challenges faced by cooperative banks in advancing rural development and financial inclusion. Additionally, qualitative data from case studies and prior research on government schemes like PMJDY and KCC was analyzed to understand the effectiveness of cooperative banks in implementing these initiatives. The study also explored potential strategies, such as digital integration and governance improvements, to enhance cooperative banks' impact on rural economies.

2.1 Review of literature:

Kumar and Singh analyze the crucial role cooperative banks play in enhancing rural development. Their study highlights how these banks provide essential credit facilities to farmers and small businesses, thereby fostering entrepreneurship. They found that cooperative banks contribute significantly to the economic empowerment of rural communities. The authors argue that effective policies can further enhance the impact of these banks. This study serves as a compelling case for increasing investment in cooperative banking initiatives.

Reddy investigates the relationship between cooperative banks and financial inclusion in rural India. The findings indicate that these banks play a pivotal role in providing access to financial services for marginalized populations. By analysing empirical data, the study shows that cooperative banks help reduce poverty and improve living standards. Reddy emphasizes the need for policies that support the expansion of cooperative banking services. The research contributes valuable insights into how cooperative banks can further enhance financial inclusion.

Bansal and Sethi conduct a comprehensive review of literature regarding the impact of cooperative banks on rural development. Their analysis reveals that these banks not only provide credit but also support agricultural development and rural entrepreneurship. The authors highlight various studies that

showcase the positive socioeconomic changes driven by cooperative banking. They also discuss challenges such as regulatory constraints and the need for modernization. This review serves as a foundation for future research on cooperative banks' effectiveness in rural areas.

Gupta's empirical study examines how cooperative banks facilitate financial inclusion in rural India. The research highlights the banks' unique lending practices that cater specifically to the needs of farmers and small enterprises. Gupta finds that cooperative banks significantly improve access to financial resources, thus promoting economic development. The study underscores the importance of cooperative banks in fostering social equity in rural communities. Gupta calls for enhanced support from the government to strengthen these institutions.

Sahu and Sahu discuss the various challenges and opportunities faced by cooperative banks in promoting rural development. They identify regulatory hurdles and competition from microfinance institutions as significant obstacles. However, the authors also point out that cooperative banks have the potential to leverage technology to improve service delivery. The study highlights successful case studies where cooperative banks have significantly impacted rural livelihoods. Overall, Sahu and Sahu advocate for policy reforms to harness the full potential of cooperative banking in rural areas.

2.2 Research Gap:

While cooperative banks play a crucial role in promoting financial inclusion and rural economic development in India, existing literature often focuses on commercial and regional rural banks, leaving a gap in understanding the unique contributions of cooperative banks. Additionally, limited research explores the challenges these banks face, particularly in terms of governance, capital constraints, and technological barriers in reaching underserved rural populations. Moreover, there is a lack of in-depth analysis on how cooperative banks can Integrating digital banking technologies to overcome operational challenges and expand their outreach in rural areas. This study seeks to address these gaps by investigating cooperative banks' roles, challenges, and potential improvements in rural financial inclusion.

2. The Role of Cooperative Banks in Rural Development:

2.1 Cooperative Banks and Financial Inclusion in Rural India:

With a significant portion of India's population residing in rural areas, financial inclusion remains essential for equitable economic growth and stability. Access to financial services empowers rural populations to manage

income fluctuations, invest in livelihoods, and mitigate financial risks. Cooperative banks, with their community-oriented model and extensive reach, uniquely drive these initiatives by providing accessible services such as savings accounts, credit facilities, and insurance to underserved households, farmers, and small enterprises. Embedded within rural communities, cooperative banks bridge gaps in formal banking access and play a vital role in fostering sustainable livelihoods, reducing poverty, and promoting rural economic growth.

2.2 Cooperative Banks in Government Financial Schemes:

Cooperative banks serve as primary agents in executing government-led financial inclusion schemes targeted at rural populations. They contribute to the success of major initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY) and the Kisan Credit Card (KCC) scheme, utilizing deep-rooted community networks to reach underserved populations effectively. Their support in account opening and microcredit offerings enhances agricultural productivity, stabilizes income, and reduces dependence on informal credit sources. Below are the major schemes that cooperative banks facilitate and the essential roles they play.

Pradhan Mantri Jan Dhan Yojana (PMJDY):

- **Objective:** Launched in 2014, PMJDY expands financial inclusion by offering basic banking services to unbanked households, particularly in rural areas. It features no-minimum-balance accounts, Rupay debit cards, and simplified Know Your Customer (KYC) requirements.
- **Cooperative Banks' Role:** Cooperative banks bring PMJDY's benefits to rural regions, leveraging proximity and familiarity with local communities to open zero-balance accounts and reduce dependence on informal lenders. Their involvement in PMJDY fosters a more financially inclusive economy.

The government introduced the PMJDY programme in 2014 aimed at making bank accounts accessible to all Indians. This programme has directly raised banking penetration in India, expanding the market for financial services sector in the country. Features: PMJDY includes an INR 5,000 overdraft facility for Aadhaar-linked accounts and a RuPay debit card with inbuilt INR 1 lakh accident insurance cover. The performance of PMJDY in terms of accounts opened, deposit balance and average deposit balance over time.

Rapid financial inclusion of women: In 2014, out of total savings accounts, there were overall 27% female accounts. However in 2019, under PMJDY,

women accounts constitute 53% of the total Jan Dhan accounts. Rapid growth in deposits in the PMJDY accounts: Against an average balance of INR 1,065 in accounts opened under PMJDY in March 2015, the average balance in 2019 has grown to INR 2,725. RuPay debit cards: To ease the transactions and boost cashless economy, a total of 27.91 crore RuPay debit cards have been issued till March 2019 to PMJDY account-holders. Life insurance cover: A life insurance cover of INR 30,000 has been assured to all the account holders who have opened a bank account under PMJDY between 2014 and 2015.

Table 1: Beneficiaries as on 15/01/2025 (All figures in Crore)

Bank Name / Type	Number of Beneficiaries at rural/semiurban centre bank branches	Number of Beneficiaries at urban metro centre bank branches	No Of Rural-Urban Female Beneficiaries	Number of Total Beneficiaries	Deposits in Accounts (In Crore)	Number of Rupay Debit Cards issued to beneficiaries
Public Sector Banks	26.7	15.81	23.41	42.51	191815.1	32.2
Regional Rural Banks	8.71	1.48	5.92	10.18	47644.04	3.7
Private Sector Banks	0.74	0.96	0.93	1.7	7136.72	1.39
Rural Cooperative Banks	0.19	0	0.1	0.19	0.01	0
Grand Total	36.33	18.25	30.37	54.58	246595.9	37.29

Source: Pradhan Mantri Jan-Dhan Yojana | Department of Financial Services | Ministry of Finance

Kisan Credit Card (KCC) Scheme:

- **Objective:** Established in 1998, the KCC scheme provides farmers with affordable and timely credit to purchase essential agricultural inputs like seeds, fertilizers, and equipment, aligning with seasonal needs.
- **Cooperative Banks' Role:** Cooperative banks facilitate KCC loans with flexible repayment options suited to the agricultural cycle. Their rural presence allows them to reach farmers effectively, enhancing agricultural

productivity, income stability, and reducing reliance on high-interest informal loans.

- about 49 per cent of cumulative KCCs have been issued by commercial banks followed by about 35 per cent by cooperative banks and 16 percent by Regional Rural Banks. In fact, the share of cooperative bank in total KCC issued has come down from as high as 70% in 1999-2000 to 20.7% during 2012-13 and that of commercial bank has gone up from 26.6% to 63.7% during the same period. The high share of Cooperative Banks (52.9%) as compared to RRBs (16.7%) and Commercial Banks (30.4%) in total number of operative/ live KCC (as on 31 March 2015) indicates that despite the fact that the number of cards issued by cooperative bank is continuously declining, the farmers prefer to keep the KCC with cooperative banks alive, may be due to the advantages like availability of good quality fertilizers, seed.

Table 2: State/UT -wise number of operative KCC accounts and amount outstanding as on September 30, 2023

(Accounts in Actual, Amount in Rs. Crore)

No. of Kisan credit card Issued (In ' 000)							
Year	Cooperative Banks	Proportion in total (%)	RRBs	Proportion in total (%)	Commercial Banks	Proportion in total (%)	Total
2009- 10	1743	19. 35	1950	21. 65	5313	58. 99	9006
2010- 11	2812	27. 65	1774	17. 45	5582	54. 89	10169
2011- 12	2961	25. 18	1995	16. 96	6804	57. 86	11760
2012- 13	2691	20. 73	2048	15. 78	8243	63. 50	12982
2013- 14	3176	22. 84	2179	15. 67	8549	61. 49	13904
2014- 15	3061	23. 67	1549	11. 98	8324	64. 36	12934
2015- 16	1519	12. 47	2237	18. 36	8429	69. 18	12185
2016- 17	35883	50. 20	12271	17. 17	23320	32. 63	71474
2017- 18	33495	48. 39	12193	17. 62	23528	33. 99	69216
2018- 19	30414	45. 87	12253	18. 48	23633	35. 65	66300
2019- 20	28938	44. 33	12197	18. 68	24145	36. 99	65280
2020- 21	30183	40. 92	12891	17. 47	30696	41. 61	73770
2021- 22	31131	43. 63	13348	18. 71	26870	37. 66	71349
2022- 23	31389	42. 68	13868	18. 86	28290	38. 47	73547

Source: RBI and NABARD

Interest Subvention Scheme for Short-Term Crop Loans:

- **Objective:** This scheme offers interest rate subsidies to make crop loans more affordable, encouraging timely repayment and reducing financial strain on farmers.
- **Cooperative Banks' Role:** Acting as key conduits for this scheme, cooperative banks disburse loans at subsidized rates, supporting rural farmers in managing crop cycles, reducing income volatility, and fostering rural economic stability.

Self-Help Group (SHG) – Bank Linkage Program:

- **Objective:** Initiated by NABARD, this program connects SHGs with formal banking institutions, empowering women and marginalized communities through savings and microcredit.
- **Cooperative Banks' Role:** Cooperative banks provide microloans and savings facilities to SHGs, enhancing financial independence among rural women and marginalized groups and supporting income-generating activities.

Table 3: Growth of Savings of SHGs (Agency-wise Position)
(Rs. in Crores)

Year	Commercial Banks	Regional Rural Banks	Co-operative Banks	Total
2009-10	3,674 (40,52,915)	1,299 (18,20,870)	1,226 (10,79,465)	6,199 (69,53,250)
2010-11	4,230 (43,23,473)	1,351 (15,05,076)	1,435 (19,83,397)	8,701 (74,61,946)
2011-12	4,153 (46,18,086)	1,300 (21,27,368)	1,098 (12,14,895)	6,551 (79,60,349)
2012-13	5,533 (40,76,986)	1,527 (20,38,008)	1,157 (12,02,557)	8,217 (73,17,551)
2013-14	6,631 (40,22,810)	1,960 (21,11,760)	1,306 (12,94,390)	9,897 (74,29,500)
2014-15	6,631 (41,35,821)	2,346 (21,61,315)	2,083 (14,00,333)	11,060 (76,97,469)
2015-16	9,034 (41,10,111)	2,484 (22,56,811)	2,173 (15,18,966)	13,691 (79,03,002)
2016-17	10,170 (44,44,428)	3,632 (25,38,863)	2,312 (15,46,129)	16,114 (85,76,875)
2017-18	11,664 (46,33,712)	5,807 (28,07,744)	2,321 (15,32,612)	19,592 (87,44,437)
2018-19	13,240 (54,76,914)	7,692 (30,78,473)	2,392 (14,58,855)	23,324 (1,00,14,243)
2019-20	15,662 (54,73,833)	7,811 (32,81,697)	2,679 (15,01,517)	26,152 (1,02,43,323)

Source: Status of microfinance in India 2007-08 to 2019-20, NABARD

Note: Figures in parentheses indicate the cumulative numbers of SHG.

Table 4: Bank Loans disbursed to SHGs during the Year from 2007-08 to 2019-20 (Agency-wise Position)

(Rs. in crores)

Year	Commercial Banks	Regional Rural Banks	Co-operative Banks	Total
2009-10	9,780 (9,77,521)	3,333 (3,76,797)	1,340 (2,32,504)	14,453 (15,86,822)
2010-11	9,724 (6,69,781)	1,626 (2,29,620)	1,649 (2,09,140)	12,665 (11,08,541)
2011-12	9,942 (6,00,807)	2,506 (3,04,809)	1,567 (2,42,262)	14,065 (11,47,878)
2012-13	13,385 (7,35,577)	5,626 (3,10,210)	1,574 (2,71,223)	20,585 (12,19,832)
2013-14	16,037 (7,67,253)	6,283 (3,33,420)	1,647 (2,55,748)	23,967 (13,56,421)
2014-15	17,334 (8,55,724)	7,725 (2,22,139)	2,523 (2,48,375)	27,582 (16,26,238)
2015-16	15,185 (11,32,338)	9,165 (4,70,093)	2,740 (2,52,724)	27,090 (18,55,155)
2016-17	24,297 (11,16,442)	11,613 (5,57,540)	2,871 (2,24,138)	38,781 (18,98,120)
2017-18	28,708 (12,72,886)	15,119 (7,82,563)	3,359 (2,05,683)	47,186 (22,61,132)
2018-19	34,492 (12,13,560)	15,593 (9,40,018)	4,273 (2,44,675)	54,358 (26,28,040)
2019-20	48,431 (17,06,999)	24,231 (10,93,788)	4,997 (2,56,115)	77,659 (31,46,002)

Source: Status of micro Finance in India 2007-08 to 2019-20, NABARD

Note: Figures in parenthesis indicate the number of SHGs.

Atal Pension Yojana (APY):

- **Objective:** APY aims to provide social security to workers in the unorganized sector by offering retirement benefits, addressing income security in rural areas.
- **Cooperative Banks' Role:** Cooperative banks enroll rural customers in the APY scheme, promoting awareness about retirement planning and supporting income security. Their presence in remote areas ensures effective outreach to those unfamiliar with formal pension schemes.

- APY has made significant strides. As of end-March 2022, the total subscriber enrolments stood at 401.27 lakh. The annual enrolments have been improving. Even in the peak of the COVID pandemic year 2020-21, nearly 80 lakh persons were enrolled, and in the last financial year 2021-22, almost 100 lakh subscribers were enrolled. This was the highest enrolment in a single financial year ever. One could gauge the coverage from the fact that only 36 countries out of 235 countries in the world have a population of over 400 lakhs.
- The Public Sector Banks and Regional Rural Banks together are contributing an average of 88 percent of total enrolment since its launch in 2015.

Table 5: Yearwise Enrollments in APY by banking Sectors (Rs. in lakh)

Category of Banks	31.03.2016	31.03.2017	31.03.2018	31.03.2019	31.03.2020	31.03.2021	31.03.2022
PSBs	16.93	30.47	65.53	107.2	156.75	212.52	282.61
Private Banks	2.18	4.97	8.74	11.45	15.63	19.86	25.08
Small Finance	-	-	-	0.09	0.16	0.35	0.86
Payment Bank	-	-	-	-	0.48	3.44	8.19
RRBs	4.76	11.15	19.87	31.71	43.3	57.11	75.28
DCCBs	0.21	0.3	0.34	0.39	0.49	0.55	0.63
SCBs	0	0.01	0.01	0.01	0.01	0.05	0.06
UCBs	0	0.04	0.11	0.14	0.17	0.2	0.24
DOP	0.75	1.9	2.45	2.7	3.03	3.32	3.62
Total	24.85	48.84	97.05	154.18	223.02	302.16	401.27

Source: <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1751093> & Economic Times (April 21, 2022)

2.3 The Role of Cooperative Banks in Achieving Financial Inclusion:

1. **Affordable Financial Services:** Cooperative banks are well-positioned to provide affordable financial services, including savings accounts, loans, and insurance, to underserved and unbanked populations. These banks address the gaps in access to formal banking services, ensuring financial resources are more accessible to marginalized groups.
2. **Extending Outreach to Rural Areas:** In rural areas where formal banking services are often scarce, cooperative banks act as a bridge by establishing branches and outreach programs. Their presence in these

underserved regions brings essential financial services closer to the rural populace, fostering financial inclusion at the grassroots level.

3. **Supporting Small and Micro-Enterprises:** Small and micro-enterprises frequently encounter challenges in securing credit from traditional financial institutions. Cooperative banks can address this issue by providing accessible credit facilities tailored to these enterprises. This not only promotes entrepreneurship but also strengthens the foundation for small business growth and economic development.
4. **Empowering Women:** Women often face unique barriers in accessing financial services. Cooperative banks can champion financial inclusion for women by offering tailored products such as microfinance loans and other customized solutions. These initiatives empower women economically and contribute to gender equality in financial participation.
5. **Leveraging Digital Solutions:** By adopting digital innovations such as mobile banking, online banking platforms, and digital wallets, cooperative banks can enhance their operational efficiency and expand their outreach. Digital solutions help lower transaction costs, streamline service delivery, and improve the overall banking experience for their customers.
6. **Promoting Financial Literacy and Education:** Financial literacy programs offered by cooperative banks play a significant role in equipping their members with the knowledge and skills to make informed financial decisions. By fostering better financial understanding, these programs contribute to improved personal financial management and economic resilience.

3. **Challenges and Performance of Cooperative Banks in Rural India:**

Cooperative banks play an integral role in fostering financial inclusion and economic stability in rural India. By providing affordable credit, savings, and insurance services to underserved populations, these institutions contribute significantly to poverty alleviation and rural development. However, despite their vital role, cooperative banks face several challenges that hinder their scalability, operational efficiency, and ability to meet the evolving needs of rural communities.

1. **Limited Financial Resources and Capital Constraints**
2. **Infrastructure and Accessibility Limitations**
3. **Governance and Management Issues**

4. **Regulatory and Compliance Barriers**
5. **Competition from Commercial Banks and Fintech**
6. **Technological Adoption Barriers**
7. **Economic and Market Vulnerability**
8. **Integrating Fintech Solutions to Enhance Cooperative Banking in Rural India**
9. **Enhancing Access to Financial Services**
10. **Promoting Digital Payments**
11. **Strengthening Cooperative Operations**
12. **Expanding Financial Inclusion for Marginalized Groups**
13. **Enhancing Financial Literacy and Awareness:**
14. **Improving Risk Management**
15. **Fostering Community Engagement**
4. **Relationship Between Cooperative Schemes, Rural Economic Growth, and Poverty Alleviation:**

Cooperative societies play a crucial role in fostering rural economic development and alleviating poverty through various mechanisms. Their efforts not only support financial inclusion but also drive community development and social empowerment.

1. Contributions to Rural Economic Growth:

- **Access to Finance:** Cooperatives provide affordable credit, enabling small farmers and entrepreneurs to invest in their businesses, thereby stimulating local economic growth.
- **Collective Bargaining Power:** By pooling resources, cooperatives secure better input and output prices, increasing the income of their members.
- **Job Creation:** The expansion of cooperative activities creates employment opportunities, reducing rural unemployment and driving economic activity.

2. Promotion of Sustainable Livelihoods:

- **Income Diversification:** Cooperatives encourage members to diversify their income sources, fostering financial resilience and stability.
- **Skill Development:** They organize training programs that enhance productivity and equip members with skills for sustainable livelihoods.

3. **Impact on Poverty Alleviation:**

- **Income Improvement:** Through better market access and financial support, cooperatives help improve members' incomes and living standards.
- **Empowerment of Marginalized Groups:** Cooperatives prioritize inclusivity, creating economic opportunities for women and disadvantaged communities.
- **Social Safety Nets:** They offer mutual support systems to protect members during financial crises, ensuring a safety net for vulnerable populations.

4. **Community Development and Social Cohesion:**

- **Social Capital:** By fostering solidarity among members, cooperatives build social capital that strengthens community resilience.
- **Local Investment:** Profits generated by cooperatives are reinvested in community development projects, leading to improved rural infrastructure and enhanced quality of life.

These initiatives demonstrate how cooperative societies drive inclusive economic growth and contribute to the well-being of rural communities. By addressing key challenges and enhancing their operational efficiency, cooperatives can further strengthen their role in rural development and poverty alleviation.

Future Research Recommendations:

Given the rapid evolution of financial services, future research could explore three critical areas for cooperative banks in rural India:

1. **Digital Banking Integration:** Investigate the potential of digital banking to expand cooperative banks' reach. Future studies could assess how digital transformation affects customer engagement and financial literacy in rural areas, examining both the benefits and the obstacles, such as digital literacy and infrastructure challenges.
2. **Fintech Collaboration:** Study cooperative banks' collaborations with fintech companies, focusing on joint ventures that streamline services, enhance loan accessibility, and improve digital payment options. Research could evaluate the impact of these partnerships on financial inclusion, especially among rural and marginalized communities.
3. **Governance Enhancements for Scalability:** Examine how improved governance and risk management practices can enhance scalability and outreach for cooperative banks. Studies could address the role of regulatory reforms, professional management, and technology-driven transparency initiatives in boosting cooperative banks' operational resilience and service efficiency.

5. Conclusion:

Cooperative banks play a vital role in rural development and financial inclusion in India by providing accessible financial services to underserved communities. They empower farmers, small businesses, and marginalized groups, contributing to economic resilience, poverty reduction, and sustainable livelihoods. Initiatives like PMJDY and KCC have significantly supported poverty alleviation and income stability.

However, cooperative banks face challenges such as limited resources, governance issues, regulatory hurdles, and competition. Addressing these challenges through strategic reforms, investments in digital technologies, and improved governance can enhance their efficiency and impact. With these improvements, cooperative banks can expand their reach, strengthen rural economies, and drive inclusive growth, contributing to a more equitable and sustainable future.

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Cooperative Societies in India: Their role as an effective wheel in Implementing Sustainable Development Goals (SDGs) in Rural India

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Abstract:

Cooperative societies have historically played a crucial role in various sectors of the Indian economy, including agriculture, finance, and consumer goods. Since their inception, Cooperatives have been considered an effective tool perfectly suited for implementing rural-based government-sponsored programmes for rural development as they have inherent advantages in tackling the problems of poverty alleviation and employment generation.

The government took many initiatives via the Ministry of Cooperation at the national level to oversee policy implementation, ensuring alignment with the Sustainable Development Goal SDG 16 on Peace, Justice, and Strong Institutions, and promoting transparent and responsive governance structures. Furthermore, the Ministry of Cooperation initiative of integrating Common Service Centre (CSC) services with Primary Agricultural Credit Societies (PACS) supports SDG 9 (Industry, Innovation, and Infrastructure) and SDG 10 (Reduced Inequality) by expanding rural access to government services and digital infrastructure. The digitalization of the CRCS portal enhances communication and operational efficiency, contributing to SDG 9 through technological integration in cooperative governance. Initiatives such as distributing micro-ATM cards and Rupay Kisan Credit Cards align with SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth) by improving financial inclusion and economic opportunities in rural areas.

Additionally, the establishment of national-level multi-state cooperative societies like Bhartiya Beej Sahakari Samiti Limited (BBSSL) and National Cooperative Organics Limited (NCOL) supports SDG 2 (Zero Hunger), SDG 15 (Life on Land), SDG 12 (Responsible Consumption and Production), and SDG 3 (Good Health and Well-Being) by promoting sustainable agricultural practices, ensuring availability of quality seeds, supporting organic farming,

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and enhancing food security. Similarly, the formation of National Cooperative Exports Limited (NCEL) focuses on exports and farmer prosperity, aligning with SDG 8 and SDG 12 through sustainable economic growth and responsible agricultural practices.

Keywords:

Cooperative Societies, Sustainable Development Goals (SDGs), Government Schemes

Methodology:

The study adopts a mixed-methods approach, combining quantitative and qualitative data. Quantitative data is gathered through surveys and analysis of secondary data from government reports, cooperative records, and SDG progress metrics. Qualitative data is collected via interviews and focus groups with key stakeholders, including cooperative members and officials of the cooperative department.

Introduction:

The Cooperative Movement in India has been beneficial to large strata of the Indian population right from the promulgation of the Cooperative Credit Societies Act in 1904 to its amendment in 1912, the cooperative movement was a movement of relief and was largely concentrated on rural credit mobilization and disbursements to farmers.

Following are the milestones of the co-operative movements in India:

- In 1948, the Parliament of India enacted the Multi-State Cooperative Societies Act to remove the plethora of laws governing the same types of societies.
- In 1958, the National Development Council (NDC) recommended a national policy on cooperatives and also for training of personnel and setting up of co-operative marketing societies.
- Government of India declared a National Policy on Co-operatives in 2002.
- In a Historic move, the Honorable Prime Minister announced the creation of a separate Ministry to provide a separate administrative, legal and policy framework for strengthening the cooperative movement in the country. The Ministry's creation was announced on 6th July 2021 along with its vision statement "Sahkar se Samridhi" (Prosperity through cooperation)

- Recently, the Lok Sabha passed the Multi-State Cooperative Societies (Amendment) Act which was aimed at overhauling the Multi-State Cooperative Societies Act, of 2002, which was enacted 20 years ago.

This study aims to understand the role of cooperatives in their contribution to achieving the SDGs, and the impacts of recent government initiatives on enhancing their roles in sustainable development in India. This research will provide insights into the effectiveness of government initiatives and policy frameworks designed to support cooperative growth.

A field study is performed in some cooperative societies to understand the impact of government initiatives on sustainable development goals. Based on this proposition the study is designed to study the profile of the district, governance and management of the societies, financial health of the societies and member perception in line with the SDG parameters.

State	District	Name of the Cooperative Society
Odisha	Keonjhar	Tartara Service Cooperative Society
		Fakirpur Service Cooperative Society
		Keshadurapal Service Cooperative Society
	Mayurbhanj	Shyamakhunta LAMPCS
		Rasagobindapur LAMPCS
		Chitrada LAMPCS
Haryana	Gurgaon	The Sancholi PACS
UP	Lucknow	Pradeshik Cooperative Federation Limited
Gujrat	Anand	Mujkuva Milk Producers Cooperative Society Ltd.

1. Field Input from Odisha:

Cooperative 1 – Tartara Service Cooperative Society, Keonjhar, Odisha

The Tartara Service Cooperative Society has 2905 members. The members transact with the Society for fertilizer and seeds. In addition, they avail loans. MARKFED supplies IFFCO fertilizer to the society, whereas Odisha Seed Corporation supplies seed. The society has its own administrative building with a storage capacity of 300 Metric Tons (Semi-damaged goods), 50 Metric

Tons (Good Condition) and 50 Metric Tons (Fully damaged goods). Apart from seed and fertilizer supplies, the Society procures paddy at a minimum support price (MSP). The society's catchment area consists of eighteen villages.

The society is thoroughly computerized and is in the process of getting linked with various initiatives of the Ministry of Cooperation like CSC services, LPG distributorship and the world's largest grain storage scheme. By diversifying their business activities, Tartara Service Cooperative Society will create job opportunities for members and local communities hence contributing towards SDG 8 of decent work and economic growth. Tartara Service Cooperative Society with diversified storage capacities, provides employment and economic stability to its members across 18 villages. Procurement of farm produce at Minimum Support Price can provide a stable income for farmers and contribute to food availability hence achieving SDG 2.

Cooperative 2 – Fakirpur Service Cooperative Society, Keonjhar, Odisha

The Fakirpur Service Cooperative Society has 3331 members. The society has its own administrative building with a storage capacity of 300 Metric Tons. The society's catchment area consists of five villages. Apart from seed and fertilizer supplies, the Society procures paddy at a minimum support price (MSP). MARKFED supplies IFFCO fertilizer to society. The society is already linked with the Common Service Centre and the society's bye-laws have been amended as per the model bye-laws.

The society can also be encouraged to provide short-term credit, which can help farmers manage their finances and invest in farming activities. This support is crucial for smallholder farmers, reducing their vulnerability to financial shocks and helping them escape poverty cycles thereby contributing to the SDG 1 of Poverty Reduction. The members of society are aware of the new initiatives of the Ministry of Cooperation and are in the process of getting linked to these initiatives.

Cooperative 3 – Keshadurapal Service Cooperative Society, Keonjhar, Odisha

Keshadurapal Service Cooperative Society has its own land and godowns. The society operates in its own building. The society has two Personal Computers with one printer. Computerization of the society is completed with State launched software, only Intra Networking not inter-networking. On discussion it's found that the members are well aware about the initiatives of

the Ministry of Cooperation and is already linked to the common service centre. They have decided to go for petrol pump business. Society's bye-laws are also amended as per the model bye-laws provided by the Ministry of Cooperation. The members transact with the Society for fertilizer and seed with MARKFED supplying IFFCO fertilizer to the society. The society is actively involved in sustainable agricultural practices among the members, reducing the environmental impact of farming practices. By managing resources like fertilisers and seeds efficiently, cooperatives ensure that inputs are used responsibly, reducing waste and improving productivity thereby contributing to Sustainable Development Goal 12 of responsible consumption and production.

Observation from the Study:

It is observed from the study that except for a few primary level cooperative societies, the rest are functioning with low to moderate growth. Even though they are undertaking routine activities such as short-term Agri finance, fertilisers and seed distribution and paddy procurement business.

It is also found that the bye-laws of all societies in Odisha state has already been amended as per the model bye-laws formulated by the Ministry of Cooperation, State government of India.

In the Keonjhar district also it has already been implemented.

It is learned from the discussion with the DRCS and ARCS along with the officials of PACS to whom visited that most of them are aware of the three newly constituted national level societies such as seeds, organics and export. Some of the societies have already taken or applied for the membership of these societies. The new business initiatives of the state government for encouraging the PACS to undertake different new businesses for diversification in their business portfolio. Some of the societies have already taken the new business initiatives and some are in the process.

As per the initiative of the Ministry of Cooperation, new PACS have been formed in the Anandpur Circle of Keonjhar District but the land is yet to be allotted for their office and infrastructure. They have already started their operation only in short-term Agri finance from August 2023 onwards from the source (old societies) from where the request was created. The asset-liability distribution and imbalance sharing are in progress. If some of the new societies looking into the potentiality of their area of operation will be adopted by Multi-State Cooperative Societies at least some of the infrastructural

requirements like furniture, fixtures, computers etc. can be provided which will smoothen their work for making them strengthen.

Cooperative 4 – Shyamakhunta LAMPCS, Mayurbhanj, Odisha

Shyamakhunta is the Large-sized Adivasi Multipurpose Cooperative Society in the Mayurbhanj district of Odisha. It has 5388 members. The society is governed by a 13- member Board of Directors (11 men and 2 women). The board members are elected after every five years. According to the cooperative staff, the Board of Directors hold monthly meetings. The society consists of 144 villages under its area of operation. Society has its administrative building and two godowns of 30 metric tons each. The members are involved in the fertilisers and seed business along with the paddy procurement.

The society is thoroughly computerized and the Bye-laws of the society are also amended as per the model bye-laws formulated by the Ministry of Cooperation. Employment opportunities are generated through the cooperative's operations, contributing to decent work for members and the community. Training may be provided by the state government to the members of society thereby enhancing staff skills and contributing to employability. (SDG 8)

Cooperative 5 – Rasagobindapur LAMPCS, Mayurbhanj, Odisha

Rasagobindapur LAMPCS is managed by an elected Board of Directors comprising 14 members. Among them, 11 are male directors and 3 are female directors. With a membership of 7824, this cooperative provides crop loans, fertilizers, seeds and engages in paddy procurement, significantly contributing to food security in 114 villages thereby achieving the Sustainable Development Goal 2 of Zero Hunger. The total storage capacity of the society is 100 metric tons.

Engaging in paddy procurement ensures that farmers have a reliable market for their produce, stabilizing their income and encouraging them to produce more. The society is well aware of the initiatives of the Ministry of Cooperation and has also applied for various initiatives like CSC services, Paani samiti and the world's largest grain storage scheme. Some of the societies have already taken or applied for membership of these societies.

Cooperative 6 – Chitrada LAMPCS, Mayurbhanj, Odisha

Chitrada LAMPCS is a Large-sized Adivasi Multipurpose Cooperative Society in the Mayurbhanj district of Odisha. It has 8156 members. The

society is governed by a 15-member Board of Directors. Out of 15 Directors, 9 are male and 6 are female, showcasing efforts towards gender equality in cooperative governance. Efforts to include women in the composition of the Board of Directors ensure that women's voices are heard in decision-making processes. The government can design and implement programs specifically aimed at supporting women farmers and entrepreneurs. The society's catchment area consists of 97 villages hence society ensures employability and food security for the larger number of farming families, contributing towards SDG 1 (No Poverty) and SDG 2 (Zero Hunger). Apart from seed and fertilizer supplies, the Society procures paddy at a minimum support price (MSP). The total storage capacity of the society is 450 metric tons.

Society's bye-laws are amended as per the model bye-laws provided by the Ministry of Cooperation. The society's savings and credit services help reduce poverty among its members (SDG 1). Chitrada LAMPCS infrastructure and innovative loan management system enhance local agricultural and economic activities.

Observation from the Study:

It is observed from the study that the business portfolio of almost all the societies can be diversified in Mayurbhanj district along with the continuation of existing businesses as many of the LAMPCS in the district has potentiality to undertake non-credit business. Many of the eligible societies have applied for business under the 54 initiatives announced by the government. Some of the societies are going to start some of the business also as viable to their area.

2. Field Input from Haryana:

Cooperative – The Sancholi PACS, Haryana

The Sancholi PACS is registered under the Haryana Cooperative Act. The society functions as the branch of the Gurgaon Central Cooperative Bank Limited, Sancholi. They are primarily in the business of selling fertilizers. As a PACS, they are primarily in credit-related services. The society purchased its first land (Panchayat land) in 1982 with the support of the State government. Society consists of 5436 members of which active members are 50% of which, 250 are women members and 1050 are male members. Women of age group less than 35 years are 20%. No service is provided to the non-members. The minimum age for becoming a member is 20 years. The board consists of 10 Directors, out of which 8 are male directors and 2 are female directors. The society consists of a storage facility since 1984. By supporting small farmers

and providing essential agricultural inputs, the Sancholi PACS helps reduce poverty. The society's activities ensure food security and promote sustainable agriculture (SDG 2 – Zero Hunger). The society conducts regular meetings and is thoroughly computerized.

3. Field Input from Uttar Pradesh

Cooperative – Pradeshik Cooperative Federation Limited (PCFL), Uttar Pradesh

Pradeshik Cooperative Federation Limited (PCFL) was established in 1943. PCFL networks with 7749 cooperatives in the state. It handles businesses including fertilizer handling and preposition, certified seed, paddy, wheat, sugar, and dalhan/tilhan procurement under price support and distribution. PCFL's work in fertilizer handling, seed distribution, and crop procurement can improve access to agricultural inputs for farmers, potentially increasing food production and reducing hunger (SDG 2). The society is already linked with the newly launched initiatives of the Ministry of Cooperation like Jan Aushadi Kendra's, petrol pumps and It has 18 regional offices, 249 Krishak Seva Kendra's (KSKs), 92 Jan Aushadi Kendra, 13 petrol pumps, and 1574 godowns.

By creating Krishak Seva Kendras (KSKs) and collaborating with Farmer Producer Organizations (FPOs), PCFL facilitates job creation and economic growth in rural areas (SDG 8). Under the direction of the PCFL, PACs are transformed into Common Service Centres (CSCs) using KSKs to sell medicines to local people with government approvals and ease out the citizen's access to several services thereby facilitating the Sustainable Development Goal of Good Health and Well-being. (SDG 3). Pradeshik Cooperative Federation Limited has created a network by setting up a network of Common Service Centres, tie-ups with FPOs, and also setting up petrol pumps. Thus, they have innovated in setting up larger networks to support the cooperative ecosystem.

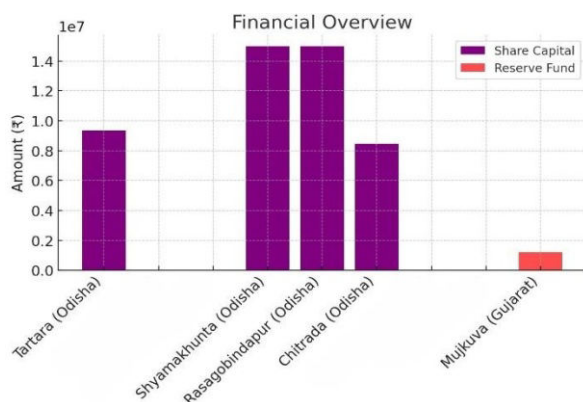
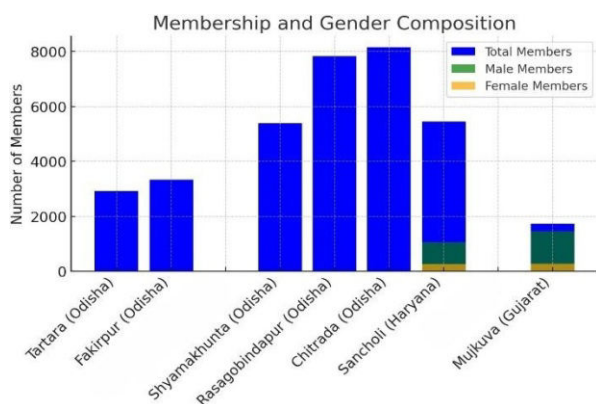
4. Field Input from Gujarat

Cooperative – Mujkuva Milk Producers Cooperative Society Ltd.

Mujkuva Milk Producers Cooperative Society Limited was established in 1956. The society was registered on 25th March 1957. It has 1727 members of which 1463 are men and 274 are women. Society procured around 95 % milk of the village during 2022-23. The society adheres to all the seven principles of the cooperatives. Adhering to the seventh principle of the cooperatives that is a

concern for the community, society has provided blankets to the members, contributed money for the construction of a bus stand and provided almirah to women's group, formed Health Center, provided school kit to school children thereby contributing to the development of the society concerned. Good quality feed and fodders are available for the cattle at the societal level. Medicines are also provided at society.

In Mujkuva, Biogas plants are installed by the dairy farmers in their backyard to produce gas for cooking fuel. The farmers primarily use the bio slurry produced from these biogas plants in their fields and surplus bio slurry gets sold to other farmers or converted into organic fertilisers.



State	District	Society Name	Major Activities	SDGs found to be Impacted in the study
Odisha	Keonjhar	Tartara Service Cooperative Society	Fertilizer, seeds, paddy procurement	SDG 2, SDG 8
Odisha	Keonjhar	Fakirpur Service Cooperative Society	Fertilizer, seeds, paddy procurement	SDG 1
Odisha	Keonjhar	Keshadurapal Service Cooperative Society	Fertilizer, seeds	SDG 12
Odisha	Mayurbhanj	Shyamakhunta LAMPCS	Fertilizer, seeds, paddy procurement	SDG 8
Odisha	Mayurbhanj	Rasagobindapur LAMPCS	Fertilizer, seeds, paddy procurement	SDG 2
Odisha	Mayurbhanj	Chitrada LAMPCS	Fertilizer, seeds, paddy procurement	SDG 1, SDG 2
Haryana	Gurgaon	The Sancholi PACS	Fertilizer, credit services	SDG 2
U.P.	Lucknow	Pradeshik Cooperative Federation Ltd.	Fertilizer, seed, paddy, wheat, sugar, dalhan/tilhan procurement	SDG 2, SDG 8, SDG 3
Gujarat	Anand	Mujkva Milk Producers Cooperative Society	Milk procurement	SDG 2, SDG 7

Limitation of the Study:

In research study where the involvement of primary and secondary data is there normally certain constraints arise. This study is also not an exception to certain minor limitations. This study aims to understand the role of cooperatives in their contribution to achieving the SDGs. There may be certain omission and commission errors during the process of the study.

Findings:

1. Cooperative societies in India have been instrumental in poverty alleviation, employment generation, and enhancing socio-economic welfare, particularly in rural areas.
2. Cooperative initiatives align with multiple Sustainable Development Goals (SDGs), including SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 8 (Decent Work and Economic Growth), and SDG 12 (Responsible Consumption and Production).
3. Efforts like digitalization of cooperative governance and PACS integration with Common Service Centres (CSC) enhance rural access to technology and government services.
4. Programs like the world's largest grain storage scheme and multi-state

cooperative societies support food security and sustainable agricultural practices.

5. Policies mandating women's representation in cooperative boards contribute to gender equality (SDG 5).
6. Cooperatives in dairy, fisheries and agriculture contribute significantly to rural livelihoods, food security and financial inclusion.
7. Innovative cooperative like solar irrigation societies (e.g., Dhundi Saur Urja) promote sustainable energy use (SDG 7) and climate action (SDG 13).
8. Many cooperatives operate with low to moderate growth and face infrastructure and resource constraints.

Concluding Points:

1. Cooperative societies are pivotal in achieving SDGs through support, policy alignment and awareness campaigns to ensure cooperatives effectively implement government initiatives and expand their business portfolios.
2. By fostering collaboration and pooling resources, cooperatives overcome individual limitations, ensuring broader economic and social impacts.
3. There is a need for increased infrastructural support, policy alignment and awareness campaigns to ensure cooperatives effectively implement government initiatives and expand their business portfolios.
4. Enhance digital infrastructure and training for cooperative members.
5. Encourage diversification of services and partnership with governmental schemes to strengthen cooperatives roles in achieving SDGs.
6. Focus on sustainability and resilience in cooperative operations, particularly in agriculture and energy sectors.
7. Continuous evaluation and modification of policies are crucial to address regional disparities in cooperative performance.
8. Institutional support and partnerships are necessary to overcome operational challenges and optimize cooperatives contribution to development.

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The Role of Co-operatives in Sustainable Farming

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Abstract:

Co-operatives are present in all countries and work in many sectors like agriculture, food, finance, health care, marketing, insurance, and credit, and they play an important role in promoting sustainability. A cooperative is an autonomous organization of individuals who voluntarily come together to meet their common economic, social, and cultural needs. These societies operate on democratic principles and are based on values of self-help, mutual responsibility.

Cooperatives organize training sessions and workshops to educate farmers about organic farming, crop rotation, and pest management, storing and wear housing thus promoting sustainable farming.

Through cooperatives, farmers can take low-interest loans, reducing their depend on private money-lenders and avoiding debt cycles. In co-operative farming, farmers keep their own land but work together to farm it. The profits are shared based on how much land each member owns, and wages are given based on their work. This research looks at what sustainable farming means and how co-operatives help farmers practice it. Information will be collected from farmers, members, Directors of Prabhu Vikas Cooperative Society Wadegavan, through structure and unstructured questionnaire which were analysed through various statistical tools. To arrive at the conclusion this research paper will be useful for policy makers and other too organisation/selected beneficiaries or sustainable farming.

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Key Words:

Co-operatives, Sustainable Farming, Agriculture.

Introduction:

Agriculture is the backbone of India's economy, contributing significantly to GDP and providing employment to a large section of the population. However, modern agriculture faces different challenges, including environmental changes, and market changes. Co-operatives play a pivotal role in advancing sustainable farming by resources, sharing knowledge, and providing financial and technical knowledge to their members. This research focuses on understanding the contributions of co-operatives to sustainable farming, identifying the challenges faced by co-operatives, and proposing strategies for enhancing their effectiveness sustainable agricultural.

Sustainable farming ensures food security and protects the environment. It involves farming methods that maintain productivity, protect nature, and support farmers financially. Co-operatives have become an important way to solve problems in farming by helping farmers share resources, knowledge, and opportunities. This research focuses on how co-operatives improve agricultural production, conserve the environment, and make farmers life better.

Sustainable farming is difficult for ensuring food security, preserving natural resources, and combating the adverse effects of climate change. However, individual farmers often lack the resources and knowledge required to transition to sustainable practices. Cooperative societies, as a collective model, have the potential to bridge these gaps. By bringing farmers together, cooperatives enable shared access to resources, information, and markets. They also provide a platform for collective decision-making and community engagement, which are essential for addressing complex agricultural challenges.

The role of cooperative societies in agriculture is not new. Historically, they have been instrumental in enhancing farmers' bargaining power and ensuring fair prices for produce. In the context of sustainable farming, cooperatives can promote practices that reduce environmental harm while ensuring economic viability for farmers. However, the extent to which cooperatives achieve these goals varies widely. This study aims to investigate the specific ways in which cooperative societies contribute to sustainable farming and identify factors that enhance or impede their effectiveness.

Review of literature:

1. Role of Agricultural Cooperatives in Enhancing Farmer Income:

Researchers such as Birchall and Simmons (2010) have highlighted the critical role agricultural cooperatives play in improving farmers' income by providing collective access to markets, resources, and technical know-how. These cooperatives empower farmers to negotiate better prices for their produce and reduce dependence on intermediaries. The study also emphasizes the importance of cooperatives in promoting sustainable agricultural practices, such as crop diversification and organic farming, which benefit both the environment and the economy.

2. Cooperatives and Knowledge Sharing for Sustainable Practices:

According to Rivera et al. (2006), cooperatives are pivotal in disseminating knowledge about sustainable agricultural methods. They organize training programs and workshops to educate farmers on techniques like organic farming, soil conservation, and integrated pest management. The study underlines that farmers who are part of cooperatives are more likely to adopt sustainable farming practices due to the availability of resources and shared learning opportunities.

3. Economic and Environmental Benefits of Cooperative Farming:

A study by Poteete and Ostrom (2004) explored the dual benefits of cooperative farming—economic resilience and environmental conservation. It found that cooperatives enable farmers to pool resources for shared farming equipment and infrastructure, reducing costs and environmental impact. The study also highlighted the potential of cooperatives in promoting climate-resilient farming techniques, thus safeguarding livelihoods against climate change.

4. Challenges in Cooperative Farming for Sustainability:

Sharma and Singh (2015) identified challenges faced by agricultural cooperatives, including inadequate funding, lack of technical expertise, and poor governance. These barriers often hinder the ability of cooperatives to fully implement sustainable farming practices. However, the study also suggested that with proper policy interventions and capacity-building initiatives, these challenges can be mitigated, enhancing the effectiveness of cooperatives.

5. Impact of Financial Support Through Cooperatives:

Karanja et al. (2013) studied the role of cooperatives in providing low-interest loans and financial support to farmers, reducing their reliance on private moneylenders. The research indicated that this financial support helps farmers invest in sustainable agricultural practices, such as renewable energy for irrigation and organic fertilizers, leading to improved productivity and environmental conservation.

6. Social Capital and Community Building in Cooperative Farming:

Studies by Pretty and Smith (2004) emphasized the role of cooperatives in fostering social capital and strengthening community ties among farmers. This collective approach not only enhances trust and collaboration but also creates a robust framework for addressing agricultural challenges. The study found that cooperatives significantly contribute to the socio-economic well-being of farmers by enabling shared access to markets, resources, and opportunities.

Problem Statements: Sustainability is a very important factor in farming. Due to lack of sustainability, farmers face a lot of problem. There are many reasons for lack of sustainability it would be lack of understanding of climatic changes, lack of farming education, lack of proper seeds, lack of transportation facilities to reach the markets, lack of electricity, lack of water efficiency and many more.

But farming is the only occupation which involves in growing grains, pulses, vegetables, fruits and other produce which are consumed by people and essential for their living. Co-operative play a very important role in maintaining sustainability into growing crops and other produce hence the researchers want to understand the role of co-operative farming.

Research Questions:

Based on the observed problem statement, the following research questions will guide the study:

1. What is the role of co-operatives in bringing sustainability to farming?
2. How do co-operatives contribute to the adoption of sustainable farming practices?
3. How can co-operatives support farmers in achieving sustainability?
4. Whether co-operatives are useful for sustainable farming?

Objective: To Study the role of co-operative in sustainable farming.

Research Methodology:

This study uses an exploratory research design. Primary data will be collected through structure and unstructured questionnaire with farmers and co-operative members and directors of co-operative society. Secondary data will be referred from articles, government reports, and other studies about sustainable farming and co-operatives.

Sample frame: sampling details are registered Members of Prabhu Vikas Cooperative Society Wadegavan, Tal-Parner. District-Ahmednagar.

Sample Size: 56 member of Prabhu Vikas Cooperative Society.(Universe)

Sampling Technique: This sampling technique are Random Sampling.

Data Analysis and Interpretation:

The analysis focuses on the role of cooperatives in promoting sustainable farming practices, as outlined in the research paper. The data collected from members of the Prabhu Vikas Cooperative Society in Wadegavan will be interpreted to assess how cooperatives contribute to sustainability in agriculture.

Demographic Profile of respondents (n=56)

Table no.1 from below data, researchers can clearly interpret that 78.6% of the member were male and 21.4% of the member were female.

The data reveals a significant gender gap, with males dominating cooperative membership. This suggests that cooperative participation may be less accessible or appealing to women. Encouraging female participation can enhance inclusivity and bring diverse perspectives to cooperative activities.

The majority of cooperative members (75%) are middle-aged or older (36 years and above), indicating that experienced farmers are the primary participants. Younger farmers (18-25 years) are minimally represented, which might limit innovation and the adoption of modern farming techniques.

Most members have low to moderate educational qualifications, with only 5.4% being graduates or above. This highlights the need for structured training programs to equip farmers with the knowledge and skills required for sustainable farming practices.

Nearly half (48.2%) of the respondents own medium-sized landholdings (4-7 acres), followed by 35.7% owning 1-3 acres. Farmers with smaller landholdings (<1 acre) are underrepresented, suggesting the need for targeted interventions to support small-scale farmers.

Table No.1

Variables	Numbers of Members	Percentage
Gender		
Male	44	78.6%
Female	12	21.4%
Age		
18-25	1	1.8%
26-35	11	19.6%
36-50	23	41.1%
51 and above	19	33.9%
Educational Qualification		
Illiterate	5	8.9%
Primary Education	19	33.9%
Secondary Education	16	28.6%
Higher Secondary Education	12	21.4%
Graduate and above	3	5.4%
Other	1	1.8%
How much land do you own		
Less than 1 acre	2	3.6%
1–3 acres	20	35.7%
4–7 acres	27	48.2%
More than 7 acres	7	12.5%

Source Primary Data

Table no 2. A substantial majority (85.7%) report improvements in income and productivity due to cooperative involvement.

The majority (83.9%) of respondents do not benefit from APMC, highlighting a disconnect between cooperatives and market access. Strengthening cooperative links with APMC could improve profitability and market opportunities for farmers. Majority of members nondependent on private

money lenders. Members joining improving the 80.4% profitability and 19.6% says don't improve profitability.

Table No.2

Variable's	Numbers of Members	Percentage
Has your co-operative helped improve your overall income and productivity?		
Yes	8	14.3%
No	48	85.7%
Do you benefit from Agricultural Produce Market Committee?		
Yes	9	16.1%
No	47	83.9%
Has joining a co-operative reduced your dependency on private money-lenders?		
Yes	55	98.2%
No	1	1.8%
Have you seen any improvements in your farm's productivity and profitability since joining the cooperative?		
Yes	45	80.4%
No	11	19.6%

Source of Primary Data

Table No. 3

What farming methods do you currently use?	Numbers of Members	Percentage
1. Traditional farming	51	91.1%
2. Organic farming	3	5.4%
3. Chemical-based farming	49	87.5%

Source of Primary Data

Above table no. 3 shows Out of the 56 members surveyed 49 members (87.5%) use chemical farming methods. 51 members (91.1%) practice traditional farming methods, often alongside chemical methods. 3 members (5.4%) use organic farming methods, making it the least practiced farming technique.

Table No.4

How often do you face crop failures or low yields due to environmental factors?	Numbers of Members	Percentage
1. Rarely	51	91.1%
2. Occasionally	4	7.1%
3. Frequently	1	1.8%

Source of Primary Data

Table no.4 Indicates 91.1% of members reported that they occasionally face crop failures or reduced yields due to climate-related issues. 7.1% of members reported frequent crop failures due to climate change. 1.8% of members stated that they rarely face this issue.

Table No.5

Which of the following does a cooperative help you if the crop fails or is damaged due to climate change?	Numbers of Members	Percentage
1. Pays compensation	1	1.8%
2. Panchnama does	1	1.8%
3. Promises to help	30	53.6%
4. Does none of the above	24	42.9%

Source of Primary Data

Table no. 5 Indicates 53.6% of members indicated that cooperatives provide partial compensation but not full assistance. 42.9% of members felt that cooperatives assist with both compensation and damage assessment (Panchanama) to ensure fair evaluation of losses. 1.75% of members believe the compensation provided is inadequate or less than the meeting fees required for evaluation.

Table No. 6

How satisfied are you with the support provided by your co-operative?	Numbers of Members	Percentage
1. Very satisfied	0	0
2. Satisfied	9	16.1%
3. Neutral	35	62.5%
4. Dissatisfied	12	21.4%
5. Very dissatisfied	0	0

Source of Primary Data

Table no.6 Shows, A majority 62.5% of members hold neutral views, suggesting that cooperatives meet basic expectations but fail to exceed them. 16.1% of members reported satisfaction. The dissatisfaction of 21.4% indicates areas where cooperative services need improvement.

Table No. 7

What additional support do you expect from your co-operative for sustainable farming?	Numbers of Members	Percentage
1. Financial aid or subsidies	21	37.5%
2. Training programs on sustainable practices	49	87.5%
3. Improved access to markets	51	91.1%
4. Storage and warehousing facilities	51	91.1%
5. Technical support for climate-resilient farming	55	98.2%

Source of Primary Data

Table no.7 shows 21 out of 56 members (37.5%) stated that apart from financial assistance or grants, training programs on sustainable farming methods should be implemented. 51 out of 56 members (87.5%) emphasized the need for access to high-quality seeds, pesticides, transport services, and knowledge-sharing initiatives. 51 out of 56 members (91.1%) highlighted the importance of improving market access and creating better market linkages. 55 out of 56 members (98.2%) expressed the need for technical assistance to adopt climate-resilient agriculture practices.

Table No. 8

What are the benefits of cooperatives promoting sustainable farming practices?	Numbers of Members	Percentage
1. Economic	13	23.2%
2. Social	6	10.7%
3. Environmental	1	1.8%
4. All of the above	36	64.3%
	0	0

Source of Primary Data

Table No. 8 23.2% of members stated that cooperatives help in terms of economic development only. 10.7% of members said cooperatives assist in social development. 1.8% of members believed cooperatives support environmental change exclusively. 64.3% of members highlighted that cooperatives contribute to economic development, social development, and environmental change

Findings:

The Role of Cooperative in sustainable Farming research shows following key findings, cooperatives have improved income and reduced debt for farmers but fall short in promoting sustainable farming practices, market access, and technical support. There is a need for better training, infrastructure, and gender-inclusive policies to enhance their effectiveness.

78.6% of cooperative members are male and member are female 21.4%, highlighting a gender disparity in participation. Most members (75%) are aged 36 years or above, indicating limited involvement of younger farmers. Only 5.4% of members have graduate-level education or higher, suggesting a need for improved educational support.

85.7% of respondents noted an improvement in income and productivity after joining cooperatives. Cooperatives have significantly reduced dependency on private moneylenders (98.2% of respondents). Despite benefits, only 16.1% of members are satisfied with cooperative services, with many holding neutral views (62.5%).

Traditional and chemical farming methods dominate, with only 5.4% practicing organic farming. Climate-related issues occasionally lead to crop failures for 91.1% of members. While cooperatives provide partial compensation for losses, full assistance is rare.

However, many members noted that in practice, cooperatives primarily function as loan providers of 100%, rather than only offering comprehensive support across all promised areas like market access, technical knowledge, and other farming resources but they do not work above areas.

Limited access to Agricultural Produce Market Committees (APMCs), with 83.9% reporting no benefit from these institutions. Inadequate support in market access, technical knowledge, and comprehensive resources. Overemphasis on loan provisions, neglecting other critical areas like training and resource-sharing.

High demand for technical assistance to adopt climate-resilient practices (98.2%). Need for better market access and high-quality farming inputs (91.1%). Importance of training programs on sustainable farming methods (37.5%).

Conclusion:

The study shows the Most farmers are neutral about the assistance provided by the cooperative society. Most of farmers have 1 to 7 acres farm and they have education is primary level. This research is help to farmer and cooperative operation. Farmers face losses due to climate changes. Cooperatives primarily function as loan providers and fail to comprehensively address farmers' needs in terms of training, resource-sharing, and infrastructure support.

Women have low participation in cooperative societies. A lack of focus on market access and technical knowledge-sharing interferes broader sustainability goals. Cooperatives do not work properly but they show on paper the work very well by cooperative, but they have while cooperatives hold potential for driving sustainable farming practices, their contribution is limited by the dominance of chemical and traditional farming methods.

To arrive at the conclusion this research paper will be useful for policy makers and other too organisation/selected beneficiaries or sustainable farming.

Suggestions:

Promote gender equality by creating targeted programs to encourage female participation. Engage younger farmers through modern farming innovations and technology-based initiatives. Develop structured training programs focused on sustainable farming practices, organic farming, and climate-resilient techniques. Enhance educational opportunities for cooperative members to facilitate better decision-making and resource utilization.

Strengthen cooperative linkages with APMCs (Agriculture Produce Market Committee) to improve market opportunities for farmers. Invest in transportation and storage infrastructure to ensure timely and efficient market access.

Provide high-quality seeds, organic fertilizers, and pesticides at subsidized rates. Focus on comprehensive compensation mechanisms for climate-related losses.

The special cult community people schedule cast and schedule tribes who could not avail membership due to no farm Owings be benefited like providing land for cultivation, cattle feeding at riverside or state-owned premise or cooperative society owned land as per leasing.

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URL:

<https://docs.google.com>

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Improving Customer Satisfaction through Enhanced Service Quality in Cooperative Medical Shops: A Sustainable Approach to Healthcare in Dindigul

B. Krupa Shree*, Dr. S. Manivel**

Abstract:

Cooperative medical shops are vital in providing affordable healthcare to the community. Tamil Nadu has 380 such shops, which recorded medicine sales of Rs. 156.61 crore from April 2022 to February 2023, with discounts of up to 20%. Additionally, 70 new shops opened during the fiscal year 2022-23, contributing Rs. 13.64 crore in sales. This highlights their significant impact on local healthcare. This study focuses on the link between service quality and customer satisfaction in cooperative medical shops in Dindigul, India, aligning with SDG 3, which aims to promote health and well-being. The research will examine service quality factors like reliability, responsiveness, and empathy to understand their effect on customer satisfaction. A combination of surveys and interviews will be used to gather data, offer suggestions for improving service quality, and support sustainable healthcare in Dindigul.

Keywords:

Sustainable Health Care, Customer Satisfaction, Service Quality

Introduction:

Cooperative medical shops are local stores that provide affordable medicines and healthcare products. Run by healthcare workers or community members, their goal is to make essential medicines readily available, especially in rural areas. By cutting out middlemen and using their profits to support community health, these shops help keep prices low, ensure transparency, and boost the local economy. Access to affordable and good-quality healthcare is crucial for community well-being, and these shops play a key role in making medicines more accessible. India's pharmaceutical industry is a global leader, ranking

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third in production volume. It is known for high-quality generic medicines and affordable vaccines, contributing significantly to the economy. In 2021-22, it had a turnover of ₹3.44 lakh crore (USD 42.34 billion) and included various segments like drugs, vaccines, and biologics (K. Padhmanaban, Journal of Computational Analysis and Applications, 2024)

In Tamil Nadu, cooperative medical shops have expanded, with 380 shops operating and selling medicines worth Rs. 156.61 crore from April 2022 to February 2023. They offer discounts of up to 20%, making medicines more affordable. During this period, 70 new shops opened, selling medicines worth Rs. 13.64 crore, highlighting their growing role in the healthcare sector.

This study focuses on the service quality of cooperative medical shops in Dindigul, Tamil Nadu, and its impact on customer satisfaction. It aligns with Sustainable Development Goal (SDG) 3, which promotes good health and well-being. The study examines different aspects of service quality, including reliability, responsiveness, assurance, empathy, and physical facilities. Using surveys and interviews, it aims to understand customer experiences and expectations. The SERVQUAL model will help measure service quality and identify the key factors influencing customer satisfaction and loyalty.

The study's findings will offer valuable recommendations to improve service quality in cooperative medical shops, ensuring they continue to provide reliable and sustainable healthcare. These shops can build customer trust and improve their services by identifying and addressing service gaps. Ultimately, this research aims to link service quality with customer satisfaction, helping create a more potent and more effective healthcare system in Dindigul.

Review of literature:

Kumari & Kumar (2023) reviewed customer satisfaction in tertiary hospital pharmacy services, highlighting key aspects like dispensing, medication counseling, and pharmacist-patient interaction. Their study found gaps in the literature on satisfaction factors, especially for elderly patients and first-time visitors, emphasizing the need for improved pharmacy service quality (kumari, 2023)

Alanazi et al. (2023) studied patient satisfaction with community pharmacy services in Punjab, Pakistan. They found that only 30% of patients received pharmacist counseling, while 52% felt the counseling time was sufficient. Overall, satisfaction was low due to concerns about pharmacist availability and service quality (Authors Alanazi AS, 2023)

Gul et al. (2023) studied service quality, satisfaction, and loyalty in Turkish community pharmacies. They found that good communication, medicine availability, and a pleasant pharmacy environment improved patient satisfaction, with medicine supply having the most significant impact. Satisfied patients were more loyal, showing the importance of meeting both medical and social needs (Elsevier, 2023)

Padhmanaban & Kavitha (2024) examined how consumers view co-operative pharmacies in Cuddalore, Tamil Nadu. They assessed service quality, patient satisfaction, and customer preferences. The study identified both strengths and areas needing improvement. It highlighted the importance of co-operative pharmacies in providing affordable healthcare, supported by government programs like Amma Pharmacy (K. Padhmanaban, 2024)

Statement of the problem:

This study focuses on the issues with service quality at cooperative medical shops in Dindigul, Tamil Nadu, which affect customer satisfaction and loyalty. Despite offering affordable healthcare, concerns include poor service quality, unprofessional staff, disorganized layouts, and weak customer interaction. These issues lead to dissatisfaction among some customers, limiting the effectiveness and growth of these shops. The study aims to identify these problems and suggest improvements to enhance customer satisfaction, ensuring the shops continue to support community health and align with Sustainable Development Goal 3.

Objectives:

- To evaluate the dimensions of service quality that significantly influence customer satisfaction in cooperative medical shops in Dindigul.
- To identify gaps in current service delivery that may hinder customer satisfaction and adherence to sustainable healthcare practices.
- To propose recommendations for improving service quality in cooperative medical shops to align with SDG 3 and enhance community health outcomes.

Research Methodology:

The study used qualitative approaches to thoroughly explore customer satisfaction and service quality in the Abirami wholesale consumer cooperative society shop from Dindigul. For data collection, survey methods were conducted using a structured questionnaire informed by the SERVQUAL model to assess the dimensions of service quality and levels of customer satisfaction.

In addition, structured questionnaires were conducted with a chosen group of customers to gain deeper insights into their experiences and viewpoints regarding the service quality offered by cooperative medical shops. A random sampling technique was used to select a representative sample of customers who visited cooperative medical shops in Dindigul.

Analysis and Interpretation:

Table1 : Demographic Profile

	variable	Frequency	Percent (%)
SNO	Age		
1	0-20	1	5.0
2	21-40	3	15.0
3	41-60	9	45.0
4	Above 60	7	35.0
	Total	20	100.0
	Gender		
1	Male	13	65.0
2	Female	7	35.0
	Total	20	100.0
	Family Type		
1	nuclear	12	60.0
2	joint	8	40.0
	Total	20	100.0
	Family Size		
1	1-2 members	8	40.0
2	3-4 members	8	40.0
3	5-6 members	4	20.0
	Total	20	100.0
	Annual income		
1	<200000	4	20.0
2	200000-500000	11	55.0
3	500000-1000000	5	25.0
	Total	20	100.0

	Occupation		
1	employed	10	50.0
2	unemployed	10	50.0
	Total	20	100.0
	Frequency of Visits		
1	first time	3	15.0
2	ocassionaly	5	25.0
3	often	12	60.0
	Total	20	100.0
	Reason for Visit		
1	prescription medicine	12	60.0
2	Over-the-counter medicine	8	40.0
	Total	20	100.0
	Education		
1	educated	10	50.0
2	uneducated	10	50.0
	Total	20	100.0
	Residence		
		frequency	Percent
1	urban	7	35.0
2	semi-urban	3	15.0
3	rural	10	50.0
	Total	20	100.0
	Decision to Visit		
1	low price	8	40.0
2	availability	2	10.0
3	good service quality	6	30.0
4	others	4	20.0
	Total	20	100.0

Source: Primary Data

The data shows the characteristics of 20 people based on their demographics and behaviors. Most respondents (45%) are aged 41-60, with 35% being over 60, 15% between 21-40, and 5% under 20. Regarding gender, 65% are male and 35% are female. About 60% live in nuclear families, while 40% live in joint families. Family sizes are mostly balanced, with 40% having

1-2 members, 40% having 3-4 members, and 20% having 5-6 members. In terms of income, 55% earn ₹200,000-₹500,000, 25% earn ₹500,000-₹1,000,000, and 20% earn less than ₹200,000. Half of the respondents are employed, while the other half are unemployed. Regarding visit frequency, 60% visit frequently, 25% occasionally, and 15% for the first time. Most people visit for prescription medicine (60%), while 40% visit for over-the-counter medication. Half of the respondents are educated, and half are uneducated. Regarding where they live, 50% are in rural areas, 35% in urban areas, and 15% in semi-urban areas. The main reasons for visiting are low price (40%), good service quality (30%), availability (10%), and others (20%).

Table 2: The medical shop is clean, well-organized, and Visually appealing

Scale	Frequency	Percent
Satisfied	7	35.0
Neutral	10	50.0
Dissatisfied	3	15.0
Total	20	100.0

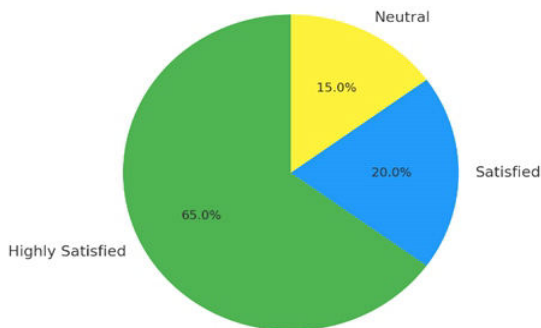
The data shows customer opinions about the medical shop's cleanliness, organization, and visual appeal. Of 20 respondents, 35% are satisfied, 50% feel neutral, and 15% are dissatisfied. While most customers do not express intense satisfaction, the neutral responses suggest there is room for improvement in making the shop more visually appealing and organized to meet customer expectations better.

Table 3 : Overall satisfaction with the medical shop

	Frequency	Perception
highly satisfied	6	30.0
satisfied	6	30.0
neutral	8	40.0
Total	20	100.0

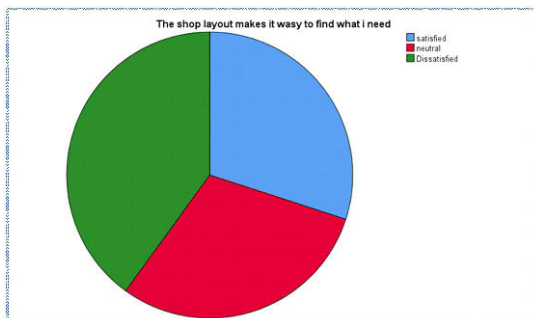
The overall satisfaction with the medical shop shows that 30% (6 individuals) are delighted, while another 30% (6 individuals) are satisfied. However, 40% (8 individuals) felt neutral about their experience. This indicates that while many customers are satisfied, many are indifferent or have no strong opinion

pie chart: 1 : Survey Results On Medicine Availability



Most respondents are satisfied with medicine availability, 65% highly satisfied, 20% satisfied, and 15% neutral.

Pie chart 2 : The Layout of the medical shop makes it easy to identify the medicines

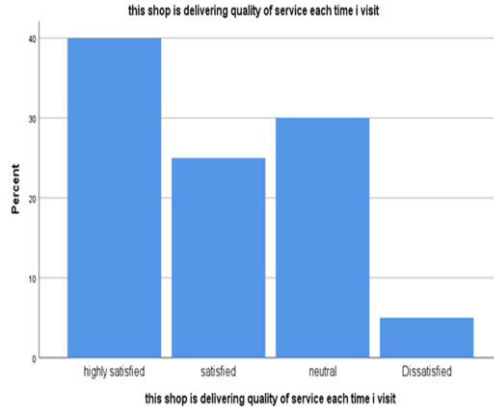


The survey results show that 30% (6 individuals) are satisfied with the shop layout, while another 30% (6 individuals) feel neutral about it. However, 40% (8 individuals) are dissatisfied, indicating that many customers find locating what they need in the shop challenging.

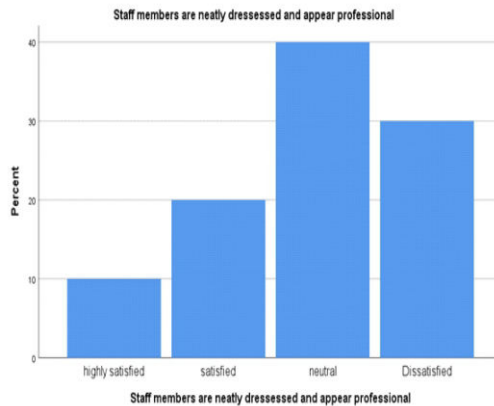
Delivering quality of Service:

The survey results indicate that most customers are satisfied with the service at the shop. Forty percent (8 individuals) reported being highly satisfied, while 25% (5) expressed satisfaction. A smaller portion, 30% (6 individuals), felt neutral about the service, and only 5% (1 individual) were dissatisfied. The shop provides quality service, as most customers have positive feedback.

Bar Chart1 : Delivering quality of Service

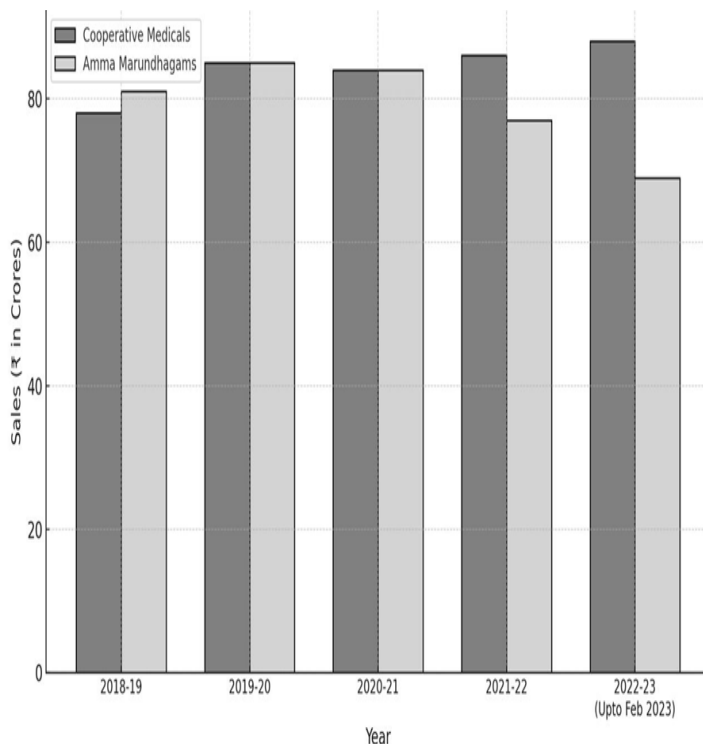


Bar Chart 2 : Staff members and their Professionalism



The survey results show that 10% (2 individuals) are highly satisfied with the staff's appearance, while 20% (4 individuals) are satisfied. A larger group, 40% (8 individuals), felt neutral about the staff's dress and professionalism. However, 30% (6 individuals) were dissatisfied. This indicates that while some customers appreciate the staff's appearance, a significant portion are indifferent or not pleased.

Bar chart: 3, Sales of medicine in cooperative medicals and Amma Marundhagam



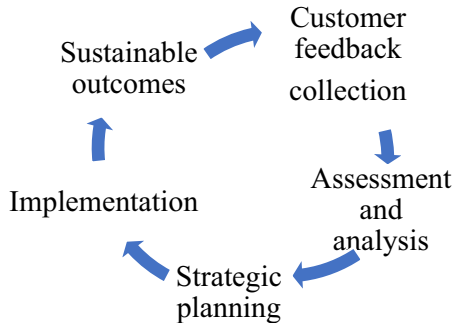
The bar chart illustrates the sales of medicines in Cooperative Medical Shops and Amma Marundhagams (affordable medicine outlets) over five years, from 2018-19 to 2022-23. Consistent Sales Performance: Cooperative Medical Shops and Amma Marundhagams have maintained steady sales. Cooperative Medical Shops Lead: Sales in Cooperative Medical Shops have generally been higher than those in Amma Marundhagam in most years. 2022-23 Trends (up to February): Cooperative Medical Shops showed a notable increase in sales, while Amma Marundhagam experienced a slight decline compared to previous years (POLICYNOTE.CO-OPERATION, 2023-2024)

Key Findings:

The study identifies key areas for improvement, such as offering more personalized services and better customer interactions to meet customer expectations. While many customers are satisfied overall, some remain neutral or have no strong opinion. Some customers struggle to find the

products they need, and while some appreciate the staff's appearance, others are indifferent or dissatisfied. Cooperative medical shops in Dindigul play a crucial role in providing affordable and accessible healthcare, especially for underserved communities. These shops contribute significantly to Sustainable Development Goal 3 by supporting good health and overall well-being.

Model for Service Quality Improvement



Implications:

- ☞ **Better Access to Healthcare:** Improving service quality in cooperative medical shops can make affordable medicines available, helping disadvantaged communities in Dindigul District.
- ☞ **Happy and Loyal Customers:** Focusing on key service factors like quick response and care can increase customer satisfaction, leading to repeat visits and long-term trust.
- ☞ **Sustainable Health Services:** Running cooperative medical shops aligned with SDG 3 can support long-lasting, healthy healthcare practices.
- ☞ **Improving Policies:** The study's findings can help shape better policies for improved services and customer care in cooperative medical shops.
- ☞ **Healthier Communities:** Better service quality can lead to improved health, ensuring long-term well-being for the local population.

Suggestions:

The main reasons customers are drawn to cooperative pharmacies are the availability of products, knowledgeable and experienced staff, helpful product information, free home delivery, and extra services like regular reminders. Therefore, cooperative pharmacies should focus on these areas. Customers care about product discounts, special offers, and a wide selection, so pharmacies should pay attention to these factors to attract more customers. Offering membership cards with benefits, like those provided by Apollo or

Med-Plus pharmacies, can also help. Members can enjoy discounts on medicines, free health check-ups, free door delivery, counseling sessions, special offers, and other perks. These activities can help attract more customers.

Conclusion:

In conclusion, Dindigul's cooperative medical shops are essential for better healthcare, especially in underserved areas. Improving service quality—focusing on reliability, quick response, and care—can boost customer satisfaction, trust, and overall community health. Aligning their work with Sustainable Development Goal 3 will help create fair and lasting healthcare services. This study's findings can help improve service delivery and support better long-term health for the community, ensuring these shops remain a valuable healthcare resource for everyone.

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Financial Sustainability in cooperatives: A case of Success story with reference to Strategies and Practices

Mrs. A. Maheswari*, Dr. B. Tamilmani**

Abstract:

In India, the cooperatives were created mainly to protect farmers from the exploitation by moneylenders, then different forms of cooperatives got flourished. Despite being around for centuries, cooperatives in India haven't grown as rapidly as other business models. Yet, they remain crucial to the rural economy, offering livelihoods, financial security, and social safety nets. As of December 2024, there are over 6.2 lakh functioning cooperative societies in India, involving nearly 8.7 crore members (Press Information Bureau). However, the number of truly successful cooperatives remains small, often because financial stability is a persistent challenge.

This paper aims:

- *To identify strategies and practices adopted by cooperatives for financial sustainability of India that can serve as benchmark for others.*
- *To Investigate innovative financial models and revenue-generating mechanisms that cooperatives in India can adopt to achieve long-term sustainability.*
- *To Present case of successful Indian cooperatives to understand the factors contributing to their financial stability and resilience.*
- *To Provide Recommendations for cooperatives to improve financial management practices and enhance sustainability in the Indian socio-economic context.*

The research is a case study describing the financial Sustainability by using the secondary data published in the e-source. Secondary Data will be collected from the government reports, cooperative societies' financial

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statements, and reports from financial institutions will be analysed to identify trends in financial performance and sustainability. This includes analysing working capital, profitability, and growth patterns over recent years.

Key Words: *recent years*

Introduction:

In India, the Cooperatives were created mainly to protect farmers from the exploitation of the moneylenders, thereafter different forms of cooperatives got flourished to serve the needs of the people of different walks of life. Despite being existence for centuries, Cooperatives in India haven't grown as rapidly as other business models. Yet, they remain crucial for the rural economy, offering livelihoods, financial security, and social safety nets. As of December 2024, there are over 6.2 lakh functioning cooperative societies in India, involving nearly 8.7 crore members (Press Information Bureau) 1. However, the number of truly successful cooperatives remains small, often because financial sustainability is a persistent challenge. Financial sustainability refers to the condition in which the financial system, including financial institutions (such as banks), markets, and infrastructure, operates efficiently and is resilient to economic shocks. It ensures that the system can support sustainable economic growth, even during periods of stress or uncertainty. It helps withstand economic downturns, market volatility, or industry-specific challenges. It Provides the confidence to invest in new projects, expand operations, or innovate and builds trust among shareholders, employees, and customers, ensuring continued support and loyalty. Measuring a firm's financial sustainability in terms of four conditions: (1) Firm's growth (2) The Business Enterprise's ability to survive (3) An acceptable overall level of earnings risk exposure (potential loss of the total amount) an attractive earnings risk profile (conservative, Moderate and Aggressive- returns from investments)

Review of literature:

The review of related studies is presented for better understanding as well as it helps us the major findings and results.

Priyajoy kar (2021) conducted a study on An Appraisal of Financial Sustainability of Dairy-Based Farmer producer companies in India. The findings revealed that all four FPCs were in the 'red zone,' indicating poor performance in solvency, efficiency, and profitability over the three-year period studied. However, the overall Combined Performance Score of these

FPCs was in the 'yellow' or average zone. To enhance financial performance and ensure sustainability, the study recommended several measures.

Gupta, P., and Verma, A (2021) studied the Key financial performance metrics in Co- operative Dairies of Uttar Pradesh. The study identified several challenges impacting the financial performance of these dairies, including: High operational costs, In efficient supply chain management, Limited access to advanced technology, Fluctuating market prices for dairy products. To enhance financial sustainability, the authors recommended: Implementing cost-control measures, Optimizing supply chain operations, investing in modern technology, developing strategies to mitigate market volatility.

N Sachin, and R Rajesh (2021) made an empirical study of supply chain sustainability with financial performances of Indian firms. The analysis revealed that these sustainable practices did not have a significant positive effect on the financial performance of the firms during the period under review. These findings suggest that, within the context of the sample and period analysed, implementing sustainable supply chain practices may not immediately enhance financial performance for Indian firms.

Sanchayan Nath and Rakesh Arrawatia (2022) studied the Trade-offs or Synergies? Hybridity and sustainable performance of Dairy cooperatives in India and study found that Indian DCs exhibit synergetic outcomes, effectively balancing and achieving multiple goals simultaneously. The authors suggest that the hybrid nature of these cooperatives enables them to pursue market-based, community-oriented, and public benefit objectives concurrently, leading to sustainable performance.

Nair R. and Menon, S. (2023) examined the Impact of Digital Financial Management Tools on co-operative dairies in Kerala. Their research revealed that implementing these digital tools led to significant improvements in financial reporting accuracy, cost reduction, and enhanced decision-making processes. The authors recommended that co-operative dairies invest in digital financial management systems to further optimize their financial operations and overall performance.

Vipul Gupta and Praveen Kumar Sharma (2024) Studied the Financial Inclusion Initiatives by Cooperative Societies in Select Regions of North India. The study emphasized the need for strengthening these cooperatives through capacity building, technological integration, and supportive policies to enhance their effectiveness in promoting financial inclusion.

Chauhan Bhaviniben Manojbhai and H. M. Korant (2024) conducted a

Study on Financial Performance Metrics of selected Cooperative Dairies in Gujarat. The study concluded that each dairy exhibits distinct financial performance profiles, with varying strengths and challenges in liquidity, profitability, and asset management. The authors recommended that these Cooperatives focus on enhancing their financial management practices to improve overall performance and sustainability.

Baby and Agnus (2024) examined a systematic review of financial performance in the Manufacturing Industry. The research underscores the multifaceted nature of factors like Internal and External factors affecting financial performance in manufacturing firms and offers valuable insights for future studies exploring the interplay between these factors.

Uma Maheswari (2024) conducted a study on Analysis of Production, Productivity and Profitability Performances of Select Co-Operative Sugar Mills in Tamil Nadu. This study concluded that enhancing sugar production, improving cost productivity, and increasing asset efficiency are crucial for boosting profitability in cooperative sugar mills.

Research gap :

Previous studies have primarily focused on various aspects of the Indian Farmers Fertilizer Cooperative Limited (IFFCO), including cost-profit analysis, marketing strategies, implementation processes, working capital management, and its role in India's economic development. However, there has been a lack of focused research on the financial sustainability of IFFCO. This study addresses this gap by specifically analysing financial sustainability through financial ratio analysis and comparative balance sheet evaluation. By doing so, it provides a deeper insight into IFFCO's long-term financial health, offering a perspective that has not been extensively explored in previous research.

Statement of the Problem:

Cooperatives are one of the most important forms of business organisations. They are lifelines for many rural communities. They play critical roles by providing Financial Access, Supporting rural development, Empowering communities, Creating jobs, Improving Healthcare, Promoting gender equality, Enhancing living standards, Preventing exploitation etc. They play a significant role in fostering economic and social development, especially in rural and underserved communities. However, the financial sustainability of these organizations remains a critical challenge. Unlike traditional businesses, Cooperatives operate under unique principles, prioritizing member-welfare

over profits, which often limits their ability to adopt conventional financial models. Despite their potential, many cooperatives struggle with financial sustainability due to inadequate strategies, poor financial management, and limited access to resources, this often leads to operational inefficiencies, member dissatisfaction, and eventual collapses. Identifying and analysing the strategies and practices that lead to financial success in cooperatives is crucial to overcome these challenges.

While studies have explored the financial challenges faced by cooperatives, there is limited research documenting successful stories and practices that ensure sustainability. Learning from success stories can provide a blueprint for struggling cooperatives to enhance their financial health and resilience. Financial sustainability is the ability of the business organisations to meet their current financial obligations while also ensuring long-term financial stability. It involves balancing revenue and expenses, managing debt, and keeping enough reserves to cover future investments and contingencies. Financial sustainability includes, a consistent return on investment, healthy level of revenue, the ability to make profit after expenses, the strong financial management practices, a diverse funding base, prudent risk management strategies etc. This study aims to examine the financial strategies and practices adopted by successful cooperatives, providing insights and recommendations that can be replicated across similar organisations to achieve financial sustainability.

At this juncture, there are certain research questions arise in the minds of the researcher namely: i) what is the 'Reserves and surplus position' of the select cooperative during the period under review? ii) What is the liquidity position of the select cooperative? iii) What is the return on capital employed? iv) What is the profitability of the select cooperatives? v) What is the financial viability of the select cooperative? vi) What is the financial sustainability of the select cooperative during the review period? The questions which need to be answered through research study.

Objectives of the Study:

- To present a case of financially sustainable and successful Indian cooperative with background of understanding the factors contributing for financial stability and resilience.
- To identify strategies and practices adopted by the cooperative for financial sustainability that can serve as benchmark for others.
- To Investigate the innovative financial models and revenue-generating mechanisms that cooperatives in India can adopt to achieve long-term

sustainability.

- To find out the key challenges faced by such Cooperative in course of its business that affect its financial sustainability.
- To offer Suggestions for cooperatives to improve financial management practices and enhance sustainability of the Indian cooperatives context.

Methodology:

The research is a case study describing the financial sustainability by using the secondary data published in the e-source. Secondary Data were collected from the government reports, cooperative Enterprise's financial statements, and reports from financial institutions. Such data were analysed to identify trends in financial performance and sustainability. This includes analysing the working capital, profitability, and growth patterns over last ten years.

Profile of IFFCO:

Indian Farmers Fertilizer Cooperative Ltd was founded in the year 1967 with 57 member-cooperatives with the capital of Rs.5.49 lakhs. Its headquarters is in New Delhi. It is a multi-state cooperative society. It has 5 plants and over 20 states it has offices in India.

The plants are located in Kalol, Kandla, Phulpur, Anoka and Paradeep. It expanded its business through strategic acquisitions and Joint Ventures in Jordan, Senegal, UAE, and Oman. Its main moto is "Farmers First". Now it has over 35,000 member- cooperatives and it covers more than 50 million Indian Farmers. Its important goals are providing high quality fertilizers to farmers, improving the quality of life of farmers, their families and their community, being socially responsible. Today, it is the biggest Cooperative in the world by turnover on GDP per capita (as per world cooperative monitor 2021).Over the last 54 years, IFFCO has evolved into an ecosystem comprising of products, services and support systems that ensure fairness, transparency and sustainable practices. Its shares are listed in the NCDEX stock exchange, a public limited company that began operations in 2003 and IFFCO was ranked 65th on the Fortune India 500 list of India's biggest corporations as of 2024.

Focus of IFFCO :

- Achieving specific targets for Energy Saving through modernization of existing plants.
- Diversification in E-Commerce and promoting venture capital projects.

- Set up Credit Rating Agency for cooperative societies.
- Manufacture of new fertilizer products, setting up Agro-Processing units and Agro Chemicals-Projects.
- Setting up Fertilizer projects overseas through strategic Alliances.

Products and Services of IFFCO:

The Products and Services provided by the IFFCO are Primary nutrients, Secondary nutrients, water soluble Fertilisers, organic and bio-fertilisers, Micro-nutrients, Nano fertilisers, urban gardening, General Insurance, Logistics, Kisan SEZ (Special Economic Zone), Rural Retail, Online Multi-commodity Exchange, Rural Telecom, Organic Agri-input, Rural Finance, Frozen Food and Agro Chemicals.

Associates and Subsidiaries of IFFCO:

The IFFCO-TOKIO General Insurance Company Ltd, IFFCO e-Bazar Ltd, IFFCO Kisan SEZ Ltd, IFFCO Kisan Sanchar Ltd, IFFCO-MC Crop Science Private Ltd, IFFCO Kisan Finance Ltd, Oman India Fertiliser Company SAOC, National Commodity & Derivatives Exchange Ltd., Kisan International Trading FZE, Indian Potash Ltd, Jordan India Fertilizer Company LLC, Sikkim IFFCO Organics Ltd, Industries Chimiques Du Senegal, CN IFFCO Private Ltd.

Awards and Accolades of IFFCO:

The IFFCO has received so many awards and honours for its work in the fertilizer industry, Cooperative movement and digital technology. The various awards received are, International Fertiliser Association Awards, Fertilizer association of India Awards, IBM Awards, Greentech Environment Excellence Awards, CII Environment Best Practices Awards, Coop Global Awards for Cooperative Excellence, National Energy Conservation Awards, PRSI Awards. IFFCO has ranked 65th on the Fortune India 500 list of India's biggest corporations as of 2024.

Comparative Balance sheet Analysis:

Comparative Balance Sheet analysis is a method used to evaluate and compare a business enterprise's financial position over two or more periods. This analysis provides insights into changes in the enterprise's assets, liabilities, and equity: helps investors, analysts, and management to understand the financial performance and health of the business organisation over time. A competitive balance sheet shows the value of assets, liabilities, and equity for two or more periods side by side. This makes it easier to see how the financial position has changed over time. By looking at the comparative balance sheet,

stakeholders can gain a clear picture of where a business enterprise stands and how its financial position is evolving over time. This method allows for a deep dive into trends and can highlight areas that may need attention or that shows positive growth.

Table No. 1 : Comparative Balance sheet

Sources Of Funds	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2021-22	2022-23	2023-24
Equity Share capital	426	425	424	421	421	628	628	627	634	613
Reserves and Surplus	6,084	6,471	7,087	7,687	14,886	15,642	16,545	18,170	19,924	22,840
Net worth	6,510	6,896	7,512	8,107	15,307	16,269	17,174	18,797	20,559	23,452
Borrowing Long term	342	291	128	1509	1125	750	975	450	1000	675
Borrowing Short term	9,154	10,445	14,116	10,124	9,413	13,282	13,495	7,473	8,248	9,095
Deferred tax liability	400	373	369	599	771	809	576	536	508	492
Liabilities Provision	2,034	2,626	2,855	2,431	3,633	3,940	4,382	3,494	5,519	5,471
Total	18,440	20,631	24,979	22,771	30,249	35,051	36,601	30,750	35,883	31,186

(in Crores Rounded Figure)

The above table No.1 shows the ten years Balance sheet of IFFCO. The equity share capital remained relatively stable from 2013-14 to 2015-16, averaging Rs. 425 crore. A slight decline occurred in 2016-17 to 2017-18, followed by a significant increase in 2018-19 to Rs. 628 crore. This increase suggests a potential equity infusion or share issuance. However, a decreasing trend is observed from 2020-21 onwards, reaching Rs. 613 crore in 2022-23, indicating possible share buy backs or capital restructuring. The reserves and surplus show a consistent upward trajectory, growing from Rs. 6084 crore in 2013-14 to Rs. 22, 839 crore in 2022-23. This steady increase reflects the firm's ability to retain earnings and strengthen its financial position over the years.

Net worth, calculated as the sum of equity share capital and reserves and surplus, mirrors the growth in reserves. It increased from Rs. 6,510 crore in 2013-14 to Rs. 23,542 crore in 2022-23, indicating a robust enhancement in

shareholders' value. The provisions saw an upward trend, especially between 2013-14 and 2019-20, increasing from Rs. 2, 034 crore to Rs. 4,382 crore. A significant rise occurred in 2021-22 to Rs. 5, 519 crore, stabilizing at Rs. 5,471 crore in 2022-23. This trend may reflect the increased allocations for future liabilities or contingencies. Thus, the reserves and surplus funds guard the cooperatives from the shocks, and the surplus amount that cannot be withdrawn, guaranteeing financial stability.

Ratio Analysis:

Ratio analysis is a technique used to evaluate the financial performance and position of a enterprise by analysing various relationship between items in its financial statements. Ratios provide insights into different aspects of a business operations, such as liquidity, Profitability, solvency, and efficiency, which are essential for decision-making by investors, creditors, and management. One can gain a comprehensive view of the enterprise's financial health, make better investment decisions, and implement strategies for improvement.

Table No. 2: Significant Financial Ratios of IFFCO

Financial Ratios	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Operating profit to turnover (%)	4.98	6.83	5.17	7.68	2.19	6.36	6.92	9.04	3.62	4.24
Return on capital employed (%)	7.52	10.52	9.60	8.86	8.61	7.46	71.39	10.29	9.95	15.01
Profit after tax to Net worth (%)	4.90	9.38	9.39	8.45	6.12	5.17	5.85	9.33	9.16	13.02
Working capital Turnover	2.18	2.54	2.37	1.72	1.89	2.23	1.95	2.13	3.42	4.28
Current ratios	6.49	5.79	6.85	6.48	4.26	5.08	4.99	4.44	3.60	4.01
Quick Ratio	4.93	4.65	5.91	5.45	3.60	4.07	4.18	3.66	2.54	2.98
Debt equity Ratio	1.46	1.56	1.90	1.43	0.69	0.86	0.84	0.42	0.45	0.42

The above table shows the significant financial ratios of the Indian Farmers Fertiliser cooperative limited. The financial ratios of the last 10 years period has taken for the analysis and interpretation. Fluctuating performance is there in the operating profit to Turnover. It has peaked in 2016-17 at 7.68 percent and again in 2020-21 at 9.04 percent. It stabilized at around 4.24 percent in 2022-23. The firm has faced fluctuations in operational efficiency, with significant dips in 2017-18 and 2021-22, indicating possible challenges in cost control or revenue generation during these years. The return on capital employed is increasing steadily after 2018-19, reaching 15 percent in 2022-23, the highest in the decade. Improved utilization of capital, suggesting enhanced profitability and operational efficiency over the years, especially post 2019-20.

The profit after tax rose significantly from 4.90 percent in 2013-14 to 13.02 percent in 2022-23, with consistent growth after 2019-20. It indicates the increased profitability in relation to shareholders' equity. The IFFCO's ability to generate returns for its shareholders has strengthened, especially in the recent years. In working capital turnover there was a significant improvement, rising from 2.18 in 2013-14 to 4.28 in 2022-23. Improved efficiency in utilising working capital to generate sales. A higher ratio in recent years implied better management of current assets and liabilities. The advisable current ratio of the firm is 2:1. A decline over time suggests reduced short-term liquidity, though the ratio is still above the benchmark of 2, indicating sufficient ability to meet short term obligations. The quick ratio of the IFFCO declined from 4.93 in 2013-14 to 2.98 in 2022-23, mirroring the trend of the current ratio. Decrease in liquidity strength, but still above 1.0, indicating the cooperative can meet its short-term obligations without relying on inventory. The debt-to-equity ratio decreased significantly from 1.46 in 2013-14 to 0.42 in 2022-23, stabilizing around 0.42 in the last three years. Indicates a strong reduction in financial leverage and reliance on debt. The Cooperative is moving toward a more conservative capital structure, reducing financial risk. IFFCO's financial health has improved significantly in terms of profitability, leverage, and efficiency in the last few years, with some minor concerns around operational profit consistency and liquidity ratios. The firm is well-positioned for sustainable growth if it maintains its efficiency and profitability trends.

Findings:

- The IFFCO's net worth has shown substantial growth, primarily driven by the consistent increase in reserves and surplus.

- The increase in provisions highlights a prudent approach towards future uncertainties and liabilities.
- The Organization is having very healthy revenue. The sales volume of Fertilizers is 128 lakh metric tons in 2023.
- They have the ability to make profit after expenses continuously. The Net profit after tax is Rs.3,053 crores in 2023.
- They are following strong financial management practices like Risk Management, Budgeting and Financial Planning.
- IFFCO is concentrating on diversified products and services.
- E-procurement system, E-tendering strategies they are following to increase the Sales and Profit.(E-Commerce)
- IFFCO is following the risk management techniques like insurance for agriculture, Risk assessment by using credit risk management software ,diversification, Hedging, contingency planning.
- ERP (Enterprise Resource Planning) SAP (Systems, Applications and Products) Software has implemented in IFFCO. It helps to calculate Accounts Receivables and Accounts Payables aging wise statements easily.

Suggestions:

Based on the above Findings the following recommendations are provided for further financial strength.

- Like IFFCO the other cooperative organizations shall maintain debt equity ratio and run on with owned funds.
- Risk assessment and management system as adopted by IFFCO can be continued by other cooperatives.
- As systematic financial management practices are being adopted in all the domains of financial management efficiently from financial planning to financial control, this may be adopted by others also.

Conclusion:

IFFCO's financial health has improved significantly in terms of profitability, leverage, and efficiency in the last few years, with some minor concerns around operational profit consistency and liquidity ratios. The Cooperative is well-positioned for sustainable growth if it maintains its efficiency and profitability trends. Based on the foregone analysis and factors it is concluded that the IFFCO has been at commanding heights in keeping Financial

Sustainability and committed to take forward in future with the support of stakeholders moreover.

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Relevance of Co-operative Societies to Attaining Sustainable Development of Indian Rural Economy

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Abstract:

The paper aims at analyzing the relevance of sustainable development to all aspects of rural economy of India, Consisting to economic, Social and environmental development. The analysis is based mainly on secondary information as the scope of the paper is very large i.e. entire rural economy of Indian Co-operative enterprises are voluntary well spread and democratically based people's Organizations, mainly by weaker sections of the Indian rural sector consisting about 65-70 percent of the population. As the co-operatives are well spread among rural folk, acceptability of their works and direction are naturally acceptable to them. This feature of Co-operatives make them suitable agency for securing sustainable development in the economic, social and environmental fields.

Sustainable Development implies that the available resources should be used for economic development in such a rational manner that they should not be exhausted immediately in the present. It means the concerned resources should last for more and more years so that in future growth should not hampered for want of resources. Co-operative enterprises are suitably placed to secure these objectives in rural India.

Co-operative societies provide membership of each family in accordance to its family size. Likewise all members are treated equal and they enjoy equal voting rights as against practice in joint stock Company where ownership of capital determines the significance and share of members in management. As a result, the managing ability of poor people in joint stock Company is not fully utilized and large proportion of their managing quality is allowed to be wasted in joint stock companies. But in co-operative societies, member's managing capacity irrespective of difference in ownership of capital is not destroyed.

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Thus it gives rise to attainment of sustainable development.

Co-operative societies by rational use of natural resources promote sustainability. Check and balance on cutting trees and wasting forests, rational use of underground drinking water, proper utilization of river water for irrigation and directing their members to effect low emission of carbon gases in industries and vehicles, co-operative societies encourage environmental protection. In the full papers the other provisions of promoting sustainable development will be discussed in detail.

Key Words:

Grain Storage, Bhagalpur, National Agriculture Policy

Introduction:

This paper aims at analysing the role of co-operative societies, mainly, PACS in attaining sustainable development in rural sector of Indian economy. Sustainable development implies that the available resources should be used for economic development in such a rational manner that they i.e. limited resources, should not be exhausted immediately in the present or in the future without having found their alternatives. It means that the concerned resources should last for more and more years so that in future, growth should not be hampered for want of resources. Co-operative societies are suitably placed to secure these objectives in rural areas.

The national agricultural policy (NAP), 2000 mentions :

- (i) the growth that is based on efficient use of resources and Country's soil, water and bio-diversity,
- (ii) growth with equity i.e. growth which is widespread across regions and covers all farmers.
- (iii) growth that is demand driven and caters to domestic markets as well as maximizes benefits from exports of agricultural products in the face of challenges arising from economic liberalization and globalization.
- (iv) growth that is sustainable technologically, environmentally, and economically co-operative societies i.e. primary agricultural co-operative credit societies and other primary societies like dairy, fishery, labour and women co-operatives are well suited to secure the goals of sustainable development to all aspects of rural economy of India consisting economic, social and environmental development. The analysis has been divided into two parts (i) relating to role of co-

operative societies in Indian economy to secure sustainable development for rural sector (ii) the case study of Shahkund Community Development, Block, District Bhagalpur, Bihar. The second parts of the paper, though limited, makes the study objective and factual. Till date from its inception in 1904 co-operative societies have covered entire rural economy of India, i.e. about 98 percent. Non-credit societies are also being popularized in rural sector. Co-operative societies are voluntary and natural and they are democratically based people's organization as well as spread among rural folk, acceptability of their works and direction are naturally adoptable to the rural mass in generally and weaker section of the society in particular.

Co-operative societies and sustainable development in India's Rural Economy:

The main economic activities in Indian rural economy are agriculture and activities relating to agriculture such as dairy, fishery, poultry, goat rearing and agro based cottage industries, rural processing and marketing activities, rural infrastructures' development, income generation and employment creation credit activities for capital formation labour and poverty alleviation activities in which all the above-mentioned activities are instrumental. Recently current food security has also become an important goal of sustainable development. About 25 percent rural people are below poverty lime. Agricultural and its diversification are the main source of poverty eradication. The PACS, co-operative farming societies may use main resource of rural production; culturable land in such a manner that its productivity remains intact. It can be obtained through consolidation of land holdings in co-operative farming societies. Such societies facilitate to reap the fruit of large-scale farming to even small and marginal farmers. Through PACS and CARDBs, adequate capital may be arranged at reasonable rate of interest without hampering financial capacity of farmers.

Attempt made by the Government of India to strengthen and spread the various types of primary societies in rural areas.

The Ministry of Co-operation, GOI separately came into existence on 6th July, 2021. Since then, a lot of steps have been taken to strengthen the co-operative movement in the country. Important among these steps are passing at Multi State co-operative societies (Amendment), Act, 2011, Making Model Bye-laws for PACS, computerization of PACS, world's largest decentralized

strong plan in co-operative sector, formation of new farmer producer organizations (FPOs) by PACS, LPG distribution by PACS in Jharkhand, access of PACS to generic medicines in rural areas under PM Bhartiya Jan Kendra, PACS or Pradhan Mantri Kisan Samridhi Kendra (PMKSK), Convergence of PM- Kishan scheme at PACS level and introducing science in the functioning of different types of PACS and many other schemes and reforms.

Passing Multi State Co-operative societies (amendment) Act, 2023 has brought about improvement in MSCS Act, 2002. This amendment enabled the co-operative societies to make administration effective to increase transparency in the working of co-operative societies to increase their accountability to their members, to bring about reforms in electoral process and the amendment also incorporated the provisions of the 97 constitutional amendment Act, 2011. This Act also has affected similarity in the organization and functioning of PACS through at the country. Such provisions enabled PACS to realise economic sustainability through cooperatives in the country.

The GOI in consultation with all the Regional/State level stake holders framed the Model bye-laws to make PACS multipurpose, multidimensional and transparent entities. It also aims at making the functioning of the societies similar through the country. This byelaw enabled the societies to serve the weaker section of the society, especially women and SC/ST effectively and alike in the country. Resources of the societies cannot be exhausted their providing them sustainability in respect of resources.

The government of India processed the proposal to set up multipurpose PACS dairy, fishery co-operatives in every village/Gram Panchayat in the next Five years and other national level organization. 1961 such societies are in stage of establishment in 23 States and UTs. They will consistently raise the sustainability of the income of their members.

Construction of Grain Storage:

The national level organizations under 22 states/UTs. have planned to the largest grain storage in order to reduce the damage of agricultural products without proper godowns ours. Proper storage of products will enhance its marketability and prices. Hence PACS level god owns are have been proposed to be constructed. 1711 PACS have been identified in the country to constrict godowns under pilot project besides this, 24,470 PACS have provide banking and other services to consumers.

To boost up farmers income, proper market linkage is essential to give farmers

fair prices of their products. The GOI has allowed 1100 farmer producer organizations (FPOs) by PACS. Such activity has been supported by NCDC in the blocks which lack FPOs. This will increase PACS income sustainability.

Jharkhand has been provided facility to apply for LPG distributor ship. It will increase PACS' economic activities. More than 200 PACS have also applied for retail petrol and companies (OMCs). It will open the door of economic sustainability for PACS.

Opening so far agricultural water pumps under the scheme of PM-Kishan at PACS level. Success of this scheme will bring environmental sustainability. Under the scheme PMKSK (Pradhan Mantri Kishan Samridhi Kendra's), opening of fertilizers and related services, the fertility of soils and the pace of soil conservation will improve.

Permission to provide with the facility of micro-ATMs to dairy and fishery cooperative societies and Bank Mitra scheme will suffice the stake holders' need of finance as and when requires.

In social development and equal distribution of income of rural sector man-women equality, promotion of education and health services and indiscrimination among people based on caste and creed will bring social sustainability. Providing facility to PACS for distribution of consumer goods at fair prices will save them from exploitation of traders. Land is the main source of income in rural areas which is very unevenly distributed. 70 percent Land belongs to absentee landowners. Its productivity decays due to indifferent attitude of the actual owners, who are not cultivators. Share croppers do not take interest in maintaining and improving the productivity of Land. If Co-operative farming societies are organized among such owners, productivity of the land will be equally utilized and its decay will stop. Social benefits accrue to landowners, farm labour who get remuneration of their labour rendered to the society. The status of men-women members of any types of co-operative societies are assumed to be equal. The productivity of women labour is not allowed to waste in co-operative societies, leading to their sustainable use. Co-operatives provide equal opportunity of education and health to all members irrespective of their education and economic status. Consequently, educational ability of people and health facilities to poor people get equally utilized. Co-operative societies provide membership to each family in accordance with its family size. Likewise, all members are treated equal and they enjoy equal voting rights as against practice in joint stock companies, where ownership of amount of capital determines the

significance and shares of members in management. As a result, the managing ability of poor people in joint stock companies declines. But in co-operative societies, members, managing capacity irrespective of difference in ownership of Capital is not destroyed. This gives rise to attainment of sustainable development.

The role and significance of co-operative societies in attaining sustainable development can be studied but only in limited areas within individual capacity and in limited time period. Keeping individual capacity and limited time, a case study of Shahkund CDP, Bhagalpur, district of Bihar has been made. It will provide the study objectivity to a great extent.

Case study of Shahkund CDP in the District of Bhagalpur, Bihar:

Shahkund is situated in the south west of district headquarters, Bhagalpur at the distance of 25 kilometers. It is an old Block of Bhagalpur district. It is mainly agriculturally predominant Block. It is about 10 kilometers south of Akbarnagar Station of Eastern Railway and connected with fair weather roads from all sides and NH passes from Sultanganj to Bhagalpur in the north side by the side of Eastern Railway. Its total population is 188,078 consisting 100,033 male and 88078 female. The member of SC/ST population is 25127/29 as per 2011 census, SC comprises male 13356 and female 11771. ST's population is only 29 among which 12 male and 17 are female. Agricultural labour is about 15060. The condition of infrastructure i.e. transport, banks, market and schools is satisfactory.

Table No.1 : Different types of societies in Shahkund

Sl No.	Name of the Society	Number of Society	Percentage of total societies
1	PACS	19	41.3
2	Handloom Textile and Weaving Cooperatives	2	4.35
3	Marketing Society	1	2.17
4	Women Welfare Societies	1	2.17
5	Honey Bees cooperative Societies	1	2.17
6	Fishery Cooperatives	1	2.17
Aggregate		46	100.00

Source: - <http://cooperatives.gov.in/block:dashboard/block/IGBG>

The different types of cooperative societies in Shahkund Block have been shown in Table No.- 1 which reveals that total number of cooperative societies is 46. The highest number of societies is PACS -19 which is 41.3 percent of the aggregate number of societies. The next is handloom and weaving co-operative societies-2 in number. It is (4.35) percent of the total. Other society each is only 1 in number (2.17) percent²¹. They are marketing society women welfare society, Honey Bees society and fishery Society.

Table No.2 : Functional status of cooperative societies

Sl. No.	Name of Co-operative Societies	Number of Societies
1	Functional	42
2	Non-functional/dormant	04
3	Under liquidation	00
4	Urban	00
5	Rural	46

Source: - <http://cooperatives.gov.in/block:dashboard/block/IGBG>

Functional status of cooperative societies has been shown table No. 2. Out of 46 societies, 42 are functional, non-functional/dormant societies are 4 only. All societies are rural. No society is under liquidation.

TableNo. 3 : Types wise number of cooperatives

Sl No.	Name of cooperative society	No of societies	Members
1	Primary Agricultural loan societies	19	31672
2	Dairy cooperatives	21	1028
3	Fishery cooperatives societies	01	1115
4	Handlooms and weaver cooperatives	02	370
5	Honey bee cooperatives	01	27
6	Women welfare co-operatives	01	6945
7	Marketing co-operatives	01	399
Aggregate		46	41,556

The society wise members points at that the dairies (21) have 1028 members, primary agricultural loan societies (19) have the highest number of members 31,672, handloom and weaver societies (2) have 370 members, fishery

cooperatives (01) has 1115 members, women welfare co-operative societies (01) has 6945 members. Marketing society (1) has 399 members and the lowest members only (27) are associated with honey bee co-operative society (1). The Aggregate number of members are 41,556 associated with 46 societies working at grass root level in the block.

Table No. 4 : Village panchayat wise number of societies

Sl No.	Name of Gram Panchayat	Number of Society	Percentage of society	Total number of Members	Percentage of Members
1	Bhulni	5	10.87	1754	4.22
2	Hajipur	4	8.70	651	1.57
3	Sajour	2	4.35	784	1.89
4	Amba	2	4.35	2705	6.51
5	Dariyapur	2	4.35	1845	4.44
6	Kaswa Kherhi	3	6.52	10922	26.28
7	Harnath	1	2.17	806	1.94
8	Dindaylapur	3	6.52	2445	5.88
9	Govray	3	6.52	1134	2.73
10	Khaira	4	8.70	1688	4.06
11	Sarauni	4	8.70	1428	3.44
12	Kishanpur Amkhoriya	1	2.17	1091	2.63
13	Paeldominiya Mal	1	2.17	1045	2.51
14	Bethu	2	4.35	3827	9.21
15	Jagariya	2	4.35	2583	6.22
16	Daspur	2	4.35	748	1.80
17	Makandpur	2	4.35	2000	4.81
18	Khulni	2	4.35	2531	6.09
19	Basudevpur	1	2.17	1569	3.78
Total		46	100%	41556	100%

Village Panchayat wise number of societies. The highest number of different types of societies (10.87) are working in Bhulni Panchayat. 3 societies Hajipur, Khaira and Sarouni Panchayat each of them has 8.70 percent societies working there. 6.52 percent societies are in each of three Panchayat, viz. Govray, Dindaylapur and Kashwa Kherhi. 8 Societies Sajour, Amba, Dariyapur, Belthu, Jagariya, Daspur, Makandpur and Khullni Panchayat have remaining have each 4.35 percent societies. Four Societies Basudevpur, Paeldominiya Mal, Harnath and Kishanpur Amkhoriya Panchayat have each 2.17 percent societies.

Table No. 5 : Panchayat wise number of Village with Registered society

Sl No.	Name of Gram Panchayat	Total Number of Village	Registered society
1	Khaira	24	24
2	Sajour	10	10
3	Makandpur	6	6
4	Kaswa Kherahi	24	24
5	Amba	24	24
6	Paeldominiya mal	6	6
7	Sarauni	52	52
8	Belthu	6	6
9	Hajipur	12	12
10	Govray	18	18
11	Harnath	6	6
12	Dasपुर	22	22
13	Bhulni	60	60
14	Basudevपुर	19	19
15	Kishanपुर Amkhoriya	7	7
16	Jagariya	28	28
17	Dindayalपुर	33	33
18	Dariyapur	42	42
19	Khulni	40	40
Total		439	439

One Bhulni has 60 village with 60 registered societies. 3 villages have 40 to 52 registered societies, 42 and 28 Registered societies are in 2 villages each 4 village have 18,19 and 22 societies, each. From 2 to 12 societies each is in 7 villages. Total number of registered societies is 439 villages are 439 i.e. on an average one village has any type of one Registered society.

**Table No. 6 A : Procurement of Paddy by PACS and Vyapar Mandal
from 2021-2022 to 2024-2025**

Year	No. of PACS	Vyapar Mandal	No. of formers	Collection Paddy in MT	Advance CMR MT	To SFC against advance	Paddy to Rice Mills
2021-2022	19	1	2801	14090	9447.628	9447.628	0
2022-2023	19	1	1125	4337.659	2979.099	2979.99	0
2023-2024	19	1	1807	11909.57	8167.337	8167.337	11909.57
2024-2025	19	1	975	6792.637	421	1247	1484.405

As per Table 6A, the number of PACS and Vyapar Mandal is constant to 19 and 1 respectively. Number of farmers was highest in 2021-2022 (2801) which came down to 1125 in 2022-2023 and slightly increased to 1807 in 2023-2024 and again reduced to 975 in 2024-2025. The causes behind this declining trend are (i) the price fixed for paddy is often lower than market price and (ii) delay in procurement payment thereof by the PACS/Vyapar Mandal to the formers. The quantity shown in metric tone also maintains declining trend as revealed by the table. The entry of SFC is w.e.f. 2023-2024 is an attempt of the state government to boost up the moral of member formers of PACS. The Paddy sent to Rice Mills shows sharp declining trend from 2023-2024 (11909.57M.T) to (1484.405M.T) in 2024-2025. The reason behind declining number of members selling Paddy to the societies/Vyapar Mandal and later to SFC are the some besides more deduction in quantity of Paddy as drying of moisture. from procuring time to sending to rice mills for it processing.

In Table No. 6 B, 50 members of PACS haven selected on random basis information were obtained from them on procurement of Paddy from them and the data have been presented in Table No. 6 B below.

**Table No. 6 B : Procurement of Paddy/Rice by Vayapaar Mandal
(Data Based on interview of 50 members and the societies of the PAC)**

Year	No. of formers	Collection Paddy in MT	Advance CMR MT	To SFC against advance	Paddy to Rice Mills
2021-2022	50	200	190	180	Not known
2022-2023	50	635	300	275	
2023-2024	50	3650	250	225	
2024-2025	50	240	335	300	

The above Table shows that collection of Paddy in 2021-2022 was 200 M.T which rose to 635 M.T. (more than twice) which again went up to 3650, M.T. which amounts about six-fold over the previous year. And again, it declined to 240 M.T. the main factors responsible for this decline is due to mal practices by PACS in paddy procurement process. This discouraged the formers to keep themselves away from the societies.

The last date of Paddy procurement is 15 February, 2025. But till now January, 2025 only 15 M.T. of Paddy have been procured against the state target of 45 lake M.T. Hence on the direction of central government the chief secretary of Food and consumers preservation Department has directed to the all-divisional commissioner and DMs to accelerate. the process of Paddy purchase by the PACS in the state of Bihar. The central Government has constituted a team of the food corporation of India (FCI) and the states of prices of Co-operative department. The team will jointly examine the quality of Paddy and price paid to farmers at PACS level. The team will also see whether the sampling analysis, QCC and IGMR have been followed in Paddy procurement and sending them to rice mills or not. This information has been issued to all DMs to co-operate the Joint Enquiry Team.

The situation in the matter of wheat procurement is very unsatisfactory. In 2021-2022 only 377 farmers had sold wheat (1772.04 M.T.). in 2020-2023 only 5 PACS procured wheat (only 1.5 M.T.) Number of formers were insignificant. This procurement was made by S.F.C. The contribution of Vyapar Mandal was nil. in 2023-2024 only 2 PACS were ready to collect wheat from farmers but farmers had no faith in them. Consequently, quaintly procurement of wheat. in 2024-2025 very low 10 PACS, 1 Vyapar Mandal and SFC could collect wheat only 5.1 M.T.

Public Distribution System :

PACS plays a significant role in public Distribution system. Shahkund has no consumers; co-operative store. Its entire work i.e. distribution of consumer goods is done by PACS. They also make available loans for small agricultural machineries and tools to formers along with selling farm inputs like improved seeds, fertilizers and insecticides/pesticides. Three common service centers are working under 3 PACS/ Panchayats. In the rest 16 panchayats CSCs are in the process of stablishing. For the persons of CSCs in rest of 16 Panchayat training is in the process. Paddy and to some extent Wheat are being purchased by PACS in the block. In 17 and of 19 PACS, they have their own offices and Godown. One Godown is in the stage of construction and for the rest are application has been submitted to the government.

Conclusion:

Thus, if PACS are developed fully, they have potentiality of doing great service to their members and non-members in their area of operation. As it is apparent from description in previous sections of the paper co-operative societies are rendering valuable contribution to their area of operation and have immense potentiality to secure sustainable development. With effect from the present decade the 97th constitutional amendment, passing new Act by the Central Government and co-operative Minister's announcement to introduce science in the working of co-operative societies, they shall be competent enough to bring sustainable development, social justice and environmental conservation in rural regions.

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Financial Sustainability of Dairy Cooperatives in Puducherry

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Abstract:

This study investigate the sustainability of dairy cooperatives, select four dairy cooperative societies to analysis the performance in Puducherry. Dairy cooperatives is one of the prime sector for rural development and also providing employment opportunities of rural people. Dairy cooperatives support the farmers through fair pricing, supporting services like: AI, Veterinary services, Training, cattle feed, and farmers to get stable income. The study contains two major objectives to examine the financial performance of the selected dairy cooperatives, to analyse the key challenges faced by the dairy cooperatives and propose actionable strategies to strengthen their operational and financial sustainability. However, financial sustainability of these cooperatives face challenges including lack of infrastructure, lack of members participation, increasing operational costs, increasing private and local milk vendors.

This study identify sustainable practices that can enhance profitability, strengthen procurement networks and support income stability for farmer members. The findings aims to provide actionable recommendation for improving financial sustainability in dairy cooperatives, ensuring they remain vital contributions to rural economic development and farmer welfare in Puducherry.

Keywords:

Dairy cooperatives, financial sustainability

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Introduction:

Dairy cooperatives play an essential role in the agricultural economy of India, acting as a livelihood for small and marginal farmers by providing a reliable source of income and ensuring fair market access for their produce. In Puducherry, dairy cooperatives not only contribute to rural development but also foster social equity by empowering women and marginalized groups. Their unique community-centric approach has enabled them to become key players in the local dairy sector. However, the changing dynamics of the dairy market, along with operational challenges, necessitate a critical examination of their financial sustainability. This paper investigates the financial health of dairy cooperatives in Puducherry and explores strategies to enhance their resilience in a competitive environment.

Objectives:

To address these issues and enhance the effectiveness of dairy cooperatives, this study focuses on the following objectives:

- To examine the financial performance of the selected dairy cooperatives,
- To analyse the key challenges faced by the dairy cooperatives and propose actionable strategies to strengthen their operational and financial sustainability.

Methodology:

This research was collected both primary and secondary based data. The primary data was collected through proper schedule and data were collected from four Primary Milk Producers Cooperative Societies (PMPCSs) and the secondary data were collected from different sources namely audit reports, annual reports, published books, journals and other related scientific databases. The data were analyzed using tools such as average, Standard Deviation, Coefficient of Variation and Compound Annual Growth Rate (CAGR) and SWOT analysis to provide strong understanding of the cooperatives financial health and operational dynamics.

Sl.No	Name of the Societies	Profit/Loss
1	Embalam	Profit
2	Poraiyur	Profit
3	Thanikuppam	Loss
4	Thiruvandarkovil	Loss

The table provides an overview of the financial performance of selected dairy cooperatives based on their profit or loss status. It highlights the performance of four societies namely Embalam, Poraiyur, Thanikuppam and Thiruvandarkovil indicating that while Embalam and Poraiyur reported profits, Thanikuppam and Thiruvandarkovil incurred losses. The study analyzing the data and the factors contributing to their varied financial outcomes and exploring strategies to enhance the sustainability.

Overview of PMPCS:

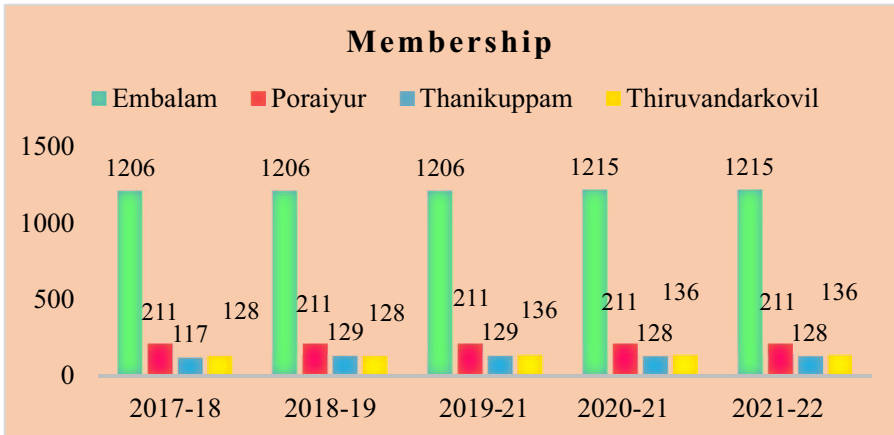
In Puducherry, approximately 45,063 milk producers have registered as members of the Primary Milk Producers Cooperative Societies (PMPCS) at the village level, with around 7,812 actively participating. Currently, 108 societies are operating, though only 101 are functional, while five remains inactive. These societies procure milk from milk producers about 70,900 liters of milk daily, selling a portion locally and sending the surplus milk to the milk union through 25 Bulk Milk Cooling Centers across the region. Milk is collected directly from the members and societies receive payments from the union every 15 days at a rate of Rs.35 per liter, based on milk quality.

Membership Details:

Table 1 presents the membership details of selected dairy cooperatives namely Embalam, Poraiyur, Thanikuppam and Thiruvandarkovil over a five-year period from 2017-18 to 2021-22. The key financial indicators provided are the average, Standard Deviation (SD), Coefficient of Variation (CV) and Compound Annual Growth Rate (CAGR) for each cooperative.

Table 1: Membership

Year	Societies			
	Embalam	Poraiyur	Thanikuppam	Thiruvandarkovil
2017-18	1206	211	117	128
2018-19	1206	211	129	128
2019-20	1206	211	129	136
2020-21	1215	211	128	136
2021-22	1215	211	128	136
Average	1209.6	211	126.2	132.8
SD	4.93	0.00	5.17	4.38
CV	0.00	0.00	0.04	0.03
CAGR	0.15%	0.00%	1.81%	1.22%

Figure 1: Membership**Embalam:**

- The average membership is 1209.6, showing slight fluctuations across the years. The SD of 4.93 indicates that the performance is relatively stable with minima variation. The CV is 0.00, confirming no relative variability in the data. The CAGR is 0.15%, indicating a very modest growth rate over the five-year period.

Poraiyur:

- The membership of Poraiyur remains constant across all years, with an average of 211. The SD is 0.00, indicating no variation and CV is also 0.00, signifying complete stability in its financial outcomes. The CAGR is 0.00%, reflecting no growth or decline over the period.

Thanikuppam:

- The average membership of Thanikuppam is 126.2, with a SD of 5.17, suggesting some fluctuations in its performance over the years. The CV of 0.04 indicates low but noticeable variability relative to the average. CAGR of 1.81% points to a positive growth trend, although the performance is lower compared to Embalam and Poraiyur.

Thiruvandarkovil:

- Thiruvandarkovil average membership stands at 132.8. The SD of 4.38 and CV of 0.03 both suggest a moderate level of variability, though the financial outcomes are relatively stable. With a CAGR of 1.22%, there is moderate growth in Thiruvandarkovil financial performance over the analyzed period.

It shows a steady trend in the membership from 2017-18 to 2021-22. Embalam and Poraiyur remained stable, while Thanikuppam and Thiruvandarkovil showed moderate growth, with Thanikuppam recording the highest CAGR of 1.81%.

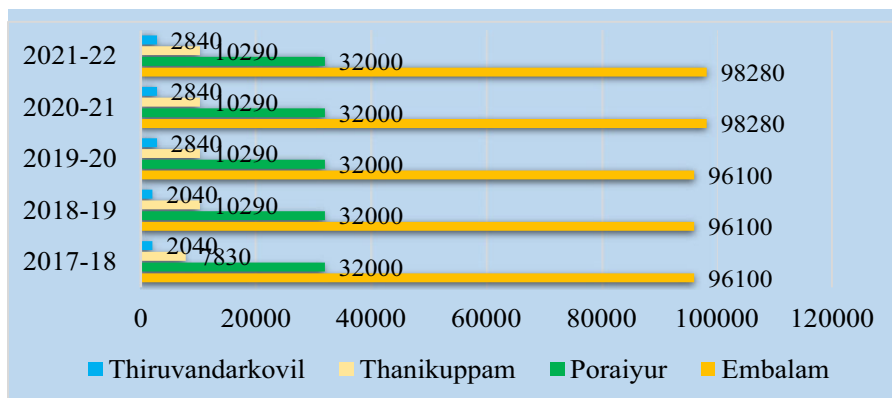
Details of Share Capital:

The share capital trends of selected dairy cooperatives over a five-year period from 2017-18 to 2021-22. It provides insights into their average share capital, CAGR and variability (SD and CV).

Table 2: Share Capital (Rs)

Year	Societies			
	Embalam	Poraiyur	Thanikuppam	Thiruvandarkovil
2017-18	96100	32000	7830	2040
2018-19	96100	32000	10290	2040
2019-20	96100	32000	10290	2840
2020-21	98280	32000	10290	2840
2021-22	98280	32000	10290	2840
Average	96972	32000	9798	2520
SD	1194.04	0.00	1100.15	438.18
CV	0.01	0.00	0.11	0.17
CAGR	0.45%	0.00%	5.62%	6.84%

Figure 2: Share Capital (Rs.)



Embalam:

- The average share capital is ₹ 96,972, with minimal variability indicated by an SD of ₹ 1,194.04 and CV of 0.01. CAGR of 0.45% shows steady growth over the years.

Poraiyur:

- Poraiyur maintains a constant share capital of ₹ 32,000 across all years, resulting in zero SD and CV. With a CAGR of 0.00%, there is no growth or decline, indicating consistent but stagnant performance in increasing its share capital.

Thanikuppam:

- The average share capital is ₹ 9,798, with moderate fluctuations reflected by an SD of ₹ 1,100.15 and CV of 0.11. CAGR of 5.62% significant substantial growth, showing the society ability to expand its capital.

Thiruvandarkovil:

- The average share capital is rs 2,520, with noticeable variability indicated by an SD of rs 438.18 and the highest CV of 0.17 among the cooperatives. CAGR of 6.84% highlights significant growth, highlighting the society effort to improve its capital position over time.

It highlights a stable trend in share capital Embalam and Poraiyur, with minimal growth reflected in low CV and CAGR values. Thanikuppam and Thiruvandarkovil show notable growth, with CAGR of 5.62% and 6.84%.

Details of Milk Procurement:

The milk procurement of selected societies the years 2017-18 to 2021-22 highlights the variations in procurement volumes of each societies over a five year period. key statistical measures such as the average procurement, SD, CV and CAGR have been calculated to analyze trends and variability in procurement at each societies.

Table 3: Procurement

Year	Societies			
	Embalam	Poraiyur	Thanikuppam	Thiruvandarkovil
2017-18	27610221	5162729	951795	1340754
2018-19	26713340	3592411	494353	1191589
2019-20	27304796	5644117	384763	1293217
2020-21	27274982	6437177	389612	1021138
2021-22	31256825	6543175	394461	768496
Average	28032032.8	5475921.8	522996.8	1123038.8
SD	1831540.33	1197605.24	243982.53	232993.58
CV	0.07	0.22	0.47	0.21
CAGR	2.51%	4.85%	-16.15%	-10.53%

Embalam:

- Embalam consistently recorded the highest procurement over the years, with a CAGR of 2.51%, indicating a modest but steady growth. With a low CV of 0.07, the procurement remained relatively stable, reflecting a consistent supply pattern.

Poraiyur:

- Poraiyur shows significant growth in milk procurement, achieving the highest CAGR of 4.85%. CV of 0.22 shows moderate variability in procurement levels, possibly influenced by external factors such as production cycles and market conditions.

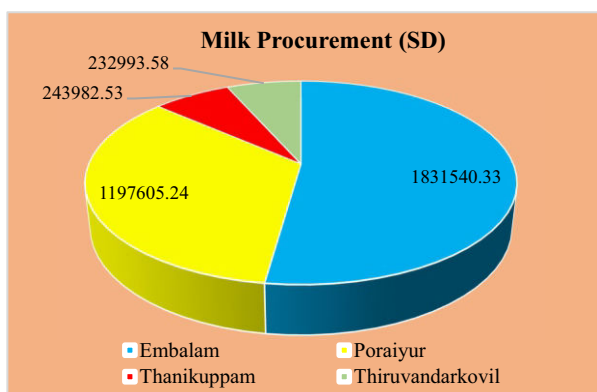
Thanikuppam:

- Thanikuppam exhibited a sharp decline in milk procurement, with a negative CAGR of -16.15%. This indicate challenges such as reduced milk production or operational inefficiencies. The high CV of 0.47 suggests significant fluctuations in procurement over the years.

Thiruvandarkovil:

- Thiruvandarkovil also showed a declining trend, with a CAGR of -10.53%. CV of 0.21 indicates moderate variability, the society shows inconsistencies in milk procurement.

Figure 3: Procurement



Pie chart indicates the SD of societies milk procurement, data from 2017-18 to 2021-22. Embalam and Poraiyur exhibit significantly higher variability compared to Thanikuppam and Thiruvandarkovil, suggesting greater fluctuations in their values over the years.

Details of Milk Sales:

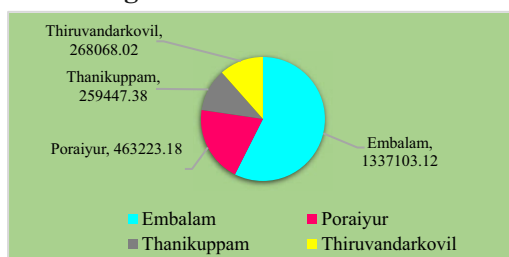
It highlights trends in sales volume, growth rates, stability and overall market performance of each society. This analysis helps assess the strengths and challenges in local milk procurement and distribution.

Table 4: Local sales (Rs.)

Year	Societies			
	Embalam	Poraiyur	Thanikuppam	Thiruvandarkovil
2017-18	4822697	1615734	659290	310446
2018-19	5619244	2045516	78360	902881
2019-20	6475150	2475299	78425	397936
2020-21	7727945	2546767	78892	320414
2021-22	7933552	2783648	80934	238745
Average	6515717.6	2293392.8	195180.2	434084.4
SD	1337103.12	463223.18	259447.38	268068.02
CV	0.21	0.20	1.33	0.62
CAGR	10.47%	11.49%	-34.26%	-5.12%

Table 4 reveals that Embalam and Poraiyur have shown steady growth in milk sales, with a Compound Annual Growth Rate (CAGR) of 10.47% and 11.49% respectively. This indicates a consistent increase in demand and supply. In contrast, Thanikuppam and Thiruvandarkovil have experienced a declining trend in sales, with negative CAGR values of -34.26% and -5.12%. This suggests a significant reduction in milk sales, strategic measures, such as marketing efforts, improving supply chain efficiency.

Figure 4: Local Milk Sales



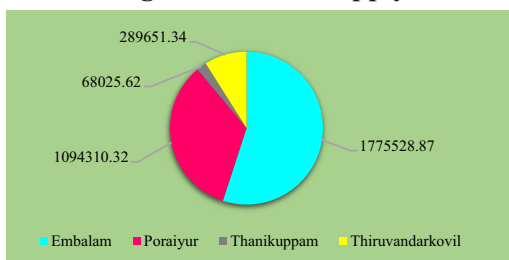
The pie chart illustrates the local milk sales. Embalam contributes the largest share 1,337,103.12, followed by Poraiyur 463,223.18. Thanikuppam 256,447.38 and Thiruvandarkovil 268,068.02 supply comparatively smaller portions, indicating significant difference in milk production.

Table 5: Union Supply

Year	Societies			
	Embalam	Poraiyur	Thanikuppam	Thiruvandarkovil
2017-18	25502602	4139705	241441	1133718
2018-19	23746171	2101060	427892	414767
2019-20	23594408	4324517	352695	993686
2020-21	22439223	4619155	364712	833197
2021-22	26946296	4822140	371128	606957
Average	24445740	4001315.4	351573.6	796465
SD	1775528.87	1094310.32	68025.62	289651.34
CV	0.07	0.27	0.19	0.36
CAGR	1.11%	3.10%	8.98%	-11.75%

As shown in table 5, Embalam consistently supplied the highest quantity of milk, with an average of 24.44 million liters annually. Poraiyur supply fluctuated, reaching 4.82 million liters in 2021-22, with an average of 4.00 million liters per year. Thanikuppam has the lowest average supply of 0.35 million liters per year, but it has been increasing steadily. Thiruvandarkovil supply declined from 1.13 million liters in 2017-18 to 0.60 million liters in 2021-22, with an annual average of 0.79 million liters.

The union supply data shows that Embalam is the most stable and largest supplier, ensuring consistent contributions. Poraiyur has a moderate growth trend with some fluctuations, while Thanikuppam shows the highest growth rate despite being a smaller supplier. However, Thiruvandarkovil faces a significant decline. Strengthening procurement and addressing supply chain challenges will be key to sustaining overall milk production.

Figure 5: Union Supply

The pie chart represents the union milk supply, with Embalam contributing the largest portion of 1,775,528.87, followed by Poraiyur 1,094,310.32.

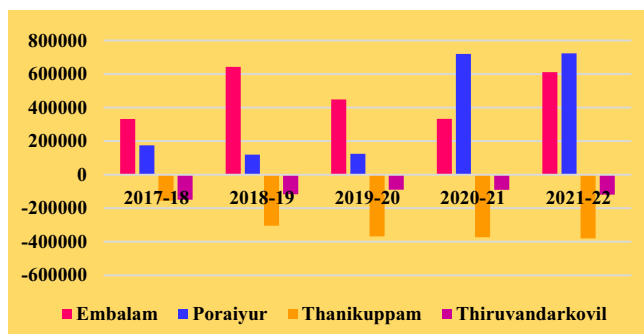
Thanikuppam 68,025.62 and Thiruvandarkovil is 28,951.34 contribute significantly smaller shares.

Table 6: Profit and Loss Details from 2017-18 to 2021-22 (Rs.)

Year	Societies			
	Embalam	Poraiyur	Thanikuppam	Thiruvandarkovil
2017-18	331823	174553	-155676	-149131
2018-19	642451	119151	-304306	-116779
2019-20	448381	124202	-368052	-89915
2020-21	332547	719730	-373342	-90468
2021-22	610967	723314	-380247	-119062
Average	473233.8	372190	-316324.6	-113071
SD	148334.37	319632.32	94822.47	24479.89
CV	0.31	0.86	-0.30	-0.22
CAGR	12.99%	32.89%	19.56%	-4.40%

Table 6 reveals that Embalam has maintained consistent profits, with an average profit of ₹4.73 lakh per year. Poraiyur has shown the highest growth in profitability, with an average annual profit of ₹3.72 lakh. Thanikuppam has been operating at a consistent loss, averaging ₹3.16 lakh loss per year. Thiruvandarkovil has also operated at a consistent loss, with an average loss of ₹1.13 lakh per year.

Figure 6: Profit and Loss



Overall the table illustrates profit and loss figures from 2017-18 to 2021-22. Embalam and Poraiyur consistently reported profits, with significant growth in Poraiyur during the later years. In contrast, Thanikuppam and Thiruvandarkovil faced consistent losses, highlighting financial challenges in these areas.

SWOT Analysis:

Strengths:

The strengths of dairy cooperatives in Puducherry in their ability to create a fair and transparent pricing mechanism for milk procurement, which significantly improves the livelihoods of rural farmers.

Weaknesses:

The operational performance of these cooperatives. Inadequate financial management, such as limited access to working capital, inefficiencies in milk collection, lack of advanced technology adoption and limiting their ability to compete effectively which private players.

Opportunities:

Opportunities for these cooperatives are large, given the growing demand for dairy products and the increasing preference for local and organic produce. By leveraging government schemes and subsidies, cooperatives can expand their operations and invest in infrastructure development. The introduction of value-added products, such as flavored milk, cheese, and yogurt, can open new revenue streams and enhance market competitiveness.

Threats:

The intense competition from private dairy companies, which often operate with greater efficiency and marketing capabilities, fluctuating milk prices and rising production costs add to the financial strain. Addressing these threats requires a strategic approach that balances immediate financial stability with long-term growth.

Suggestion:

- To address the challenges identified, this study suggests the implementation of financial practices, such as regular audits, efficient cost management and improve access to affordable credit.
- Training programs should be conducted to enhance the financial literacy and managerial skills of cooperative members.
- Market strategies should focus on strengthening branding efforts and exploring new market opportunities to increase competitiveness.
- Policy support from the government, in the form of subsidies and grants for infrastructure development.
- Integrating digital platforms for procurement, payment systems and supply chain management can enhance transparency and operational

efficiency, thereby improving the overall financial health of dairy cooperatives.

Conclusion:

The financial sustainability of dairy cooperatives in Puducherry is critical to their continued contribution to rural development. By addressing existing financial and operational challenges, these cooperatives can enhance their resilience and ensure long-term sustainability. Collaboration among stakeholders, including policymakers, cooperative members, is essential for achieving these objectives. This study indicate the importance of a multifaceted approach to sustaining dairy cooperatives and highlights their potential to drive inclusive economic growth in rural communities.

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The Role of Cooperative Education in Capacity Building among Cooperative Societies: A Case Study on Ima Langnubi Dairy Cooperative Society Ltd., Imphal West District, Manipur

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Abstract:

This paper explores the impact of cooperative education on enhancing cooperative societies, using a case study from the Imphal West District in Manipur. The objective of the study is to evaluate the socio-economic profiles of members and how these profiles affect their involvement in educational programs, as well as to pinpoint the challenges and opportunities for advancing educational efforts within these societies. A mixed-methods strategy was utilized, integrating quantitative surveys and qualitative interviews to collect demographic information and gather members' views on cooperative education. The results indicate that individuals with higher educational attainment and stable income levels are more actively involved in educational initiatives, whereas those from lower socio-economic backgrounds encounter obstacles such as financial challenges and restricted access to information. Cooperative societies encounter difficulties such as limited funding, a shortage of qualified trainers, and inadequate outreach. However, they also have opportunities like forming partnerships with educational institutions and NGOs, as well as leveraging technology for remote learning, which can help mitigate these challenges. This research adds to the body of knowledge on cooperative education and offers practical recommendations for policymakers and leaders of cooperatives to create more inclusive and effective educational initiatives.

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Keywords:

Cooperative Education, Cooperative Societies.

1. Introduction:

Concept of cooperative is as old as human beings; it is when people co-exist in an environment in pursuit of common goals. 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” (ILO, 2012). Cooperative societies have become crucial entities in fostering socio-economic growth, especially in rural regions where access to resources and opportunities is frequently scarce. In India, cooperatives significantly contribute to improving livelihoods, promoting community development, and empowering individuals through collective efforts. Nonetheless, the success of these organizations is closely tied to the education and training offered to their members. Educating cooperative members is vital for enhancing their capabilities, providing them with the necessary skills and knowledge to engage in and gain benefits from cooperative initiatives.

Cooperative Education and Training:

Cooperative Education and Training are essential for the growth and sustainability of cooperatives. Cooperative education provides individuals with a foundational understanding of cooperative principles, values, and governance. It emphasizes the importance of democratic control, member participation, and the economic impact of cooperatives in society. On the other hand, cooperative training focuses on developing practical skills and expertise needed to manage and operate cooperatives effectively. It includes hands-on training in areas such as financial management, leadership, legal frameworks, and member relations. Together, cooperative education and training help create a knowledgeable and skilled workforce, ensuring that cooperatives are well-equipped to thrive in a competitive environment while contributing to community development and economic empowerment. In India, cooperative training is often organized by various national and state-level institutions, such as the National Council for Cooperative Training (NCCT), state cooperative training centers, and universities. These programs are designed to enhance the capacity of cooperatives to meet the challenges of modern-day management, improve their efficiency, and promote sustainable growth.

National Council for Cooperative Training (NCCT) :

The National Council for Cooperative Training (NCCT) is a key organization in India dedicated to promoting cooperative education and training. National Council for Cooperative Training is registered autonomous society under the Societies Registration Act, 1860 promoted by Ministry of Cooperation, Government of India. The Council is responsible for organizing, directing, monitoring and evaluating the arrangements for cooperative training for the personnel working in the cooperative sector in the country. The main objective of the Council is to organize need based training programmes and facilitate the process of human resource development for cooperatives for the country. It also envisages conducting research in critical areas of cooperative movement.

The Council has established its own training structure comprising of the VAMNICOM, Pune at National Level, Five Regional Institutes of Cooperative Management at Chandigarh, Bangalore, Kalyani, Gandhinagar, Patna and 14 Institutes of Cooperative Management located at Bhopal, Bhubaneswar, Chennai, Dehradun, Guwahati, Hyderabad, Imphal, Jaipur, Kannur, Lucknow, Madurai, Nagpur, Pune and Thiruvananthapuram.

Profile of the Society:

The Ima Langnubi Dairy Co-operative Society Ltd. Having registration No. 7 of 1991-92 was registered as co-operative society on 3rd October, 1991, under the Manipur Co-operative Act, 1976. The area of operation covered the whole of Thangmeiband, Imphal West District. As per document supplied by the society the total number of member is 93 (Ninety three) as on 31-03-2024. The paid up share capital of the society had increased from 13,74,000/- as on 31-03-2023 to 16,15,530/- as on 31-03-2024. The management of the society was vested in a Board of Directors and Office Bearers consisting of 7 (seven) members which were elected by the Annual General Body Meeting. The main working of the society is to procure milk, feeds, medicines etc. and sell them farmers and consumers. The society also provides thrift and credit facilities to the members.

2. Review of Literature:

Ayyappan, K., & Selvaraj, S. (2021) has attempted a study “Conceptual Perspectives of Cooperative Education and Training on Cooperative Organizations – A Study”. The result of the study found that cooperative education plays a critical role in enhancing various aspects of cooperative

organizations, including customer care and loan collection. The focus on education not only helps in improving financial management but also reduces the incidence of bad debts, thereby contributing to the overall financial health of cooperatives. Furthermore, the continuous revision of educational content is essential to ensure that it remains relevant and effective in addressing the evolving needs of cooperative members. Education fosters a culture of cooperation, responsibility, and loyalty among members, which is vital for the sustainability of cooperative societies.

Chandrashekhar, R. (2012) highlighted that cooperatives play a significant role in employment generation and are instrumental in alleviating poverty, particularly in rural areas. By providing job opportunities, cooperatives contribute to improving the quality of life for individuals and families in these communities. Furthermore, the activities of cooperatives enhance the socio-economic conditions of rural populations, fostering greater economic stability and social cohesion. The vital contributions of cooperatives extend beyond economic factors, as they are also essential for rural development and infrastructure improvement, supporting sustainable growth in these regions. Overall, the impact of cooperatives on rural communities underscores their importance as a mechanism for driving development and improving living standards.

According to **Emejulu et al. (2019)**, capacity building is essential for improving organizational effectiveness and ensuring the sustainability of cooperative enterprises. The historical context of cooperation emphasizes its role in strengthening community goals and objectives, illustrating how cooperatives serve as vehicles for collective action. Furthermore, effective capacity building requires a holistic approach and a systems perspective, which considers the interdependencies among various elements within cooperative organizations. This comprehensive approach is crucial for fostering resilience and adaptability, enabling cooperatives to navigate challenges and leverage opportunities in an increasingly complex environment.

Egia & Etxeberria (2019) found that education centered on these cooperative values enhances member commitment and overall effectiveness, leading to improved organizational performance. The Mondragon experience serves as a prominent example of successful implementation of cooperative values, showcasing how adherence to these principles can lead to sustainable success. Furthermore, training in cooperative principles is essential for modern

cooperatives to navigate the complexities of contemporary economic environments. As the landscape of cooperatives evolves, new values are emerging alongside traditional cooperative values, necessitating a dynamic approach to education and training in this sector.

Virendra, K., Wankhede, H. C., & Gena, K. (2015) has studied on “Role of cooperatives in improving livelihood of farmers on a sustainable basis”. They found that cooperatives play a vital role in enhancing sustainable livelihoods for farmers in India by significantly improving agricultural productivity and income. Successful cooperatives contribute to the agricultural sector by implementing improved agronomic practices, leading to better crop production. Capacity building is crucial for managing common resources sustainably, ensuring that cooperative members are equipped to mobilize their collective efforts for organized livelihood support. This organized approach enhances resource management and empowers members to leverage successful cooperative models, which can be replicated in other developing countries facing similar agricultural challenges.

3. **Objectives of the Study:**

1. To evaluate the socio-economic characteristics of members of cooperative societies in the Imphal West District.
2. To identify the main challenges encountered by members of these cooperative societies.
3. To explore the opportunities perceived by cooperative members for growth and enhancement.

4. **Methodology of the Study:**

The research adopts a descriptive research design, which is well-suited for understanding and analyzing the socio-economic characteristics, challenges, and opportunities of cooperative members. A simple random sampling technique is used to select 30 members from the cooperative society. This sample size is chosen to ensure that the members are adequately represented, and the findings are reflective of the broader population of cooperative members. The study gathers both primary and secondary data. For primary data, structured interviews and questionnaires are developed based on the research objectives, focusing on socio-economic characteristics, challenges faced by members, and the perceived opportunities for growth. Secondary data is collected from the cooperative's records, such as member lists, participation in educational programs, and reports on the society's activities.

For data analysis, descriptive statistics are used, including frequency distributions, percentages, and averages, to summarize the socio-economic characteristics of the members. Statistical tool such as SPSS (Statistical Package for the Social Sciences) is employed to analyze the data from the structured questionnaires. This method provides a comprehensive understanding of the role of cooperative education in capacity building among cooperative members in the selected case study.

5. Data Analysis & Interpretation:

Table1: Distribution of Members by Age Group and Gender

Gender	Age					
	18-25	26-35	36-45	46-55	56 and above	Total
Male	5	4	2	7	9	27
Female	0	0	0	3	0	3
Total	5	4	2	10	9	30

The table presents the distribution of cooperative members by age group and gender, showing a total of 30 members, of which 27 are male and 3 are female. The majority of members fall into the older age groups, with 7 males in the 46-55 age group and 9 males in the 56 and above category. Males dominate every age group, while females are only represented in the 46-55 age group, with 3 female members. There is no representation of females in the younger age brackets (18-25 and 26-35), indicating a predominantly male, middle-aged to older demographic in the cooperative society.

Table 2: Category wise Distribution of Members by Gender

Gender	Category				
	General	OBC	SC	ST	Total
Male	11	14	0	2	27
Female	0	3	0	0	3
Total	11	17	0	2	30

The table illustrates the category-wise distribution of cooperative members by gender, with a total of 30 members, consisting of 27 males and 3 females. Among the male members, 11 belong to the General category, 14 to the OBC category, and 2 to the ST category, while there are no male members in the SC category. The 3 female members are all in the OBC category, with no female members in the General, SC, or ST categories. The distribution highlights that the cooperative is primarily composed of male members, with a significant portion from the OBC category.

Table 3: Distribution of Member by Marital Status

Gender	Marital Status				
	Single	Married	Divorced	Widowed	Total
Male	6	19	0	2	27
Female	0	3	0	0	3
Total	6	22	0	2	30

The table shows the distribution of cooperative members by marital status and gender, with a total of 30 members, consisting of 27 males and 3 females. Among the male members, 6 are single, 19 are married, and 2 are widowed, with no male members divorced. All 3 female members are married, and there are no female members who are single, divorced, or widowed. The data indicates that the majority of members, especially males, are married, with a small proportion being single or widowed.

Table 4: Distribution of Member by Educational Level

Gender	Educational Level						
	No Formal Education	Primary School	Secondary School	Higher Secondary School	Graduate	Postgraduate	Total
Male	1	0	6	8	11	1	27
Female	0	0	1	0	1	1	3
Total	1	0	7	8	12	2	30

The table presents the distribution of cooperative members by educational level and gender, with a total of 30 members: 27 males and 3 females. Among

the male members, 1 has no formal education, 6 have completed secondary school, 8 have completed higher secondary school, 11 are graduates, and 1 has a postgraduate degree. Among the female members, 1 has completed secondary school, 1 is a graduate, and 1 has a postgraduate degree, with no females having primary school education or higher secondary school qualifications. This distribution highlights that the majority of male members have completed higher secondary school or higher, with a smaller proportion of female members attaining graduate or postgraduate education.

Table 5: Distribution of Member by Occupation

	Occupation						
Gender	Farmer	Trader	Service Provider	Student	Unemployed	Employed	Total
Male	23	0	0	3	0	1	27
Female	3	0	0	0	0	0	3
Total	26	0	0	3	0	1	30

The table shows the distribution of cooperative members by occupation and gender, with a total of 30 members: 27 males and 3 females. Among the male members, the majorities (23) are farmers, 3 are students, and 1 is employed, while there are no male members involved in trading, service provision, or unemployment. Among the female members, 3 are farmers, and there are no female members in other occupational categories. This distribution indicates that farming is the dominant occupation among both male and female members, with only a small proportion of male members being employed or students.

Table 6: Distribution of Member by Monthly Income

	Monthly Income						
Gender	Below Rs10,000	Rs10,001- Rs20,000	Rs20,001- Rs30,000	Rs30,001- 40,000	Rs40,001- Rs50,000	Above Rs50,000	Total
Male	0	7	6	4	4	6	27
Female	0	1	1	1	0	0	3
Total	0	8	7	5	4	6	30

The table shows the distribution of cooperative members by monthly income and gender, with a total of 30 members: 27 males and 3 females. Among the male members, the income distribution is as follows: 7 members earn between Rs 10,001 and Rs 20,000, 6 earn between Rs 20,001 and Rs 30,000, 4 earn

between Rs 30,001 and Rs 40,000, 4 earn between Rs 40,001 and Rs 50,000, and 6 earn above Rs 50,000. For the female members, 1 earns between Rs 10,001 and Rs 20,000, 1 earns between Rs 20,001 and Rs 30,000, and 1 earns between Rs 30,001 and Rs 40,000. No female members earn below Rs 10,000 or above Rs 50,000. This distribution highlights that male members have a broader range of income levels, with the highest proportion falling within the Rs 10,001 to Rs 20,000 and above Rs 50,000 income brackets, while female members generally have lower monthly incomes compared to their male counterparts.

Table 7: Distribution of Member by Participation in Capacity Building Programs

	Participation in Capacity Building Programs		
Gender	Yes	No	Total
Male	18	9	27
Female	3	0	3
Total	21	9	30

The table shows the distribution of cooperative members by their participation in capacity building programs and gender, with a total of 30 members: 27 males and 3 females. Among the male members, 18 have participated in capacity building programs, while 9 have not. All 3 female members have participated in these programs. This distribution indicates that a significant majority of male members (66.7%) have participated in capacity building programs, while all female members have engaged in these programs, highlighting a strong involvement in such programs among both genders, especially females who are fully participating.

Table 8: Distribution of Members' Frequency regarding their Participation in Capacity Building Programs

	Frequency of Participation in Capacity Building Programs			
Gender	Frequently	Occasionally	Rarely	Never
Male	4	6	9	8
Female	0	0	3	0
Total	4	6	12	8

The table shows the frequency of participation in capacity building programs by gender, with a total of 30 members: 27 males and 3 females. Among the male members, 4 participate frequently, 6 participate occasionally, 9 participate rarely, and 8 never participate in capacity building programs. For female members, all 3 participate rarely. This distribution highlights that most male members (15 out of 27) participate in capacity building programs with varying frequencies, with the majority participating rarely. Female participation is limited, with all 3 female members engaging rarely, and no female members actively participate frequently or occasionally.

Table 9: Distribution of Members' Preferred Method of Learning

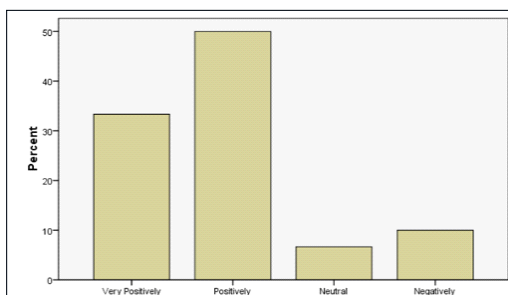
Gender	In-Person Workshops	Group Discussions	Total
Male	20	7	27
Female	1	2	3
Total	21	9	30

The table shows the distribution of cooperative members' participation in capacity building activities, specifically in in-person workshops and group discussions, by gender, with a total of 30 members: 27 males and 3 females. Among the male members, 20 have participated in in-person workshops, while 7 have participated in group discussions. For female members, 1 has attended in-person workshops, and 2 have participated in group discussions. This distribution highlights that in-person workshops are the most popular form of participation, particularly among males, with a much lower level of engagement in group discussions. Female participation is minimal, with only a small number engaging in either activity.

Table10 : Members Opinion regarding Education Level and its influences on the Participation in Cooperative Capacity Building Programs

	Frequency	Percent
Very Positively	10	33.3
Positively	15	50.0
Neutral	2	6.7
Negatively	3	10.0
Total	30	100.0

Figure 2 : Members Opinion regarding Education Level and its influences on the Participation in Cooperative Capacity Building Programs



The table and the figure above shows the distribution of members' preferred method of learning in relation to how their education level influences their participation in cooperative capacity building programs, with a total of 30 members. According to the data, 10 members (33.3%) feel that their education level influences their participation very positively, while 15 members (50.0%) believe it influences their participation positively. A smaller group of 2 members (6.7%) feel neutral about the impact of their education level on participation, and 3 members (10.0%) believe it affects their participation negatively. This distribution indicates that the majority of members perceive their education level as having a positive effect on their involvement in capacity building programs, with most seeing it as a positive influence and a significant portion viewing it as very positive.

Table11 : Distribution of Members' Opinion Regarding Income Level Affecting Participation

Gender	Yes	No	Total
Male	6	21	27
Female	0	3	3
Total	6	24	30

The table shows the distribution of cooperative members' perceptions of whether their income level affects their participation in capacity building programs, categorized by gender, with a total of 30 members: 27 males and 3 females. Among the male members, 6 believe that their income level affects their participation, while 21 do not. For female members, none feel that their income level impacts their participation, while 3 do not perceive any effect. This distribution indicates that a small proportion of male members (22.2%)

feel that income influences their participation, whereas the majority of male members, as well as all female members, do not believe income has an effect on their involvement in capacity building programs.

Table 12: Barriers that Limit Members Participation in Capacity Building Programs

Barriers Frequencies				
Barriers that Limit the Participation		Responses		Percent of Cases
		N	Percent	
	Financial Constraints	3	8.8%	10.0%
	Time Constraints	19	55.9%	63.3%
	Lack of Awareness	12	35.3%	40.0%
Total		34	100.0%	113.3%

The table presents the barriers that limit cooperative members' participation in capacity building programs, with a total of 34 responses, indicating that multiple barriers could be identified by each participant. The most common barrier is time constraints, which 19 members (55.9%) reported, accounting for 63.3% of the responses. This is followed by lack of awareness, identified by 12 members (35.3%), making up 40.0% of the responses. Financial constraints were mentioned by 3 members (8.8%), representing 10.0% of the cases. The total percentage exceeds 100% because members could respond more than one barrier, highlighting that time constraints are the primary challenge to participation, while lack of awareness and financial issues are also significant but less prevalent barriers.

Table 13: Opportunities For Improving the Capacity Building Programs

Opportunities Frequencies				
		Responses		Percent of Cases
		N	Percent	
Opportunities for Improving Capacity Building Program	Partnerships with Local Educational Institutions	18	42.9%	60.0%
	Use of Technology for Online Training	2	4.8%	6.7%
	More Outreach and Awareness Campaigns	15	35.7%	50.0%
	Improved Fundings Sources	7	16.7%	23.3%
Total		42	100.0%	140.0%

The table presents the opportunities for improving capacity building programs (CBP) based on cooperative members' responses, with a total of 42 responses, indicating that members provided multiple suggestions. The most frequently mentioned opportunity is partnerships with local educational institutions, cited by 18 members (42.9%), making up 60.0% of the cases. This is followed by more outreach and awareness campaigns, which 15 members (35.7%) identified, representing 50.0% of the responses. Improved funding sources was mentioned by 7 members (16.7%), accounting for 23.3% of the cases, and use of technology for online training was suggested by 2 members (4.8%), making up 6.7% of the responses. The total percentage exceeds 100% because respondents could provide more than one opportunity. These findings suggest that cooperative members see partnerships with educational institutions and outreach campaigns as the most significant opportunities for improving capacity building programs, while technology and funding improvements are less emphasized.

Table 14: Distribution of Members Training Needs for Capacity Building Programs

Training Needs Frequencies				
		Responses		Percent of Cases
		N	Percent	
Training Needs for Capacity Building Program	Leadership Development	13	28.3%	43.3%
	Business Management and Planning	14	30.4%	46.7%
	Financial Management and Accounting	12	26.1%	40.0%
	Marketing and Sales	7	15.2%	23.3%
Total		46	100.0%	153.3%

The table outlines the training needs for capacity building programs (CBP) based on the responses of cooperative members, with a total of 46 responses, as multiple training needs could be identified by each participant. The most frequently mentioned training need is business management and planning, which was identified by 14 members (30.4%), accounting for 46.7% of the responses. This is followed by leadership development, mentioned by 13 members (28.3%), making up 43.3% of the cases. Financial management and

accounting was cited by 12 members (26.1%), representing 40.0% of the responses, while marketing and sales was highlighted by 7 members (15.2%), and accounting for 23.3% of the cases. The total percentage exceeds 100% because respondents could suggest multiple training needs. These findings indicate that business management and planning, along with leadership development, are seen as the most important training needs, while marketing and sales are considered less critical by the members.

6. Summary of Findings :

- The cooperative is predominantly male (27 males, 3 females), with most members in older age groups and no females in younger categories. Male members are mainly from the General and OBC categories, while all female members belong to the OBC category. The majority of both male and female members are married.
- Most male members have higher secondary or higher education, while female members have lower educational attainment. Farming is the dominant occupation, with a small number of males in other categories like student or employed.
- **Monthly Income:** Male members have a broader range of income, with higher earnings compared to female members.
- **Participation in Capacity Building Programs:** A majority of male members (66.7%) have participated in capacity building programs, while all 3 female members have participated.
- **Frequency of Participation:** Most male members (15 out of 27) participate with varying frequencies, but the majority participates rarely; female members all participate rarely.
- **Mode of Participation:** In-person workshops are the most popular form of participation, particularly among males, with limited engagement in group discussions; female participation is minimal.
- **Impact of Education Level on Participation:** The majority of members (83.3%) perceive their education level as positively influencing their participation, with 33.3% viewing it as very positive.
- **Income Level and Participation:** Only a small percentage (22.2%) of male members feels that their income affects their participation, and no female members report this impact.

- **Barriers to Participation:** Time constraints are the most commonly cited barrier (63.3%), followed by lack of awareness (40%), and financial constraints (10%).
- **Opportunities for Improvement:** Key opportunities for improving capacity building programs include partnerships with local educational institutions (60%) and more outreach and awareness campaigns (50%).
- **Training Needs:** Business management and planning (46.7%) and leadership development (43.3%) are the top training needs, followed by financial management and accounting (40%) and marketing and sales (23.3%).

7. **Conclusion & Recommendations:**

Conclusion:

The findings indicate that the Ima Langnubi Dairy Cooperative Society Ltd. is largely composed of male members, with a small number of females. Most members belong to older age groups. Males typically possess higher levels of education compared to their female counterparts, who generally have lower educational credentials. Farming serves as the main source of livelihood, and there is a notable disparity in income, with men earning more than women. Male members show high participation in capacity-building programs, and while all female members are involved as well, their participation is less frequent. The main obstacle to engagement is time limitations, along with issues such as lack of awareness and financial barriers. Members identify collaborations with local educational institutions and outreach initiatives as vital for enhancing capacity-building programs. The most pressing training needs highlighted are in business management and planning, along with leadership skills and financial management.

Recommendations:

The following recommendations are drawn from the study: -

- **Increase Female Participation:** The cooperative should prioritize increasing female membership by promoting their participation in training and skill development programs, possibly by creating initiatives that cater to their unique needs and by addressing societal or logistical challenges.
- **Targeted Capacity Building Programs:** Given the high demand for business management, leadership development, and financial management training, the cooperative should design more specific training programs in these areas to help members develop essential skills for growth.

- **Address Time Constraints:** The cooperative should consider offering flexible schedules or online training options to address the time constraints faced by many members, particularly for those with farming responsibilities.
- **Enhance Awareness:** More outreach campaigns and awareness initiatives should be undertaken to ensure all members, especially those from underrepresented groups, are fully aware of the opportunities available through the cooperative's programs.
- **Collaborate with Educational Institutions:** Forming partnerships with local educational institutions could help improve the quality and reach of the capacity building programs, benefiting both current members and potential new members.
- **Financial Support:** Exploring new sources of funding for the cooperative's activities could help reduce the financial constraints that limit members' participation and enhance the overall effectiveness of the capacity building programs.

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The Cluster and Six Sigma Approach for Cooperative Sugar Factories

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Abstract:

The cooperative sugar factories are the backbone of rural development of Maharashtra and especially Kolhapur district which is required for Aatma Nirbhar Bharat. This research paper has highlights the importance of cluster and six sigma approach in sample cooperative sugar factories in Kolhapur district. Human resource is one of the most vital assets in sugar factories, where clustering and sigma standardization is possible. They are the people who make other resources moving like HR, finance, production and marketing, they perform various activities in different functional areas where inter and intra clustering and standardization is essential. Cluster approach is the process of networking and clustering various activities for the competitiveness, growth, technological dynamism and maximization of the efficiency of participating organizations. It is the collaboration among similar nature organizations where collective efforts have taken for cost reduction, research, market support, inventory management, innovation, problem solving etc. The cluster and six sigma approach provides positive environment to the member organizations. The cooperative sugar factories have been playing very significant role for the development of rural area, where cluster and six sigma approach will add the feather in the cap of cooperative sugar. The economy of Western Maharashtra and its vicinity is highly dominated by sugar factories situated in this area. The role of cluster and six sigma is significant in MSMEs. likewise in cooperative sugar factories also. The research has tried his level best to thrown light on cluster and six sigma approach and cooperative sugar factories. This study is based on observation of Satara, Sangli, Kolhapur and Belgaum districts based cooperative sugar factories of Maharashtra and Karnataka states. The researcher has analyzed 16 parameters for measuring the performance of

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cooperative sugar factories in Kolhapur district where Cluster and Six Sigma application is essential for leadership standard, management strategy, and management responsibility are at 100 percent (Six Sigma Level) performance level. Thus, of the sixteen parameters, THREE are at 6 sigma level, EIGHT at about 2nd sigma level, TWO at less than 1st sigma level and THREE at '0' sigma level. Considering these sigma levels in the performance of cooperative sugar factories, considerable improvements are required, which is possible through Cluster and Six Sigma approach.

Key Words:

Cluster, Sugar Industry, Rural Development, Positive Environment, Six Sigma.

1. Introduction:

Sugar industry is the second largest industry after the textile industry in India. It is playing a very prominent role for the development of Indian economy especially in rural area. It is believed that India is the original home of sugarcane. Now a day sugar production and consumption is expanded dramatically, so numbers of people are getting employment opportunities directly and indirectly from this sector. The most outstanding feature of this industry is its vital link between the sugar factory and the cultivators who are inter-dependent. Sugar industry is labour intrinsic industry where cost of manpower is more and as a cost center plays very dominant role in cost of production of sugar, which shows positive partial correlation. This indicates that as the TCD increases manpower requirement and other facilities requirements are increases where clustering and coordination is required. It is observed that effective utilization all resources within the factory and other factories is the present need of cooperative sugar factories. This industry requires skilled, knowledgeable and experienced manpower with optimum utilization of resources. In changing technical environment, minimization of expenses and losses and maximization of utilization of all resources is required which is possible through cluster and six sigma approach. As the minimum and maximum resources are predetermined, but optimum utilization and inventory management is yet to be moderated. To increase productivity of the sugar factories and better utilization of all resources, the researcher has suggested to use cluster and six sigma approach in cooperative sugar factories in present scenario. As per expert's committee four man-days per quintal of sugar production is designed as standard manpower utilization,

5-7 cr standby inventory for repairs and maintenance of the sugar factory. The researcher has found about 36% excessive manpower and 100% excessive inventory has found in cooperative sugar factories. The researcher has suggested that Enterprise Resource Planning (ERP) can be established through cluster and six sigma approach for maximization of efficiency. The cooperative sugar factories should maintain the important spear parts, planning, purchasing, maintaining inventories, interacting with suppliers, sugar sales, tendering, customer service, harvesting and transport, etc which can be incorporated in cluster and can be established sigma standard. The development and use of cluster in cooperative sugar factories is a modern phenomenon concerned with productivity and cost effectiveness that will lead to a better planning, better decision making and better results. Cluster and six sigma system is highly integrated, complex systems for businesses, and MSME businesses are running them successfully worldwide, which can be implemented in cooperative sugar factories. Cluster for cooperative sugar factories will help for e-recruitment, e-tendering, e-stock management, e-knowledge management, e-employee development and e-skill development, e-storage, e-stock maintenance etc are possible through cluster in cooperative sugar factories. Agriculture is a basic economic activity in India. Agro processing industries such as SUGAR INDUSTRY, bridge rural and urban economy i.e Cooperative Business Model for Resilience and Sustainability. India is one of the major sugar producing countries in the world. Maharashtra is a major sugar producing state in India. Kolhapur is one of the districts in Maharashtra. The researcher has critically studied the 'Co-operative Sugar Factories at Six Sigma Level' of the sample sugar factories in Kolhapur district. At present cost overruns, low levels of productivity, lack of financial discipline, accumulated stocks of sugar, negligence towards by-products etc. are the main challenges before the co-operative sugar factories. Considering these aspects the researcher has studied the Kolhapur district based co-operative sugar factories. Six sigma is the statistical concept that measures the performance in terms of perfection and defects. Six sigma is also a philosophy of managing defects through practices that emphasize understanding, measuring and improving processes for achieving Six Sigma Level in cooperative sugar factories.

2. Significance of the Study:

The cluster and six sigma approach plays a very important role in an economy. It helps to eradicate rural poverty, rural income generation and regional

economic development through cooperative sugar factories. Therefore, Government of India introduced cluster approach, due to success story in worldwide. Therefore, it is noted that this study shown that cluster and six sigma approach has positive contribution to their regional entrepreneurship development through cluster networking. Kolhapur district based selected cooperative sugar factories should use the cluster and six sigma approach for overall development which will bring new approach in cooperative sugar factories in the district. In this study researcher tried to highlight the role of cluster and six sigma approach to build up strong cooperative sugar factory networking which lead to productivity and efficiency. Cluster and six sigma approach is very important for sugar factory efficiency. Therefore, the research has decided to write on cluster and six sigma approach in cooperative sugar factories in sample area for sustainable development.

3. Objectives:

- a. To know the present status of cooperative sugar factories in sample area.
- b. To know the relevance and application of cluster and six sigma approach in sample cooperative sugar factories.

4. Research Methodology:

The total number of cooperative sugar factories in Maharashtra is 121 which are working and 221 were registered. Researcher has considered cooperative sugar factories in the Kolhapur district. Researcher has focused on functions and services of cooperative sugar factories and application of cluster and six sigma approach in these cooperative sugar factories. The Researcher has used stratified purposive sampling method for data collection and Researcher has used dummy names for not to disclose names of the sample sugar factories. So it is named as A, B, C, D and E cooperative sugar factories hereafter. The cooperative sugar factories human resource, inventory, research, production, tissue culture, harvesting, transport, marketing etc can be considered for better performance and cluster support. The Researcher has collected data by way of questionnaire and sugar factory reports and presented in this paper only Mean, S.D., C.V., Percentage etc outcome instead of giving full length of the data. This research has proved that the requirement of cluster and six sigma approach in cooperative sugar factories.

5. **Data Analysis And Interpretation:****Table No. 1-a: Managerial Level: General Questions to Staff**

Sr. No.	Particulars	Cooperative Sugar		
		SD	MEAN	CV
1	Responsibility of Planning	13	64	20
2	Staff grievance procedure	20	48	41
3	Major causes of Absenteeism	15	34	45
4	Steps taken to enhance productivity	4	62	6

Table No. 1-b: Managerial Level: Satisfaction level of Staff

Sr. No.	Particulars	Responses from the Staff					Total %
		1	2	3	4	5	
1.	Provision of Salary and Allowances.	56	17	8	15	4	100
2.	Recreational facilities.	10	16	22	26	26	100
3.	Regular departmental Meetings	0	4	10	14	72	100
4.	Expert counseling for addiction faces life.	0	14	20	15	68	100
5.	Expert counseling against job stress and tensions	0	0	12	44	44	100
6.	Facilities of employee credit Cooperative Society	0	1	14	23	62	100
7.	Adequate Canteen facility	0	3	6	21	70	100
8.	Provision of housing Facilities	3	6	10	15	66	100
9.	Facilities of medical care for dependents.	1	16	13	18	52	100

Source: Primary Data

1 = Highly dissatisfied, 2 = Dissatisfied, 3 = Neither dissatisfied or satisfied, 4 = Satisfied, 5 = Highly satisfied.

With the above reference that there is no provision of separate planning department in cooperative sugar factories. The responsibility of planning automatically goes to other departments and it reduces the work efficiency due

to interference excess managerial level staff. Further, the calculated Coefficient of Variance (CV) for responsibility of planning shows that there is less responsibility in cooperative sugar factories. Staff grievances are an ongoing process in the factory but it is very important how the superior staff can handle the grievances. Majority feels that grievance handling procedure should be supportive and rule bound. In cooperative sugar factories is not adequate procedure of performance evaluation mechanism i.e., intra departmental committee and departmental head subcommittee are less performing. The absenteeism rate in cooperative sector is more. The usual absenteeism rate in cooperative sugar factories are more because the HR practices used in cooperative sugar for controlling the absenteeism rate are properly not utilized e.g. no constant planning of shift working, internal adjustments for casual leave etc. There is lack of proper utilization of HR practices regarding reduction in usual absenteeism rate in cooperative sector. The canteen, housing, medical care and educational assistance for dependence facilities are not sound and adequate in the cooperative sugar factories. Its main reason is the profitability and attitudes of management towards their staff. Sugar factories should start cluster approach for manpower planning and utilization. It will help to improve decision making process of the managerial level staff. It is suggested to cooperative sugar factories that they should maintain proper combinations of supportive and rule bound procedure to handle staff grievances in the factories, for handling clusters can be established. On the basis of CV it is suggested to the cooperative sugar factories that they should try to minimize the time required to settle the staff grievance. They should adopt the policy of organizing such type of programmes like personality development programmes, workshop, seminars etc., which will be useful to create the feeling of integrity, better coordination, social approach, humanity, etc., in the minds of employees, which is possible through cluster. It will help to reduce the staff grievances because everyone will develop and work properly. The cluster members should adopt the policies of regular or day to day discussions among inter and intra cluster departmental heads to enhance the departmental productivity. Problems or disputes among the staffs are one of the major reasons to reduce the productivity. It means to enhance the departmental productivity there should be regular discussions with staff by the departmental heads, it will help to reduce the problems of the employees. It is suggested that one can use the performance appraisal measurement model which has developed by the researcher in the cluster of cooperative sugar factories.

Table No. 2: Below Managerial Level

Sr. No.	Particulars	Permanent Staff			Seasonal Staff		
		SD	MEAN	CV	SD	MEAN	CV
1	HR Planning process.	17	107	16	18	93	19
2	Bases for manpower selection	14	170	9	15	148	10
3	Conduction of T & D.	60	110	55	9	90	10
4	Promotion policy adopted in the factory.	4	130	3	44	93	47

Source: Primary data

The above table 2 showing few HR practices of below managerial level staff of selected sugar factories. The calculated Coefficient of variations (CVs) are showing the performance of HR practices. It is clear that the CV of cooperative sector is less because HR practices in cooperative sector is not adequate. This table show the various provisions provided by the cooperative sugar factories to their below managerial level staff. On the basis of percentage criteria, it is clear that cooperative sector is not proving better facilities to their staff. The calculated CV of cooperative sugar factories shows higher percentage. It means the interpreted information through calculation of CV indicates that the cooperative sugar factory respondents are less aware about HR planning process. The bases for manpower selection process include educational qualifications, experience, skill and physical fitness. The employees are of three categories i.e., skilled, semi-skilled and non-skilled. The skilled and semi-skilled employees require the entire basis, while non-skilled requires the experience and physical fitness. The variety and skillful practices of manpower selection process are not used in cooperative sugar factory. The lower CV about awareness of Training and Development programmes shows adequacy in cooperative sugar factories. Its main reason is the awareness of management and its attitude towards the respondents about to create such awareness among the respondents. The permanent and seasonal respondents must have proper awareness about Training and Development programmes. It is suggested that to formulate cluster for settling grievances, training, development of the employees through cluster approach. The sugar factories most of the respondents are indirectly used for the BOD election purpose, so the volume of grievance created through election activities are much more in cooperative sugar. The opinions of subordinates in managerial level staffs is in

adequate in cooperative sugar factories, it means the HR practices are ineffective in cooperative sugar factories, where cluster is useful. The satisfaction level is tested through the various questions based on provision of salary and wages, incentives, regular facilities, additional facilities, service of counseling, precautionary measures, and feedback system. It is less adequate in cooperative sugar factories. Cooperative sugar factories should organize overall staff meetings for exposure of future plans so as to serve the basic objective of cooperative, which is possible through cluster. The researcher has suggested to all cooperative sugar factories that to establish 'employee bank' for which appoint professionally qualified employee as a MD, Manager, Chief Chemist, Works Manager, Labour Officer, Purchaser Manager and employees in the cooperative sugar factories. It is observed that qualified person having sense of belongingness of the factory. Qualified managers if not available then need based effective training programmes should be organized through cluster for the benefit of all member sugar factories. It is also suggested that the cooperative sugar federation should develop employee and managers training modules with qualified group of people. It is suggested to cooperative sugar factories that to use of various methods of recruitment, which is possible through cluster in cooperative sugar factories.

3. **Cluster for minimization of problems in Cooperative Sugar:**

It has studied by the researcher that; in co-operative sugar factories systematic planning were not found. There is always shortage of working capital. There is lack of plantation and harvesting planning of sugar cane. There is no good sugar marketing planning. Same things are found in other areas too. Lack of good production management, sugar production management is about 90 to 120 days per year, quality of the sugar is changing, less export market, political interference, limitations in material handling, excessive investment in inventory of machinery and equipments, lack of professional management, lack of good productivity, excessive government restrictions, lack of marketing techniques, lack of financial self-sufficiency, etc. which leads to inefficiency. To minimize lacunas and inefficiencies the researcher has suggested cluster approach in cooperative sugar factories in Kolhapur district. It is suggested that cluster in cooperative sugar factories will solve cane plantation, harvesting, transport, quality control, inventory management etc issues commonly. It is recommended that cluster approach will help to minimize the issues in cooperative sugar factories. Today's world is competitive world, where helping, supporting and joining hands are required, which will be available in cluster approach.

4 **Sugar Marketing Through Cluster Approach:**

The cooperative sugar factories are using tender method for selling the sugar and other by products. It is ok. It was observed and studied that in co-operative sugar factory, cost of sugar production is higher. At each and every work center or cost center; cost overrun is found. Ultimately the cost of production of sugar is at higher side. It was found that the cost awareness was not found in these co-operative sugar factories. More wastages, abuse use of resources, short margin, excessive operative expenses, political pricing of sugar cane, traditional marketing method, sugar bags are in 50 kgs and 100 kgs only, no modern marketing strategies, no 4Ps-7Ps-9Ps etc. which are affecting on marketing of the sugar and its by-products. It is suggested that for sugar and byproducts marketing, cluster approach may be useful. Cluster approach will help for attracting Indian and International customers for sugar and one can do the attractive packing and branding. One unit cannot do various marketing activities, so nearby sugar factories may come together and for the cluster for marketing the sugar and allied sugar cane products. Sugar marketing cluster may do good advertisement, may appoint brand ambassador etc, which will help to cooperative sugar factories to attract the wide range of direct and indirect customers.

5. **Planning through Cluster:**

It was studied by the researcher that; in co-operative sugar factories systematic planning were not found. There always required planning for working capital, planning for H & T, HR planning, finance planning, production planning and inventory planning etc. These all planning is possible through cluster. Nearby cooperative sugar factories should come together and get it prepared these all plans with gregarious discussion with nearby cooperative sugar factories, which will help to avoid inter competition among nearby cooperative sugar factories. The co-operative sugar factories can able to manage sugar production effectively. Now a day the co-operative sugar factories are running only about 90-120 days per year. Similarly co-operative sugar factories have been producing Large (L), Medium (M), and Small (S) grade sugar. They is less sugar production which has an export quality. Inverted sugar, cubes, different shape sugar, gift packs, dip-dip sugar, 5 grams to 5 kgs packs etc. may be produced through cluster approach. Considering the present scenario it is very difficult to run any co-operative sugar factory on professional basis. The co-operative sugar factories have to take permission from the government for purchasing of material, machinery purchase, sale of sugar, loan policy etc. It was observed that everywhere Government permission is required for co-

operative sugar factories and it leads to delay in decisions, where cluster approach will minimize this problem.

6. **Lack of professional management:**

Co-operative sugar factories are the rural based process industries which have been working for Aatma Nirbhar Bharat. The local resources and local manpower have been utilized in these co-operative sugar factories. Due to this practice, it was found that there is no professional approach in all functional areas of the factory. In co-operative factories strategic management and professional management has not used efficiently. Majority of the co-operative sugar factories are using traditional approaches at present where lack of professional management approach. It is suggested that the nearby cooperative sugar factories should come together for establishing and getting professional expertise through the group of cooperative sugar factories. In present competitive scenario, survival is the fittest, to survive, the group of cooperative sugar factories should appoint qualified, experiences, knowledgeable, useful, performer experts and get it done the professional management of the cooperative sugar factories. The professional management should be performance based and result oriented, which is possible through cluster approach. Sugar cooperative is a typical industry, where production and service, both are dominant, where cluster approach is suggestible.

7. **Cluster for Activity Based Costing:**

Sugar industry is the process industry where Activity Based Costing (ABC) is very much essential for measuring the performance and effective utilization of available resources. Minimization of production cost and maximization of productivity is required in cooperative sugar factories, where ABC is useful for cooperative sugar factories. The ABC is more suitable when there is a group of cooperative sugar factories i.e. cluster of cooperative sugar factories. The proper choice of costing and calculation of accurate product cost in processing industries have been widely discussed by academics and practitioners, which is possible through cluster. At present the cooperative sugar factories have been facing the problems of qualitative raw material, sufficient raw material, harvesters, transporters, cost of transport, skilled manpower, pricing, cost, performance, government policies etc. To solve the sugar factory cost related problems can be solved through cluster based ABC. The concept of Activity-Based Costing has been considered a sophisticated method of cost calculation since the early 1980s. The Activity-Based Costing method was designed as a solution to overcome the problems in the traditional costing methods. This research paper has no ambitions to judge the concept of

ABC but to apply in cooperative sugar factories and it is possible through cluster approach. It was observed and studied that in co-operative sugar factory, cost of sugar production is higher. At each and every work center or cost center; cost overrun is found. Ultimately the cost of production of sugar is at higher side. It was found that the cost awareness was not found in these sample co-operative sugar factories. More wastages, abuse use of resources, short margin, excessive operative expenses, sugar cane pricing, traditional marketing method, sugar bags are in 50 kgs and 100 kgs only, no modern marketing strategies, no 4Ps-7Ps - 9Ps etc. which are affecting on marketing of the sugar and its by-products. These marketing related problems can be minimized through the cluster approach in cooperative sugar factories.

8. Six Sigma Level for Co-operative Sugar Factories:

Sr. No.	Particulars	Responses	Six Sigma Level
1	Leadership standard	100%	Six Sigma Level
2	Work culture of employees	50%	1 st Sigma Level (Very Poor)
3	Managerial decisions on merit and quick basis - Yes	75%	About 2 nd Sigma Level (Poor)
4	Social responsibilities followed	75%	About 2 nd Sigma Level (Poor)
5	Cost of production of sugar - Average	75%	About 2 nd Sigma Level (Poor)
6	Management strategy - Yes good	100%	Six Sigma Level
7	Awareness of intellectual property - No	100%	Zero Level (Very - Very Poor)
8	Level of standard H.R. Policy	75%	About 2 nd Sigma Level (Poor)
9	Awareness of present sugar market trend – some what aware	75%	About 2 nd Sigma Level (Poor)
10	Responsibility of management for performance of co-operative sugar factories	100%	Six Sigma Level
11	Are you getting good selling price for sugar? - No	100%	Zero Level (Very - Very Poor)
12	Motivation affects on performance	75%	About 2 nd Sigma Level (Poor)
13	Level of factory working performance	75%	About 2 nd Sigma Level (Poor)
14	Employees working efficiency level	50%	1 st Sigma Level
15	Level of satisfaction enjoyed by farmer members	75%	About 2 nd Sigma Level (Poor)
16	Awareness of Six Sigma norms - No	100%	Zero Level. (Very - Very Poor)

Source: Field Work

The above table shows the performance of cooperative sugar factories with six sigma standard in Kolhapur district. It is observed that the leadership is 100% standard in cooperative sugar factories in Kolhapur district. Leaders' performance is at six sigma level. It may be pointed out that the cooperative leaders have started the cooperative sugar factories in the rural areas with various limitations. It is worth noting here that this leadership is unique in the rural areas; which really helps the rural poor farmers and small artisans. Considering the work culture of employees, it is found that only 50% of the employees are maintaining their work culture. This is a serious flow in the cooperative sugar factories. It must be borne in mind that employees' work culture constitutes a very important factor in the sustenance and enhancement of any organizational quality. In a competitive world, work culture is very important for the betterment of institutions. If this work culture is related to sigma level, it is found that sigma level of this parameter is at 1st sigma and reflects a serious issue in the cooperative sugar factories. Management decisions in cooperative sugar factories are taken on democratic basis. It is observed in this study that 75% of the managerial decisions are taken on merit and quickly and is good for the cooperative sugar factories performance. It is about 2nd sigma level. Although the 75% of the managerial decisions are taken quickly and on merit basis, this is not reflected in the performance of the cooperative sugar factories, which is very poor and shows lack of professional approach. Meritorious and quick decisions in cooperative sugar factories should not adversely affect the performance of the cooperative sugar factories but does not seem to reflect today, with sigma level 2nd stage. The factories must endeavor to improve quick and meritorious managerial decisions to six sigma level. The cooperative sugar factories are fulfilling 75% of social responsibilities for the members and in the vicinity of the sugar factory. It is somewhat a good indication. Social responsibility has vast meaning and fulfilling of social responsibility is a difficult task. Considering sigma level point of view, at 2nd level, needs improvement. The cost of production of sugar, 75% of the respondents mentioned that it was average in nature. It means that cost of production of sugar is neither low nor high. In a competitive world, lower cost of production is required to attract customers, and especially, in cooperative sugar, to increase surplus. Referring to sigma level which is average i.e. 2nd level and, is not acceptable in the present cooperative sugar factories should reduce the cost of production of sugar for better performance. It is worth nothing that almost all (100%) respondents mentioned that management strategy in cooperative sugar factories was good.

At sigma level it is at 6th position and is a good indication. As per the cooperative sugar industries' management point of view the concerned strategy might appear to be good, but by considering the outside experts' opinions, their management strategy is not up to the mark. Awareness of intellectual property among the cooperative sugar factories management is completely missing. The 100% respondents have mentioned that there is no awareness about intellectual property. The performance parameter regarding intellectual property is at 6 sigma level is zero. It indicates that good amount of talented brains might not be considered in the cooperative sugar sector. It is not good for performing organizations and it is very - very poor at sigma level. As far as Human Resource (HR) policy in the cooperative sugar factories in Kolhapur district is concern, 75% of the respondents have mentioned that there is a standard HR policy in the cooperative sugar factories. It is about 2nd sigma level which is not acceptable in the present scenario. Considering the rural based industry and providing jobs to the rural masses, these cooperative sugar factories are working very well. Providing job is not sufficient now-a-days but getting things done in the most efficient manner from an employee is required which is not up to the mark in cooperative sugar factories in the sample area. It is found that the management people are some what aware of the present sugar market trends. The present sugar market trend awareness is about 2nd sigma level which is not sufficient for the cooperative sugar factories. Seventy five percent of the respondents are somewhat aware of the present sugar market trends. If this is the case a question arises as to why these experts are not able to market their sugar at a good price in the national and international markets. It is true that there are government restrictions, but other private and a few cooperative sugar factories are trading their sugar and by-products more profitable in the national and international markets. In this regard good awareness is required for capturing national and international sugar and by-products markets. It is found that the responsibility of the management for performance of cooperative sugar factories is 100%. It means that the management of cooperative the sugar factory is held responsible for performance of cooperative sugar factories. The management of the cooperative sugar has accepted the responsibility of performance of cooperative sugar factories. It is true that the cooperative sugar factories are theoretically following performance, but the efficiency of the practical applicability of social responsibilities of the cooperative sugar factory management is questionable. Considering six sigma level it is accepted by the cooperative sugar factory management that we are responsible for social

accountability. It is observed by the researcher that 100% of the respondents have mentioned that they are not getting good selling price for their sugar. It indicates that the cooperative sugar factories are not getting good price for their sugar from the market. Considering sigma standard point of view, it is found very - very poor in the cooperative sugar factories. For getting good price for the sugar, market study, future trading, appointment of qualified sugar marketing executives, etc. are required. In earlier question 75% of the respondents were somewhat aware about the present sugar market trends. If this is the case then why are the cooperative sugar factories not getting good price for their sugar? A detailed study is required for further conclusions. Seventy five percent of the respondents have mentioned that employee's motivation has affected performance. For a higher performing organization, motivation is a must. Motivation impact on cooperative sugar factories performance is about 2nd sigma level and it is not satisfactory. In competitive scenario for high performing organization, a good amount of motivation to employees is required. The factory working performance level is 75%. It means that the overall factory performance is about 2nd sigma level, which is not up to the mark. The overall performance of the co-operative sugar factory is not satisfactory. The researcher has indicated that the employees' working efficiency level is 50%. It is not acceptable in the competitive environment. An employee working efficiency is compared with sigma level and it is found at 1st sigma level, which is very poor. For betterment of the cooperative sugar factories, employees' working efficiency has to increase. Employees' motivation, training, standardization, bench marketing, quality circle (Q.C), five S's (Japanese words: Seiri, Seiton, Seiso, Seikestue, Shitsuke) etc. can increase their working efficiency. The farmer members are enjoying 75% satisfaction level in the cooperative sugar factories. It is a good indication from satisfaction point of view. Considering sigma level it is at about 2nd sigma level. Considering other environments in the rural based industries, the cooperative sugar factory farmer members are somewhat happy about existing facilities. This satisfaction may be because there is no other alternative in the rural area as an agro business, at the movement. Member farmers enjoyed good amount of facilities and services from the cooperative sugar factories for the last 30-40 years. But things are changing, circumstances have been changing, and under this environment, the cooperative sugar factories have to change their mindset and performance level for offering maximum satisfaction to the farmer members. It is especially noted that the co-operative sugar factory management people are not aware about six sigma norms. All the

respondents (100%) have indicated that they are unaware about six sigma norms and this unawareness is not good to the cooperative sugar factory management.

9. Conclusion:

Concept of co-operative is good but its implementation needed to be revised. At present a few co-operative sugars are working very well and they shown their excellent performance but majority of the co-operative sugar factories are not working properly and economically, where cluster may be formed on experimental basis and tackled the issues in the cooperative sugar factories. Successful co-operative sugar factories are also ideal model sugar factories in co-operative sector and the need of the time is to become ideal and show the path to others to become ideal. In cooperative sugar factories should follow corporate culture and professional management, which is weak in co-operative sugar factories. Privatization of co-operative sugar is a sort of compromise with closing down the co-operative sugar factory. At present the co-operative sugar factories are in vicious circle and to bring out from vicious circle, some strong policy decision is required especially clustering, changing the mind set of co-operative management etc. The researcher has observed that the co-operative management is not interested to change them self. Hereafter professional management, cost reduction, proper planning, efficient management, less political interference, quick decisions, effective inventory, forward market for sugar, total quality management, etc. techniques should be used in cooperative sugar factory management and it is possible thorough clustering the nearby cooperative sugar factories. The paper writer knows very well that the difficulties will occur for clustering the cooperative sugar factories, although the thought behind the clustering of the cooperative sugar factories is to start some extent towards cluster formation. The co-operative sugar factories should change their attitude for facing global challenges. It is suggested to cooperative sugar factories that to implement cluster approach model for effective utilization of all resources in the cooperative sugar factories. The researcher has analyzed the 16 parameters for measuring the six sigma performance of cooperative sugar factories in Kolhapur district. It is found that the cooperative sugar factories leadership standard, management strategy, management responsibilities are at 100 percent (Six Sigma Level) performance level. Quick decisions, social responsibilities, cost of sugar, human resource policy, awareness of sugar market trend, motivation, work performance and farmers' satisfaction are at 75 percent (about second sigma level) performance level. Employees' work culture, employees' working

efficiency is at 50 percent (about first sigma Level) performance level, and intellectual property awareness, sugar selling price, and awareness of Six Sigma is zero percent (Zero sigma Level) performance level. The experts have mentioned that the cooperative sugar factories should concentrate on by-products of the sugar and sugar cane which will help in effective and efficient running of sugar factories. Value addition products should be produced in the cooperative sugar industries. Value addition methods, research on expenditure control, productivity enhancement, harvesting, juice transport instead of cane transport, annual cane plantation programs etc. which will help the factories to run for 300 days in a year. To get the maximum benefits, why not to club the private company objectives and cooperative objectives as per the present environment? The “Cooperative - Private Organization”, would really help to maintain six sigma standard level in cooperative sugar factories.

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A Study on the Social Equity and Inclusive Economic Growth of Handloom Weavers' Cooperatives in Chinnalapatti Cluster, Dindigul District

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Abstract:

This study investigates the role of handloom weavers' cooperatives, in achieving social equity and inclusive economic growth of the handloom community in chinnalapatti. The social equity refers to the concept of addressing disparities, fair distribution of resources, strengthen the community to promote economic growth and inclusive economic growth refers to achieving equal opportunities and equal social status which involves reduction of income inequalities, creation of quality jobs, access to education and financial inclusion such as banking, credit and insurance

The handloom sector plays an important role in the economic development of the rural poor in the state. It contributes significantly by generating more employment opportunities and providing bread to the rural poor. Especially the people in chinnalapatti rely on handloom in majority. It is their traditional occupation but due to the involvement of intermediaries like master weavers, the community is being affected by the low and insufficient wages for years. The objective of the study is to find the role of cooperatives in achieving the inclusive economic growth and social equity in chinnalapatti handloom community. The research addresses the following critical questions: Does the HWCS in chinnalapatti uplift the handloom community through their viability? Do the cooperatives ensure decent jobs for the community? Do the cooperatives provide sufficient services to uplift the standard of life of handloom community?

This study is empirical in nature; it involves primary data collected from the eight societies in chinnalapatti cluster and the members of those societies in sampling basis. The study found that the handloom community has benefitted

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more from the cooperatives as it provided stable price for their products and supply of raw materials. It ensures social equity and financial inclusion through distribution of surplus among the members on fair basis and implements various government schemes for the welfare of the handloom community. The study shows positive results as the eight societies in chinnalapatti handloom cluster supports the handloom community as it ensures key livelihood aspects such as fair wages, decent jobs, health care, insurance benefits, old age pensions and given upskilling training sessions to preserve the artform of handlooms.

Key Words:

Handloom Weavers, Social Equity

Introduction:

The craft of hand weaving is an essential component of India's rich cultural legacy. Handloom in India is just as old as the human civilization. One of the largest unorganized economic sectors and an essential part of rural and semi-rural lifestyles, the handloom industry employs about 35 lakh people. Over 25 lakh women are employed in the sector as weavers and allied workers, making it a major factor in the economic emancipation of women. The handloom in Tamil Nadu is being woven together with soul of the people of certain community. Such like circumstances are being practised by the people of Chinnalapatti, a town in Dindigul district. The sarees woven in Chinnalapatti has a separate global market. The major occupation of the people of Chinnalapatti are producing handloom sarees, shawls, and other textiles.

To make handloom goods more marketable, Co-optex has been launching innovative designs and products. Co-optex works closely with the National Institute of Design in Bangalore, the Weavers' Service Center in Chennai, the National Institute of Fashion Technology in Chennai, and other institutions to create innovative designs. The Co-optex, an apex marketing society, has demonstrated encouraging performance over the years and helped its members advance socioeconomically. The active involvement of the weavers made this possible. competent management and leadership, followed by government support and close top-level oversight.

In Tamil Nadu, there are currently 1034 primary handloom weavers' cooperative societies, covering around 4 lakh looms. In rural and semi-urban areas with a high concentration of handloom weavers, these weavers'

cooperative societies are established. It was estimated that these societies produced an average of 1200 lakhs of meters of different types of handloom goods. These societies had an annual scale turnover of about Rs. 450 crores. According to the 1996–1997 working performance of weavers' cooperative societies, roughly 50.2% of the societies operated for profit. The state government's welfare and development programs for handloom weavers are all directed through the main marketing tactics used by handloom cooperatives.

Statement of the Problem:

The State's rural poor people's economic development is significantly influenced by the handloom industry. By creating new job possibilities and giving bread to the impoverished in rural areas, it makes a substantial contribution. Over 4 million people are absorbed into its fold. The government has implemented numerous initiatives to support the handloom industry since it recognizes its significance. Despite a number of government initiatives, including direct financial aid and institutional support, the handloom weavers remain in a deplorable position and continue to suffer losses as a result of numerous issues. These issues include inadequate raw material supply, yarn price increases, inadequate marketing facilities, inadequate market awareness and promotion, inadequate financial resources, middlemen's involvement, competition from mill and power loom products, a lack of modern technology, delayed and insufficient government and affiliated agency support, and more. Additionally, the number of members is declining daily, as are the active users that weave. Despite Co-optex's role in product marketing, societies cannot rely on it all the time. They are occasionally compelled to sell locally or through middlemen.

The questions are given below, 1. What are the functions carried on in PHWCS? 2. How are resources mobilised? 3. What are the products produced and methods of production? 4. What is Chinnalapatti Cluster? 5. What are the welfare programmes and schemes in sample HWCS? 6. Does the HWCS in chinnalapatti uplift the handloom community through their viability? 7. Do the cooperatives ensure decent jobs for the community? 8. Do the cooperatives provide sufficient services to uplift the standard of life of handloom community?

Methodology:

The objectives of this study are:

1. To examine the existing working pattern of the sample societies.
2. To analyse the performance of weavers' society related to input-output aspects.
3. To offer suggestions as a package of measures to make handloom weaving, economically viable based on the available resources, men and materials.

The sampled Eight societies were selected purposively to analyse the performance of the chinnalapatti handloom cluster. It is empirical study done based on primary data collected from the society.

Interviewed Scheduled were prepared to get information from the Societies. Information related to membership Position, Share Capital, Working Capital, Reserves, Deposits and Profit details, etc....,

This study was carried out during the academic year 2022-2023. Fieldwork was organized in February 2023.

The study could not cover more than 5 years data due to the time constraints. Also, the study is limited to the data collected from the society. In Dindigul there are 5 clusters located in Dindigul, Palani, Chinnalapatti(Athoor) which involves in production and sales of Kora sarees, Art silk sarees, Cotton sarees. And this study focuses on functioning of chinnalapatti handloom cluster which comprises of 8 HWCS they are,

- ❖ M.H.147 Kamala Nehru Handloom Cooperative Production & Sales Society Ltd.,
- ❖ M.H.35 Namnadu Handloom Weavers Cooperative Production Sales Society Ltd,
- ❖ M.H..34 Silambu Selver Sivagnanam Handloom Weavers Cooperative Production Sales Society Ltd,
- ❖ M.H..37 Anjugam Weavers Cooperative Production Sales Society Ltd,
- ❖ M.H.169 Amara Sanjay Gandhi Handloom Cooperative Production & Sales Society Ltd.,
- ❖ M.H.87 Sithayankottai Handloom Weavers Cooperative Production Sales Society Ltd,
- ❖ M.H.41 Anna Handloom Weavers Cooperative Production Sales Society Ltd,
- ❖ M.H.43 Gandhiji Weavers Cooperative Production & Sales Society Ltd.

Table 1: Business Performance of the Sampled Societies

Name of the society	Families engaged	No of looms	No of active looms	No of idle looms	Average weaving capacity of each looms (meters/per month)
M.H.169 Amarar Sanjay Gandhi Handloom Cooperative Production and Sales Society Ltd.,	100	104	90	14	80
M.H.37 Anjugam Weavers Cooperative Production and Sales Society Ltd.,	200	159	112	47	75
M.H.87 Sithaiyankottai Handloom Cooperative Production and Sales Society Ltd.,	120	147	100	47	130
M.H.147 Kamala Nehru Handloom Cooperative Production and Sales Society Ltd.,	300	151	128	23	166
M.H.35 Namnadu Handloom Cooperative Production and Sales Society Ltd.,	170	104	80	24	66
M.H.34 Silambu Selvar Sivagnanam Handloom Cooperative Production and Sales Society Ltd., i	160	156	112	44	39
M.H.41 Anna Handloom Weavers Cooperative Production and Sales Society Ltd.,	150	130	113	17	135
M.H.43 Gandhiji Weavers Cooperative Production and Sales Society Ltd.,	200	140	100	40	110

Findings and Interpretations:**Working capital:**

The Working capital (W.C) consisting of owned funds (i.e. Share capital and reserves) and borrowed funds (i.e. Borrowing funds and Deposits) of the society as given below :

Position of Share Capital :

Share capital is the main sources of fund for the society. The share capital is subscribed by the members of society. Normally the value per share is Rs. 100/- A member can subscribe and the minimum of the one share and maximum unlimited. The Recent trends shows that there a decreasing trend in share capital of all the sampled societies. Among which Namnadu HWCS has seen highest of erosion in share capital i.e, of 68% in past 5 years, also Silambu Selvar HWCS has been maintaining stable share capital but also seen decrease of 18% in the past 5 years.

Position of Reserve Funds:

The reserve fund [R.F] shall belong to the society as a whole and intended to meet unforeseen losses. It shall be indivisible, and members shall have any claim to a share in it.

There is gradual increase in reserve funds except in sithayankottai society. Other societies performed well as it shows huge difference especially Anjugam HWCS increases its reserve funds which will impact positively in working capital.

Position of Deposits:

The handloom weavers' cooperative society collects the deposits in the form of savings Deposits and Thrift deposits, under saving deposits scheme, security deposit, member thrift deposits, members saving and security scheme, staff security deposits, employees P.F, and members contributions expenses. In the composition of working capital, deposits have huge impact.

Gandhiji HWCS has shown a steady increase in position of deposits i.e 30%. Only Anjugam HWCS has decrease in past 5-year deposits which has also increased its deposits by 6% in year 2021-22 as compared to year 2017-18.

Borrowings Position:

Sample societies borrow loans from the Dindigul DCCB, Cash Certificate, and advance from Dindigul DCCB, borrow fund from HUDCO, get from Government. The Borrowing capacity of a society is depended on the share capital and reserve fund. Even though there is a increasing trend in reserve funds, On the other hand share capital of sample societies were in decreasing tren, which make difficulty in position of Working capital of Amara Sanjay Gandhi, Anjugam and Anna HWCS, silambu selvar made significant improvement in Borrowing position.

The table below given the details of the sampled societies regard the working capital.

Table 2: Working Capital

Society	Working capital										
	2017- 18		2018 - 19		2019 - 20		2020 -21		2021 -22		CGR
	Rs.	G.R	Rs.	G.R	Rs.	G.R	Rs.	G.R	Rs.	G.R	
Amara Sanjay Gandhi HWCS	134	0	135.1	0.8	147.4	9	131	-11	133	1	-1
Anjugam HWCS	146	0	153.8	5	149.2	-2	132	-11	145	9	-1
Anna HWCS	146	0	155.2	6	161.1	3	141	-12	144.	2	-2
Gandhiji HWCS	173	0	177.1	2	175.8	-0.7	174	-1	190	9	10
Kamala Nehru HWCS	187	0	200.0	6	200.1	0.05	197	-1	197	0	6
Namnadu HWCS	134	0	138.1	3	133.7	-3	122	-8.7	141	15	5
SilambuSelvar HWCS	155	0	162.7	4	158.5	-2	165	4.1	175	6	12
Sithayankottai HWCS	123	0	127.1	3	129.4	1	129	-0.3	129	0	5

(in Lakhs) (source: compiled from field work)

Working capital consist of owned funds (share capital, reserve funds) and Borrowed funds (Deposits, borrowings). From the reference, it shows there is increasing trend in Gandhiji, Kamala Nehru, Silambu Selvar and sithayankottai HWCS.

By the impact of share capital, working capital of other three societies impacted negatively which is due to the withdrawal of ICDP shares and removal of inactive members.

Anjugam HWCS has the highest profit of rs.10.2L for the year 2020-21 while Amarar Sanjay Gandhi HWCS had the highest loss of rs.0.9L

Anjugam HWCS has the highest profit of rs.10.2L for the year 2021-22 while Anna HWCS had the highest loss of rs. 1.1L.

Table 3: Net Profit / Net Loss

Society	Net Profit/ Net Loss										
	2017- 18		2018 - 19		2019 - 20		2020 -21		2021 -22		CGR
	Rs.	G.R	Rs.	G.R	Rs.	G.R	Rs.	G.R	Rs.	G.R	
Amara Sanjay Gandhi HWCS	2.36	0	3.17	34	2.97	-6	- 0.9	-130	1.28	242	-45
Anjugam HWCS	2.09	0	3.45	65	3.93	13	10.2	159	10.2	0	388
Anna HWCS	1.27	0	2.77	1518	0.23	91	0.79	243	-1.1	-239	-180
Gandhiji HWCS	3.51	0	3.03	13	3.98	31	3.99	0.25	3.5	-12	1
Kamala Nehru HWCS	0.3	0	2.4	700	3.17	32	-1.7	-153	1.10	-164	260
Namnadu HWCS	0.20	0	0.85	325	1.26	48	0.19	-84	-0.3	-257	-250
Silambu Selvar HWCS	2.8	0	2.87	2.5	3.2	11	2.4	-25	2.6	8.3	-8
Sithayankottai HWCS	0.8	0	0.79	887	0.6	24	-5.2.	-966	-5.2	0	-700

From this table, Anjugam HWCS has huge profit during the study period. Amara Sanjay Gandhi and Anjugam HWCS had moreover same Net profit during 2017-18, but Anjugam HWCS has stable Net profit for past 5 years. Also, Gandhiji HWCS has a stable Net profit.

Table 4A: Members welfare schemes

Society	TM	SSS		OAP		Family pension		Free electricity		Shiksha Sahyog yojana	
		C1	C	C1	C2	C1	C2	C1	C2	C1	C2
Amara Sanjay HWCS	105	70		24	23%	1	1%	50	48%	-	-
Anjugam HWCS	240	83		24	10%	1	0.4%	57	24%	-	-
Anna HWCS	140		42	42	30%	1	0.7%	80	57%	-	-
Gandhiji HWCS	295	1	65	73	25%	10	3.4%	200	68%	-	-
Kamala Nehru HWCS	260	8	32%	24	9%	10	3.8%	130	50%	-	-
Namnadu HWCS	181		22	25	13%	1	0.5%	40	22%	-	-
Silambu Selvar HWCS	160	73		42	26.9%	6	3.8%	90	57.6%	-	-
Sithayankottai HWCS	120	59		18	15%	10	8.3%	100	83%	-	-

Table 4 B: Members welfare schemes

Society	TM	MUDRA		Bima yojana		Bunkar bima		Green house	
		C1	C2	C1	C2	C1	C2	C1	C2
Amara Sanjay HWCS	105	13	12%	-	-	-	-	-	-
Anjugam HWCS	240	8	3.4%	-	-	-	-	30	12.7%
Anna HWCS	140	65	46%	85	32%	-	-	24	12.7%
Gandhiji HWCS	295	93	32%	85	29%	-	-	67	23%
Kamal Nehru HWCS	260	32	12%	85	32%	-	-	-	-
Namnadu HWCS	181	60	33.3%	110	61%	2	1.1%	-	-
Silambu Selvar HWCS	160	11	7%	100	66%	5	3.2%	21	13.4%
Sithayankottai HWCS	120	3	2.5%	80	66%	-	-	15	12%

(source: compiled from field work)

TM – Total members of the society

C1 - No. Of. Beneficiaries

C2 – Percentage of beneficiaries out of total members of the society

Findings:

1. From this study, we find that the active members of the society reduced year after the reason was ill health and more aged.
2. Also, study shows that there is decreasing trend in share capital during the given period. This decreasing trend is impact of withdrawal of ICDP shares from the sample societies.
3. Due to the increase of Net profits in the sample societies, there is a increasing trend in the reserve funds which has the capacity of stable and healthy position of the societies. Especially Anjugam HWCS increases this its reserve funds which will impact positively in working capital upto 13.1 lakhs in 2021-22.
4. During the study period, the Deposits of the sample societies increased gradually. Other than Anjugam society, remaining societies has shown positive trend and Only Anjugam HWCS has shown decrease in overall growth rate of deposits which has also increased its deposits by 6% in the year 2021-2022 compared to deposits in 2017-18.

5. The Borrowings of the sampled societies were affected by decrease in share capital of Amarar Sanjay Gandhi HWCS (-3%), Anjugam HWCS (-2%), Anna HWCS (-4%) Growth Rate whereas Silambu Selvar HWCS has shown positive trend by 8% GR during the year 2021-22.
6. The Working Capital were shown a decreasing trend in societies like Amarar Sanjay Gandhi HWCS (133 lakhs), Anjugam HWCS (145 lakhs), Anna HWCS (149 lakhs) due to the withdrawal of ICDP shares from these three societies. There is an increasing trend in working capital of Gandhiji HWCS (190 lakhs), Kamala Nehru HWCS (197 lakhs), Silambu Selvar HWCS (175 lakhs), Sithayankottai HWCS (129 lakhs).
7. There is an increase in financial preferences of societies as it has a positive impact in the purchase position. Especially in Anjugam HWCS has shown increasing trend (74.1 lakhs) during 2021-22.
8. The Production Charges of the Sample Societies has shown consistent increase as they own production sheds which involves various expenses such as purchase of raw materials, increasing weaving charges, etc., Anjugam HWCS has a significant difference from other societies (169 lakhs) compared to the Namnadu HWCS(50.5 lakhs) during the year 2021-22.
9. The sales position of the Sample Societies was increased remarkably as Anjugam HWCS has shown the highest sales position (180 lakhs) with 40% GR (2021-22).
10. During the year 2021-22, the Net Profit of the societies Anna HWCS, Namnadu HWCS, Sithayankottai HWCS were faced losses of 1.1 lakhs, 0.3 lakhs, 5.2 lakhs respectively, whereas the other five societies Amarar Sanjay Gandhi HWCS, Anjugam HWCS, Gandhiji HWCS, Kamala Nehru HWCS, Silambu Selvar HWCS has shown significant profits of 1.28 lakhs, 10.2 lakhs, 3.5 lakhs, 1.10 lakhs and 2.6 lakhs respectively.
11. Schemes like free electricity, Family pension, savings and security scheme, old age pension, bunkar bima yojana were very useful as they were providing productive services and benefits to the members, whereas training centers, Scholarships, stipend weren't implemented in this cluster.

Suggestions:

1. The low level of Net profit was caused by lower share capital in essence. Thus, to increase the share capital, we suggest to increase the Share capital amount from existing members and to seek help from the Government in

the form of shares or financial assistance.

2. Weaving has been a way of life in Chinalapatti for centuries. In every corner we look upon in the town we could see and hear the weaving sound. They actively involve in producing sungudi sarees, cotton sarees, lungi/dhoties, silk sarees, kora etc., And also every household has a own display unit within the house to market their produce. But sample HWCS only engage in production of kora cotton sarees so we suggest them to find and explore more variety of cloth materials and produce based on the consumer preferences.
3. In the era of digitalisation, digital marketing and E-commerce business in all aspects are flourishing, though co-optex(marketing federation) has an E- commerce platform we suggest them to conduct various digital marketing techniques like conducting an advertising campaign in facebook ,Google chrome etc.,
4. Also, by increasing the beneficiaries in the member welfare schemes by HWCS may increase the productivity of society and also development of loyalty and dedication among members of the society and In some sample societies, problems like stagnant finished goods, unavailability of adequate yarn supply are suggested to be solved in a systematic manner.

Conclusion:

The study revealed that the members and societies are united as one and the societies provides more benefits to the members to overcome the problems. So, we conclude that the societies and members are utilized properly and managed properly for what they are meant for. It is amazing to see that where government help cannot reach, the cooperatives had been formed by the masses due to common needs and difficulties. The Industrial cooperatives essentially deal with handlooms, handicraft and other village industries.

The social equity refers to the concept of addressing disparities, fair distribution of resources, strengthen the community to promote economic growth and inclusive economic growth refers to achieving equal opportunities and equal social status which involves reduction of income inequalities, creation of quality jobs, access to education and financial inclusion such as banking, credit and insurance.

The Handloom Textiles constitute a timeless part of the rich cultural Heritage of India. The element of art and craft present in Indian handlooms makes it a potential sector for the upper segments of market domestic as well as global.

However, the sector is beset with manifold problems such as obsolete technologies, unorganized production system, low productivity, inadequate working capital, conventional product range, weak marketing link, overall stagnation of production and sales and, above all, competition from power loom and mill sector. As a result of effective Government intervention through financial assistance and implementation of various developmental and welfare schemes, the handloom sector, to some extent, has been able to tide over these disadvantages. Thus, Handloom forms a precious part of the generational legacy and exemplifies the richness and diversity of our country and the artistry of the weavers.

The study found that the handloom community has benefitted more from the cooperatives as it provided stable price for their products and supply of raw materials. It ensures social equity and financial inclusion through distribution of surplus among the members on fair basis and implements various government schemes for the welfare of the handloom community. The study shows positive results as the eight societies in chinnalapatti handloom cluster supports the handloom community as it ensures key livelihood aspects such as fair wages, decent jobs, health care, insurance benefits, old age pensions and given upskilling training sessions to preserve the art of handlooms.

In these Cooperatives the members have equally treated in every sense such as providing the raw materials, both male and female were involved in weaving, having equal voting rights etc... The government policies are implemented to ensure the social equity and economic growth of the community. From the above data the sampled societies implemented welfare measures of the government for the benefits of its members and act as a bridge between the government and the People. In this regard the sampled cooperative societies are not just handloom production houses but also engine for the social change by providing equity in both social and economic aspects and by providing social protection to the people by being the voice of the community.



From Marginalization to Empowerment: The Role of Cooperatives in Supporting Artisans and Inclusive Growth in Tambat Ali, Pune, Maharashtra

Ms. Aishwarya Patil*

Abstract:

Artisans represent a significant cultural and economic asset, yet they often face challenges of marginalization, lack of market access, and inadequate institutional support. This study focuses on the artisans of Tambat Ali in Pune, Maharashtra, analyzing their socio-economic conditions, challenges, and the transformative role of cooperatives in empowering them. Through survey data, this report evaluates demographics, training sources, income levels, technological adoption, and marketing strategies, highlighting cooperatives as a vital mechanism for inclusive growth. Special emphasis is given to the Mahakalika Cooperative Society and its significant impact on the lives of these artisans.

Key Words:

Tambat Ali, Artisans, Inclusive growth

Introduction:

Tambat Ali, a historic locality in Pune, Maharashtra, is renowned for its community of artisans specializing in the crafting of traditional copper and brassware. These crafts hold significant cultural and historical value, representing a legacy passed down through generations. However, despite their artistry, these artisans face systemic challenges that have pushed them towards economic and social marginalization. Limited access to modern markets, the rising cost of raw materials, and the lack of institutional support are just some of the hurdles threatening their livelihoods.

This report aims to explore how cooperatives, particularly the Mahakalika Cooperative Society, have emerged as a lifeline for these artisans. Cooperatives provide a platform for artisans to come together, share resources, and gain better access to markets and financial support. By addressing these systemic barriers, the cooperatives contribute to the artisans'

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empowerment and ensure the preservation of this cultural heritage. Furthermore, the report provides insights into the historical policies for artisans in India and how they have shaped the current landscape.

Objectives:

The primary objectives of this study are as follows:

1. To analyze the socio-economic conditions of artisans in Tambat Ali.
2. To assess the challenges faced by these artisans in sustaining their craft.
3. To evaluate the role of the Mahakalika Cooperative Society in fostering inclusive growth and empowerment.
4. To review historical policies for artisans in India and their impact on the artisan community.
5. To provide actionable recommendations for sustainable development of artisan communities in Tambat Ali.

Methodology:

This study adopts a mixed-method approach, utilizing both quantitative and qualitative data collection methods. A survey was conducted with 26 artisans from Tambat Ali to collect primary data on their demographics, income levels, training sources, challenges, and the role of cooperatives. The data collected were analyzed to draw insights into the artisans' socio- economic conditions and the impact of cooperatives on their livelihoods.

Secondary data sources, including government reports, academic literature, and case studies, were also reviewed to contextualize the findings and provide a comprehensive understanding of the challenges and opportunities for artisans in Tambat Ali.

Results and Discussion:

Demographics of Artisans:

The artisans of Tambat Ali belong to a diverse demographic profile, characterized by variations in age, gender, and caste. These differences influence their access to resources, training opportunities, and economic stability.

Gender Distribution:

- Male: 65%
- Female: 35%

The majority of artisans are male, reflecting the traditional gender roles within the community. However, women also play a significant role, particularly in finishing and marketing tasks.

Age Group Distribution:

- 25-34 years: 20%
- 35-45 years: 50%
- 46-60 years: 30%

Most artisans fall within the age group of 35-45 years, indicating a predominance of middle- aged individuals. This age distribution underscores the generational aspect of the craft but also raises concerns about the lack of participation from younger generations.

Caste Representation:

- OBC: 80%
- General: 15%
- SC/ST: 5%

The overwhelming majority of artisans belong to the Other Backward Classes (OBC), a socio- economically disadvantaged group. This highlights the vulnerability of the community and the need for targeted support.

Analysis:

The demographic data reveal systemic inequities, such as caste-based marginalization and limited participation from younger generations and women. Addressing these disparities is essential for fostering inclusivity and ensuring the sustainability of the craft.

Income and Training:

Table 1: Monthly Income Bracket

Income Range (INR)	Percentage
Less than 15,000	58%
15,000-30,000	30%
Above 30,000	12%

Table 2: Training Sources

Training Source	Percentage
Family-based	70%
Formal Skill Development	20%
Self-taught	10%

A significant majority of artisans earn less than INR 15,000 per month, reflecting their precarious economic conditions. The reliance on family-based training demonstrates the generational nature of the craft but also indicates a gap in access to formal skill development programs that could enhance productivity and innovation.

Analysis:

The data highlight the urgent need for interventions to improve income levels and provide formal training opportunities. This would enable artisans to diversify their skills, adopt modern techniques, and access higher-value markets.

Table 3: Challenges Faced

Challenge	Percentage
Lack of Market Linkages	76%
Technological Gaps	45%
High Raw Material Costs	50%

The survey identifies three primary challenges faced by artisans: lack of market access, technological gaps, and rising raw material costs. These issues collectively hinder their ability to sustain their craft and compete in modern markets.

Analysis:

The high percentage of artisans citing market linkages as a challenge underscores the need for robust marketing platforms and networks. Similarly, addressing technological and cost-related barriers is crucial for enhancing the artisans' productivity and profitability.

Case Studies for Research Paper: Tambat Ali's Artisans:**Case Study 1:** Ajit Pimple – A Generational Shift in Artistry

Ajit Pimple, a third-generation artisan, transitioned from traditional copper utensils to decorative products due to reduced demand. His global outreach through online platforms contrasts with limited local support, exemplifying adaptability amidst adversity. Challenges include high raw material costs, diminishing manpower, and unhelpful government schemes.

Case Study 2: Kishore Potphode – Sustaining Tradition Amidst Modernity

Since 1972, Kishore has specialized in traditional copperware, like tops and kalash. Despite workshops and media coverage, he struggles with rising production costs, reduced labor, and limited government aid. His story highlights the resilience required to sustain traditional practices.

Case Study 3: Surendra Pophode – Balancing Legacy and Modern Aspirations Surendra, part of a 104-year-old family business, juggles copper craftsmanship with a data science course. His father's religious artifacts gained recognition, but capital constraints, labor shortages, and rising costs remain obstacles. The pandemic revived interest in copper for health benefits, yet sustainability challenges persist.

Case Study 4: Harshali Potphode – Women’s Role in Brassware Evolution
Harshali oversees finishing and marketing in her family’s four-generation business. Machine use has streamlined production, but profits remain slim. She underscores the cultural significance of brass utensils and women’s participation in preserving heritage despite economic pressures.

Case Study 5: Chandrashekhar Salve – The Physical Toll of Craftsmanship
Chandrashekhar, a seventh-generation artisan, bridges traditional and machine-assisted methods. Financial difficulties hinder his ability to modernize, while cultural rituals tie his craft to community identity. His story illustrates the physical demands and limited rewards of maintaining artistry.

Case Study 6: Subhash Potphode – The Struggle for Equity
Subhash critiques disparities in support, claiming government aid favors industrialists over local artisans. Despite his family’s contributions to Pune’s brassware history, market shifts and inflation strain his business, symbolizing systemic neglect of grassroots craftsmen.

Case Study 7: Sunita Kharavlikar – Preserving Heritage Through Hardship
Sunita, from Nashik, recalls her family’s transition from handcrafted brassware to machine- assisted production. COVID-19 highlighted their vulnerability, but community solidarity and festivals reinforce cultural continuity. She emphasizes the need for increased public appreciation and institutional support.

These case studies collectively reveal the challenges and resilience of Tambat artisans, underlining the urgent need for systemic support to preserve this cultural heritage.

Role of Mahakalika Cooperative Society:

The Mahakalika Cooperative Society has been a game-changer for the artisans of Tambat Ali. By providing financial aid, market access, and training opportunities, the cooperative has significantly improved the artisans' socio-economic conditions.

Income Stability and Financial Aid:

Artisans associated with the cooperative report an average monthly income of INR 18,000, compared to INR 15,000 for non-members. The cooperative also provides financial aid and subsidies, reducing production costs and mitigating income fluctuations.

Market Access and Branding:

The cooperative facilitates collective branding and participation in exhibitions and fairs, resulting in a 40% increase in market reach for its members. This has opened up new opportunities for artisans to showcase their products and connect with a global audience.

Technological Adoption:

The cooperative has organized training programs that have increased technological adoption by 50%, enabling artisans to enhance their productivity and product quality.

Analysis:

The success of the Mahakalika Cooperative Society demonstrates the transformative potential of cooperatives in addressing systemic challenges and empowering marginalized communities. By fostering collective action and providing targeted support, cooperatives can serve as a model for inclusive growth.

Historical Policies for Artisans in India:

India has a rich history of policies aimed at supporting artisan communities. Some of the key initiatives include:

Artisan Credit Card Scheme: This scheme was introduced to provide artisans with access to affordable credit, enabling them to invest in raw materials and tools.

Handicrafts Development Scheme: This initiative focused on skill development, infrastructure support, and marketing assistance for artisans.

National Handicrafts Development Programme (NHDP): The NHDP aimed to promote technology upgradation and market access for artisan products.

Cluster Development Programme: This program supported artisan clusters with financial aid and capacity building, fostering collective growth and sustainability.

Analysis:

While these policies have laid a foundation for artisan welfare, their impact has been limited by bureaucratic inefficiencies and insufficient outreach. Strengthening the implementation of these policies is essential for achieving their intended outcomes.

Recommendations:

1. **Skill Development Programs:** Collaborate with NGOs and educational institutions to provide formal training in advanced techniques and business management.
2. **Enhanced Market Linkages:** Develop e-commerce platforms tailored for artisans, enabling direct-to-consumer sales.
3. **Raw Material Subsidies:** Advocate for government policies to provide subsidies on copper and brass, reducing production costs.

4. **Strengthening Cooperatives:** Increase funding and capacity-building initiatives for cooperatives like Mahakalika to expand their impact.
5. **Awareness Campaigns:** Promote the cultural significance of Tambat Ali's crafts through local festivals, exhibitions, and social media campaigns.

Conclusion:

The artisans of Tambat Ali exemplify resilience amidst marginalization. Cooperatives, particularly the Mahakalika Cooperative Society, have proven vital in bridging gaps in income stability, market access, and training. However, systemic challenges such as high raw material costs and technological barriers persist. A multi-stakeholder approach involving government bodies, NGOs, and cooperatives is essential to foster sustainable growth and preserve this cultural heritage. Empowering artisans through cooperatives not only revitalizes traditional crafts but also contributes to inclusive economic development.

References:

1. Survey data from artisans in Tambat Ali.
2. Secondary literature on Indian artisan communities.
3. Government reports on handicrafts and cooperatives.
4. Case studies documenting individual artisan experiences.



Business Strategies for the Sustainability of Gandhiji Handloom Weavers Cooperative Production and Sales Society

V. Gowri Shankar*, Dr. B. Tamilmani**

Abstract:

The contribution of Handloom Industry towards the economic development of India can hardly be over emphasized.

According to the Fourth All India Handloom Census (2019-20), the Total numbers of Weavers are 26.74 lakhs. India is considered as the 6th largest Exporter of Textiles & Apparels in the World. India's overall Exports are 138.45 USD in 2023-24. Handloom Industry plays key role by contributing in expansion of GDP in India.

The Handloom Weavers' Co-operative Societies mostly exist in rural and Semi-Urban areas. Presently 1,114 Handloom Weavers Co-operative Societies are functioning under Tamil Nadu Co-operative Societies Act, 1983 and Rules 1988. Total Number of Weaver members are 2.59 lakhs. According to the 4th All India Handloom Census 2019-20 Tamil Nadu is the 3rd strong existence in Handloom sector in India. There are 1.91 lakh handlooms with 2.44 lakh handloom weavers and allied workers employed. The share of handloom industry of our State is 8% and 7% in terms of number of handlooms and workers respectively and out of which 1.18 lakh weavers are in co-operative field in the State with female weavers covering about 60% in total workforce.

Chinnalapatti in Dindigul district is a place known for its craftsmanship in manufacturing Sungudi Cotton Sarees and they are very famous all over the state of Tamil Nadu. In recent years the performance of the Handloom Weavers Cooperative in Chinnalapatti shows a declining trend. The Gandhiji Handloom Weavers Cooperative Production and Sales Society functioning

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well and hence the society were selected for the study. The Objective is to study the Key Functional Performance of the Society and also to offer better suggestions. The Data required are collected from both Secondary and Primary sources. The Data sheet was adopted to get information from the Society. The study would come out with better Operational Strategies for the Sustainability of Handloom Weavers Cooperative Societies.

Key words:

Handloom Weavers Cooperatives, Financial Performance

1. Introduction:

Handloom Cooperatives is a Prominent Handicraft Industry in India that fosters the artistic and skilled development of Marginalized communities while providing them with a means of Livelihood. The Handloom Cooperatives also helps in the economic growth of the rural regions by creating a local markets and supporting ancillary industries.

The Government organisation “Tamil Nadu handloom weavers’ Co-operatives Society Limited” under the brand name “Co-Optex”, an apex co-operative which was established on 1935 with the primary objective is of promoting handloom industry while safeguarding the interest of cooperative weavers. Co-Optex maintains a vast network of 150 showrooms across India to facilitate marketing efforts. During the annual year 2021-2022 co- Optex achieved the retail sales of Rs. 171.90 crores while the online sales through the e- commerce was reached Rs.135.47 lakhs in the same year. Chinnalapatti is a key supplier of cotton sarees including kora cotton sarees and artificial synthetic sarees to Co-Optex. The Gandhiji Handloom Weavers Cooperative Production and Sales Society effectively facilitated this supply chain. In recent years the performance of the Handloom Weavers Cooperative in Chinnalapatti shows a declining trend. But the Gandhiji Handloom Weavers Cooperative Production and Sales Society functioning well and hence the society was selected for the study purposively.

2. Objectives of the Study:

- To study the Key Functional Performance of The Gandhiji Handloom Weavers Cooperative Production and Sales Society.
- To offer suggestions for the better Functional and Sustainability of the society.

3. **Methodology:**

Case study method was adopted. The Data required are collected from both Secondary and Primary sources. The Data sheet was adopted as a Primary Source of data to obtain information from the Society. The Secondary data are collected from government reports and articles. Descriptive statistical methods are used to analysis the data such as mean, growth rate, bar charts, pie charts were used.

4. **Review of literature:**

Suchithra S S and Dr. S. Geetha (2022) a has done a research on “Role of Handloom Industry for the Economic Development of Trivandrum District” it is revealed the problem faced by the handloom sector in Trivandrum district are rising the price of the raw material, shortage of employees, lack of bank loans, lack of public awareness of the products, infrastructure problems. Therefore it is suggested that government and khadhi board significance the development of handloom sector and the usage of the handloom products.

Poongodi B, Ramakrishnan G and Monisaa Tharani S K (2021) has done a research on “entrepreneurial pursuits of weavers in low resource handloom industry” the weavers of the Coimbatore district are not showing interest to start the own business because of the development of the power loom the profit earning was very low for the weavers and they don’t have the enough background to start the business.

Monika Aggarwal (2020) has conducted a case study on “Bringing Design Perspective in Handloom Cooperatives of Odisha” considered of reason for the failures of the cooperatives, supports from the government, govt policy in 12th plan (2012-2017). The linkages of the designers in the apex cooperatives can provide creative design in ikat design framework.

Humbe and Bhalerao (2019) have conducted a study on ‘Effects of promotion on customer’s awareness towards handloom products of Aurangabad districts of Maharashtra’ this study, utilizing both primary and secondary data, investigated the effectiveness of the promotion mix in raising customer awareness of handloom products. The study highlights the critical need for improved weaver education, enhanced awareness among weavers themselves, better transportation and communication, effective promotional campaigns, and technological advancements to support weavers and increase handloom sales.

Anumala and Samala (2017) has entitled a study on “Impact of supply chain management practises on product quality in Indian Handloom Industry with

reference of master weavers” the study reveals that the supply chain management have an substantial effect on the quality of the products.

Jain and Gera (2017) have conducted research named “An Analytical Study of Handloom Industry of India”. According to the research, weavers lack familiarity with contemporary methods in production, packaging, designing, and marketing their products. To foster the growth and successful promotion of the handloom industry, significant investment in research within these areas is essential.

Anusuya and Chinnadorai (2015) have entitled a study on “A study on consumer awareness and satisfaction towards handloom products with special reference to Coimbatore district” the findings of the study deals with the consumer awareness on the handloom products. As a result the consumers are of the handloom products but there is no profits for the handloom sector.

Dr. Rachana Gosami and Dr. Ruby Jain (2014) has entitled a study on “Strategy for Sustainable development of Handloom Industry” to critical analysis the problems faced by the handloom industry and suggested suitable strategy for the handloom sector which are identification of new products, promotions, quality assurance system, distribution channels.

A. Kumudha and M. Rizwana (2013) has conducted a case study on “problems faced by handloom industry – A Study with Handloom Weavers Co-Operative Societies in Erode District” it was found that there is a high price for the yarn consider high cost of production as a major problem, there is a lack of active member in the society, the competition from the mills and power loom sector is considered as an major marketing problem. It is suggested that the sale should be increased and awareness program should be conducted.

Tripathy (2009) prepared a report on “Odisha handloom: Problems and Perspective” This study, primarily based on descriptive data and the author's observations, aims to identify the key problems and explore the perspectives of the Odisha handloom sector. A critical finding suggests the need for a diverse workforce comprising both generalists and specialists to effectively manage productive enterprises, conduct research, and engage in strategic planning within the sector.

5. Profile of the Society:

5.1 Introduction:

Promotion of socio-economic interest of the weavers through supplying raw materials and arranging proper marketing goods produced by weavers is the

basic promise and basic objectives of the handloom cooperative society. Standard of the weavers will ultimately depend on the effectiveness and efficiency of the society to market the goods and products of the member weavers. The market demand for the Textile products has under gone for the dynamic and sea change. The handloom cloth sales in India and overseas depends largely on its quality appeal and utilization value.

Handloom weaving being a cottage industry is not in a position to avail the advantages of the large-scale operations as seen in the textile industry.

Along with this, cost of production handloom cloth is higher than Mill\Power loom cloth, for it involves high human skills and specific specialization.

5.2 Name of the Society:

M.H.43 Gandhiji Handloom Weavers Co-operative Production and Sales Society Limited.

5.3 Origin of the Society:

The Gandhiji Handloom Weavers Co-operative Production and Sales Society was registered on 07.12.1973 and begun its business on 12.12.1973.

5.4 Area of the Operation:

The society's area of operation is confined to Chinnalapatti entire town panchayat and Kalikkampatti village.

5.5 Objectives of the society:

- a) The Principal objectives of the society is to improve the Handloom Industry and the economic condition of the weavers residing in the area of operation for this purpose.
 1. To purchase such raw materials and appliance as may be required for the handloom industry and retail the same either for cash or credit to the members residing in these places.
 2. To purchase yarn and other raw materials and advance the same to weaver – member who shall convert them into finished goods and them to the society to pay wages for such conversion, and to arrange for the marketing of the finished goods to the best advantage of the society.
 3. To purchase and hold on common or let on hire improved appliances connected with the industry.

5.6 Other objectives of the society:

1. To raise the money required for the society by issues of shares and by borrowing by way of deposit or otherwise from the members, Government and others.
2. To act as the agent for the Joint purchase of the domestic and other requirements of its members and for the sale of their finished products.
3. To undertake any or all welfare schemes sponsored by Government and other agencies for the benefit of members.
4. To open sales depots in places selected by the Board of Directors subject to the prior approval of the Registrar.
5. To borrow funds from Government to be utilised for the issue of loan to members for discharge of prior debts to master Weavers contracted prior to the admission into the society.
6. To run dye factory for the benefit of the society members and to dye the yarn of other weavers' cooperative societies also.
7. To buy or acquire land and to build or cause to be built the residential houses for the benefit of the weaver members of the society with necessary amenities.
8. To do such other act, as may be conducive or incidental to the attainment of the Principal object or other objects of the society.

5.7 Liability of the Society:

The liability of the members of the society is limited to the Share Capital subscribe by them.

5.8 Membership Position:

Membership of weavers cooperative is made of individual member and Government. The position of the membership is indicated a mixed picture and trend.

Table 5.1 Membership position

Years	Members	Growth rate	Active Members	Government	Total
2013-14	269	0	97	1	270
2014-15	277	2.97	97	1	278
2015-16	302	9.03	97	1	303
2016-17	299	-0.99	97	1	300
2017-18	293	-2.01	97	1	294
2018-19	293	0.00	97	1	294
2019-20	290	-1.02	97	1	291
2020-21	290	0.00	97	1	291
2021-22	197	-32.07	97	1	198
2022-23	209	6.09	97	1	210
Total	2719	-18.00			
Average	271.9	-1.80			

Source: Compiled from field data

It is revealed from the below table 5.1 that number of members in Gandhiji Weavers Cooperative production and sales Society was high in 2013-14 with 269 members and it has decreased to 209 in the year 2022-23.

5.9 Source of Funds:

The funds of the society comprising of

1. Share capital Subscriptions.
2. Borrowings from the state government, financing bank or other cooperative institutions by the way of loans and advances.
3. Deposits.
4. Entrance fees and other fees.
5. Donations, gifts, grants, subsidies or other benefactions as approved by the registrar.
6. Other miscellaneous receipts.

5.10 Share Capital Position:

The authorised share capital of the society shall be Rs 500000 consisting of 5000 shares of Rs.100 each. The paid-up share capital is made up of individual share capital and government capital.

5.11 Deposits:

The handloom weavers cooperative society collects the deposits in the form of savings Deposits and Thrift deposits, under this member thrift deposits, members saving and security scheme, staff securing deposits, employees Provident fund, Government SSS fund SSS Scheme, HDC members Thrift deposits are collected.

5.12 Borrowings:

The handloom weavers cooperative society borrows loans from the Dindigul District Central Cooperative Bank (DCCB) as cash credit borrow fund from ICDP loan for building repair.

5.13 Reserve Fund:

The reserve fund [R.F] shall belong to the society as a whole and intended to meet unforeseen losses. It shall be indivisible and members shall have any claim to a share in it.

Table 5.2: Source of funds (Rs. in Lakhs)

Year	Share Capital	G.R	Deposit	G.R	Borrowings	G.R	Reserve Fund	G.R	Total
2013-14	10.08	0	23.21	0	29.80	0	0.42	0	63.51
2014-15	11.63	15.38	27.75	19.56	32.43	8.83	0.67	59.52	72.48
2015-16	11.76	1.12	33.51	20.76	35.27	8.76	0.94	40.30	81.48
2016-17	11.25	-4.34	39.49	17.85	40.69	15.37	0.95	1.06	92.38
2017-18	11.22	-0.27	41.91	6.13	39.91	-1.92	0.98	3.16	94.02
2018-19	11.22	0.00	45.11	7.64	34.82	-12.75	0.74	-24.49	91.89
2019-20	11.23	0.09	44.11	-2.22	34.44	-1.09	0.79	6.76	90.57
2020-21	5.23	-53.43	49.60	12.45	16.21	-52.93	0.81	2.53	71.85
2021-22	5.08	-2.87	53.71	8.29	15.21	-6.17	0.86	6.17	74.86
2022-23	5.09	0.20	55.05	2.49	11.99	-21.17	0.93	8.14	73.06
Total	93.79	-44.12	413.45	92.94	290.77	-63.08	8.09	103.16	
Average	9.37	-4.41	41.34	9.29	29.07	-6.30	0.80	10.31	

The table 5.2 shows the details of sources of funds of the society during the study period it was Rs.63.51 lakhs in 2013-14 and it has increased to Rs.73.06 lakhs in 2022-23.

5.14 Working Capital Position:

The Working capital (W.C) consisting of borrowed funds and deposits of the society as given below.

Table 5.3: Working capital position

(Rs in Lakhs)

Year	Working capital	Growth rate
2013-14	53.01	0
2014-15	60.17	13.51
2015-16	68.79	14.33
2016-17	80.18	16.56
2017-18	81.83	2.06
2018-19	79.93	-2.32
2019-20	60.32	-24.53
2020-21	65.81	9.10
2021-22	68.92	4.73
2022-23	67.04	-2.73
Total	686	30.69
Average	68.6	3.06

Source: Compiled from field data

The table 5.3 shows that the details of working capital position of the society during the study period. It was Rs. 53.01 lakhs In 2013-14 and it the increased to Rs. 67.04 lakhs in 2022-23.

5.15 Investment of the society:

Investment performance has improved in the Gandhiji Weavers Cooperative Production and Sales Society. Instead, dividend year after year.

Table 5.4: Investment Position

(Rs. in Lakhs)

Years	SSS Deposits in ADH	G.R	Shares in other cooperatives	G.R	Reserve fund in DCCB	G.R	Fixed Deposits in DCCB	G.R	Total
2013-14	17.03	0	1.98	0	5.70	0	17.79	0	42.50
2014-15	19.83	16.46	1.98	0.00	6.22	9.12	15.88	-10.74	43.91
2015-16	23.79	19.99	1.98	0.00	6.00	-3.54	16.39	3.21	48.16
2016-17	28.16	18.37	1.98	0.00	7.20	20.00	13.45	-17.94	50.79
2017-18	30.62	8.70	1.98	0.00	7.70	6.94	9.60	-28.62	49.90
2018-19	33.16	8.31	1.98	0.00	10.32	34.03	10.28	7.08	55.74
2019-20	31.52	-4.96	2.12	7.07	10.32	0.00	16.03	55.93	59.99
2020-21	34.72	10.15	2.12	0.00	11.97	15.99	18.12	13.04	66.93
2021-22	37.21	7.18	2.12	0.00	11.97	0.00	19.32	6.62	70.62
2022-23	41.10	10.44	2.12	0.00	11.97	0.00	14.77	-23.55	69.96
Total	297.14	94.65	20.36	7.07	89.37	82.54	151.63	5.04	558.50
Average	29.71	9.46	2.03	0.70	8.93	8.25	15.16	0.50	55.85

Source: Compiled from field data

The table 5.4 shows that details of investment position of the society during the study period. It was Rs. 42.50 Lakhs in 2013-14 invested in DCCB and it has increased Rs. 69.96 lakhs in 2022-23.

Business performance of the Society:

5.16 Raw material Purchase:

The Gandhiji Weavers Cooperative Production and Sales Society purchase its raw material from the National Handloom Development Corporation (NHDC).

Raw material as an input

- | | | |
|--------------------|--------------------|-------------------|
| 1. Polyester yarn | 2. China silk | 3. 75 D Art silk |
| 4. 80s cotton yarn | 5. 60s cotton yarn | 6. Kora silk yarn |
| 7. H/F Jari | 8. 2/100 s yarn | 9. 2/100 s yarn |

Table 5.5: Purchase Position

(Rs. in Lakhs)

Year	NHDC (National Handloom Development Corporation)	Growth rate	Open Market purchase	Growth rate	Total
2013-14	157.26	0	39.90	0	197.16
2014-15	213.47	35.74	40.44	1.35	253.91
2015-16	251.22	17.68	47.99	18.67	299.21
2016-17	266.78	6.19	52.87	10.17	319.65
2017-18	191.87	-28.08	33.87	-35.94	225.74
2018-19	43.62	-77.27	36.73	8.44	80.35
2019-20	337.74	674.28	40.86	11.24	378.6
2020-21	257.21	-23.84	31.36	-23.25	288.57
2021-22	319.97	24.40	37.93	20.95	357.9
2022-23	211.07	-34.03	25.09	-33.85	236.16
Total	2250.21	595.08	387.04	-22.21	2637.25
Average	225.02	59.50	38.7	-2.22	263.72

Source: Compiled from field data

The table 5.5 shows that details of Purchase Position of the society during the study period. It was Rs. 197.16 Lakhs in 2013-14 as a total purchased from both the National Handloom Development Corporation and from Open Market. It increased Rs. 236.16 lakhs in 2022-23.

5.17 **Production of finished Goods:**

The Gandhiji Weavers Cooperative Production and Sales Society produced the following output as finished goods.

1. Kora cotton saree
2. cotton saree
3. kota saree
4. soft saree

Sales of Finished Goods:

The finished goods of the Gandhiji Weavers Cooperative Production and Sales Societies 20% of finished product will send to Tamil Nadu Handloom

Weavers' Cooperative Society, (Co-Optex) Cooperative Exhibition, to consumers and also they sell the product to the local retail shop and in open market.

There was substantial amount of rebate given to the society by the Government in wholesaling and retailing operations.

The Co-Optex supply yarns to the handloom weavers' cooperative society where as the society provides 20 percent of its products to the Co-Optex and the rest are sold locally.

The table 5.6 shows that details of Sales Position of the society during the study period. It was Rs. 111.67 lakhs in 2013-14 as a Total Sales both in the Co-Optex sales and open market sales. It decreased Rs. 107.85 lakhs in 2022-23.

Table 5.6: Sales Position

(Rs. in Lakhs)

Years	TNHWCS sales	Growth rate	Sale of Finished Goods	Growth rate	Total
2013-14	22.70	0	88.97	0	111.67
2014-15	10.29	-54.67	106.64	19.86	116.93
2015-16	15.92	54.71	116.12	8.89	132.04
2016-17	2.67	-83.23	107.89	-7.09	110.56
2017-18	24.10	802.62	73.64	-31.75	97.74
2018-19	27.60	14.52	66.18	-10.13	93.78
2019-20	33.99	23.15	75.73	14.43	109.72
2020-21	34.89	2.65	60.97	-19.49	95.86
2021-22	20.68	-40.73	80.96	32.79	101.64
2022-23	21.76	5.22	86.09	6.34	107.85
Total	214.6	724.25	863.19	13.85	1077.79
Average	21.46	72.42	86.31	1.38	107.77

5.18 Loans and Advance:

Money provided by the bank to entities for fulfilling their short term requirement is known as advances are credit facility granted to customers by banks but loan can be secured or unsecured where as advances are generally secured by asset or by guarantee from a security.

Table 5.7: Loans and Advance

(Rs. in Lakhs)

Years	Members Wages advances	G.R	Member Co-Optex SPL cloth loan	G.R	Co-Optex advances	G.R	Total
2013-14	0.97	0	-	-	0.25	0	1.22
2014-15	0.98	1.03	-	-	0.28	12.00	1.26
2015-16	1.28	30.61	-	-	0.44	57.14	1.72
2016-17	0.95	-25.78	-	-	1.11	152.27	2.06
2017-18	0.96	1.05	-	-	0.37	-66.67	1.33
2018-19	0.86	-10.42	0.66	0	0.22	-40.54	1.74
2019-20	1.16	34.88	0.66	0	0.24	9.09	2.06
2020-21	0.72	-37.93	0.66	0	0.20	-16.67	1.58
2021-22	1.16	61.11	0.66	0	0.17	-15.00	1.99
2022-23	1.99	71.55	0.66	0	0.15	-11.76	2.80
Total	11.03	126.11	3.3	0	3.43	79.87	17.76
Average	1.10	12.61	0.66	0	0.34	7.98	1.77

Source: Compiled from field data

5.19 Net Profit Position:

The table below shows whether the Gandhiji Weavers Cooperative Production and Sales Society run in the profit or loss.

Table 5.8: Net Profit Position

(Rs. in Lakhs)

Years	Gross profit	Growth rate	Net profit	Growth rate
2013-14	18.66	0	2.42	0
2014-15	19.70	5.57	3.38	39.67
2015-16	29.84	51.47	4.72	39.64
2016-17	26.76	-10.32	4.79	1.48
2017-18	15.77	-41.07	3.51	-26.72
2018-19	12.79	-18.90	3.67	4.56
2019-20	14.37	12.35	3.98	8.45
2020-21	13.96	-2.85	3.99	0.25
2021-22	17.00	21.78	4.22	5.76
2022-23	16.35	-3.82	0.39	-90.76
Total	185.2	14.21	35.07	-17.66
Average	18.52	1.42	3.50	-1.76

Source: Compiled from field data

The table 5.8 shows the details of Net Profit Position of the society during the study period. It was Rs. 2.42 lakhs in 2013-14 and it has decreased to Rs. 0.39 lakhs in 2022-23.

5.20 Audit Classification:

Table 5.9: Audit Classification

Years	Audit grade
2013-14	“B”
2014-15	“B”
2015-16	“B”
2016-17	“B “
2017-18	“B”
2018-19	“B”
2019-20	“B”
2020-21	“B”
2021-22	“B”
2022-23	“B”

Source: Compiled from field data

6. Findings of the study:

- The average share capital of the society during the study period was 9.37 lakhs.
- The average deposit of the society during the study period was 41.34 lakhs.
- The average Reserve fund of the society during the study period was 0.80 lakhs.
- The average borrowing of the society during the study period was 29.07 lakhs.
- Total working capital position of the society during the study period was Rs 686 lakhs.
- The average investment of the society in other cooperative society during the study period was 2.03 lakhs.
- The average investment of the society as fixed deposit in DCCB during the study period was 15.16 lakhs.
- Total investment position of the society during the study period was Rs 558.50 lakhs.

- The average purchase from NHDC (National Handloom Development Corporation) of the society during the study period was 225.02 lakhs.
- The average purchase from open market of the society during the study period was 38.7 lakhs.
- The total purchase position of the society during the study period was Rs 2637.25 lakhs.
- The average sale to Co-Optex of the society during the study period was 21.46 lakhs.
- The average sale in open market of the society during the study period was Rs 1.38 lakhs.
- The total sales position of the society during the study period was Rs 1077.79 lakhs.
- The average loan given to the members as a members Co-Optex special cloth loan of the society during the study period was 0.66 lakhs.
- The average advance given to the members as a members wages advance of the society during the study period was 1.10 lakhs.
- The average gross profit of the society during the study period was 18.52 lakhs.
- The average net profit of the society during the study period was 3.50 lakhs.
- The total net profit of the society during the study period was Rs 35.07 lakhs.

7. **Suggestions:**

1. To increase the handloom meals and exhibitions.
2. The budget allocation for handloom industry has to be increased.
3. Society has to take steps to increase the strengthening of members.
4. To introduce varieties of cloths like dhotis, salwars, towels, bed sheets etc.,

8. **Conclusion:**

Based on the analysis of The Gandhiji Handloom Weavers Cooperative Production and Sales Society is running in profit for past ten years, this proves their ability and management of the society is going in a positive way. So, we conclude that the society is performing well in the area of production, sales, marketing and profit making.

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Review on Production and Marketing of Mango and Chiku from Amalsad Cooperative Society

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Abstract:

This review paper examines the production and marketing of mango and sapota fruits, covering marketing channels, production practices, pest control, market structure, and performance. It highlights how developing the fruit industry can create job opportunities, especially for farming communities.

Amalsad Cooperative Society offers competitive savings accounts (savings, compulsory deposit, and fixed deposit) with interest rates of 8%–9% per annum, adhering to NABARD guidelines. It is serving 17 villages within a 6 km radius, it provides doorstep services including fertilizers, seeds, insecticides, and a BPCL petrol pump. The society operates two collection centres with fair weighing systems, grading fruits (sapota and mango) into sizes for market dispatch (via rail and road). These are packed and sent to Delhi's trusted trader for efficient marketing.

*Navsari District in Gujarat, with over 100 inches of rainfall and high humidity, has excellent potential for horticulture, particularly mango and sapota. In Amalsad, more than 40 mango varieties thrive, with the 'Kesar' variety contributing over 60% of production. Mango (*Mangifera indica*), known as the “king of fruits,” is rich in vitamins and minerals and plays a significant role in India's fresh fruit exports. It is used extensively in processing, yielding products like pickles, jams, and pulp, which is sold under the common brand name 'Amidhara.' Chiku, or sapot (*Manilkara zapota*), is another key tropical fruit cultivated in multiple Indian states. Ripe chiku is sweet and is often made into halwa and dried products.*

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Farmers receive 75% of the announced price upfront, with the remainder settled at year-end. The society has captured 50% of the local market share, offering higher incentives for larger, better-quality fruits while charging lower commissions than private traders, leading to more stable prices.

Key words:

Amalsad Cooperative Society, Production, Marketing, *Mangifera indica*, *Manilkara zapota*

Introduction:

Mango (*Mangifera indica*) :

Mango is native to India, is one of the world's most important horticultural crops. Key varieties include Alphonso, Kesar, Dashehari, and Langra, with Alphonso known for its aroma, taste, and high vitamin C and β -carotene content (Yadav & Singh, 2017; Tharanathan et. al., 2006). Mangoes are grown in India, Pakistan, Bangladesh, and parts of Asia and Africa (Yadav & Singh, 2017). The tree can reach up to 40 meters and produces fragrant flowers and leaves rich in mangiferin. The fruit, a juicy drupe, matures in 4-5 months, changing colour from green to yellow, orange, or red (Yadav et al., 2018).

Sapota (*Manilkara zapota*) :

Sapota a tropical fruit from the Sapotaceae family, is primarily grown in India's Gujarat, Tamil Nadu, Karnataka, Maharashtra, Andhra Pradesh, and Telangana (Baskar et al., 2020; Milind et al., 2015). It is believed to have originated in Central America and South Mexico (Rekha, 2024; Kumar et al., 2020), it is rich in nutrients, providing 0.4g protein, 1.1g fat, 20g carbohydrates, 5.3g fiber, and essential minerals like calcium, phosphorus, and potassium. Sapota also has medicinal benefits, including anti-inflammatory and digestive support, due to its polyphenols and vitamin C content (Baskar et al., 2020; Milind et al., 2015). The ripening of fruit involves physiological, biochemical, and sensory changes that transform it into a soft, edible state. Ethylene, a plant hormone, plays a crucial role in regulating ripening and senescence, especially in climacteric fruits (Tharanathan et. al., 2006). However, the fruit has a short shelf life due to rapid ripening and perishability (Siddiqui et al., 2014). Climate change impacts agronomic processes, affecting fruit quality and photosynthesis also (Legave et al., 2013).

Amalsad Vibhag Vividh Karyakari Sahkari Khedut Mandali Ltd., Amalsad, Navsari, Gujarat:

Shree Durlabhjikaka, a prominent freedom fighter and former Deputy

Collector under the British Government, resigned his post to join the independence movement. In 1941, he became a founding member of this cooperative society, Amalsad Vibhag Vividh Karyakari Sahakari Mandali Ltd., which is registered under Section 10 of the Bombay Cooperative Act VII of 1925, with registration number 8005.

In 1955 this cooperative society had only 691 members and a profit of Rs. 6,977. Over the years, both membership and profits steadily increased. In 1965, membership had grown to 1,618 with a profit of Rs. 14,319. In 1975, the number of members reached 2,850, and the profit rose to Rs. 65,529. By 1985, membership further increased to 4,816, and profits reached Rs. 1,59,953. In 1995, the membership grew to 8,198, with a profit of Rs. 2,08,384. In 2005, membership slightly decreased to 7,247, but the profit soared to Rs. 4,19,930. In 2015, membership had risen again to 8,161, and profits reached Rs. 7,43,755. In 2024, the society's membership increased to 9,187, with a profit of Rs. 8,75,196, reflecting significant growth and success over the decades.

This review explores the production and marketing of mango and sapota, including marketing channels, production practices, and pest control. It emphasizes the potential of the fruit industry to create job opportunities for farming communities.

Objectives:

1. To enhance mango and sapota production and marketing
2. To support agricultural financial services
3. To boost agricultural productivity
4. To storage and supply chain support
5. To meet daily household needs
6. To promote member welfare and community development

Financial Services of Amalsad Cooperative Society:

1. **Deposits:** Our society encourages farmers to save by offering three types of savings accounts at attractive rates: Savings Account (4% per annum, allowing up to 7 withdrawals per month), Fixed Deposit (7% per annum for one-year terms with half-yearly interest payments), and Compulsory Deposit, which acts as a Provident Fund. We deduct 2% from the farmers' crop income for this deposit, providing 9% interest per annum. Direct deposits are not allowed; funds are credited from the crop account only.

2. **Agricultural Advances:** The society provides agricultural advances from

its own funds, following NABARD guidelines with competitive interest rates of 8% to 9% per annum. The application process is streamlined, allowing for quick approvals—up to ₹25,000 can be sanctioned instantly by the Secretary, while larger amounts are approved by the board within a month. Loans are typically for one year, with approvals valid for three years if repayment history is satisfactory. 2% rebate incentivizes timely repayments, and overdue amounts remain below 1%. If necessary, farmers can roll over their loans for one year, paying only the interest.

3. Consumer Credit: The society also offers consumer credit. Farmer members can access up to 20% of their crop amount as interest-free credit for three months, meeting their grocery needs without external sourcing. Non-farmer members are eligible for consumer credit of ₹500.

Storage Facilities:

Society has own three godowns with capacities of 1,500 MT, 1,000 MT, and 1,500 MT, specifically for the storage of horticultural products.

Other Activities of Amalsad Cooperative Society:

1) Sales of Agricultural Inputs:

- **KSS-Brand Products:** Offers sapota, mango, banana, and elephant foot through a pulling process.
- **Agricultural Inputs:** Provides fertilizers, seeds, insecticides, farming tools, tractors, and medicines to boost productivity.
- **Fertilizer Supply:** Sources fertilizers from reputable companies like IFFCO, KRIBHCO, GNFC, and GSFC.
- **Efficient Fertilizer Usage:** Serves cultivated farms, ensuring optimal fertilizer use, and earns commissions from manufacturers, distributed among members.

2) Sales of Other Consumables:

- **Building Materials:** Supplies cement, cement sheets, and construction steel.
- **Clothing:** Offers affordable sarees and ready-made garments.
- **BPCL Petrol Pump:** Provides petrol, diesel, and lubricants for farmers' needs.
- **Seasonal Items:** Sells firecrackers, kites, and sweets during festivals.

- **Amul Parlour:** Operates a store offering a variety of Amul products.
- 3) **Member Welfare Activities:**
 - Medical Assistance: Provides health check-ups and ambulance services.
 - Community Support: Donates for school buildings and offers disaster relief.
 - Golden Jubilee Fund: Supports agricultural research, soil testing, water analysis, scholarships, and literature.
 - Special Sapota Fund: Promotes sapota cultivation through targeted initiatives.

Agro-Climatic zone of Navsari District:

Navsari district is situated in the southeastern part of Gujarat, along the coastal lowlands of the Purna River. It comprises five talukas: Navsari, Gandevi, Chikhli, Jalalpor, and Vasnda (<https://www.navsari.in/>). Navsari district features various types of soil, including well drained, fertile, sandy loam, medium black soil, and clay, which support the cultivation of mango and sapota horticultural crops.

Navsari district covers 220,458 hectares, with 136,405 hectares dedicated to cultivation. Approximately 89,799 hectares are irrigated, while 46,606 hectares rely on rainfall (<https://navsari.nic.in/agriculture/>). The district is rich in sugarcane fields, sapota plantations, and mango orchards, and it is recognized for its agro and food processing industries, as well as marine-based industries. Notable attractions include the historical site of Dandi and Vansda National Park.

South Gujarat receives 97% of its rainfall during the southwest monsoon, which spans from June to September (weeks 24 to 32). The average annual rainfall in Navsari district is approximately 1,606 mm, spread over 54 rainy days. The region experiences significant variations in bright sunshine hours (BSS), ranging from 0 hours during the monsoon to a peak of 10.7 hours in the summer season. Annual maximum temperatures in Navsari fluctuate between 43.5 °C in the summer and 7.2 °C in the winter. Temperatures typically reach their highest levels in March and April, while the lowest occur in December and January. Relative humidity in Navsari varies significantly throughout the year, ranging from 21.0% to 96.0%. (Kumar et al., 2015).

Climate change (seasonal pattern, excessive rain, flood, high temperature and drought) and its irregularity are causing the major challenges that changing the performance of agriculture including annual and perennial horticulture crops. The rise in temperature would lead to higher respiration rate, alter photosynthesis rate and phenology, shorten the crop duration, days to flowering and fruiting, accelerate fruit maturity, ripening and senescence (Malhotra, 2017).

Production of Mango and Sapota:

Mango and sapota are produced by village farmers registered with the Amalsad Cooperative Society across various talukas in Navsari district, including Kacholi, Kolva, Ancheli, Vasan, Kotha, Luswada, Devdha, Dhamdacha, Mohanpur, Amalsad, Ganghor, Taliyara, Bhasela, Sarikhurad, Kayatalav, and Saribujrang. The mango harvesting season is in May-June, while sapota is harvested in February–April.

Management Practices for Mango and Sapota:

Mango and sapota are planted at a spacing of 10 m x 10 m using simple grafting methods during the months of August and September. Tall trees receive farmyard manure (FYM) and fertilizer at a rate of 50 kg per tree. Overcrowding of branches can lead to reduced fruit production, resulting in poorly colored fruits that are more susceptible to diseases. Additionally, tall trees pose challenges for harvesting, spraying, and pruning. Well- managed orchards require regular annual pruning to maintain an open canopy that allows air and sunlight to penetrate. This practice helps reduce pests and diseases while enhancing fruit colour (Bezu et al., 2015).

In terms of pest management for mangoes, major insect pests include fruit flies, thrips, and termites, while diseases such as powdery mildew and anthracnose are also prevalent. Management strategies involve cultural practices like smoking during flowering and sanitation measures, including the removal of diseased branches and weeding.

For sapota, pests such as the chikoo bud borer, bark-eating caterpillar, and leaf spot, along with wilt and sooty mold, are controlled through pesticide spraying. The total yield of mangoes varies by tree age, fully mature trees (20-65 years) produce 125 kg of mangoes per tree annually, while sapota typically yields an average of 120-150 kg of fruit per tree per year.

The Kalipatti Chikoo variety is a productive and long-living tree that starts bearing fruit relatively early (at 5 years). However, extreme temperatures can

negatively affect the size and appearance of the fruit, such as reducing size and causing a reddish shade colour. With proper care, these trees can produce high yields (up to 150 kg/tree annually at 20 years) and continue to fruit for many decades, making it an excellent choice for long-term fruit production.

Agro-processing of Mango and Sapota:

Farmers transport unripe Mango and Sapota to nearby collection centres organized by the Amalsad Cooperative Society for convenience and cost-effectiveness. Acceptance is based on a first-come, first-served system, where members queue to deliver their produce. Mangoes are graded into three sizes and include five primary varieties: Kesar, Rajapuri, Totapuri Langra and Dasher. Rajapuri and Totapuri, along with other lesser-known varieties, are typically used for pickle production. In recent years, medium and small-sized Kesar mangoes have been processed into pulp at the Gandevi factory on a contract basis. During the mango season, all Federation members meet daily from 8 to 10 PM to review the current situation and devise strategies for effective production and marketing.

The Society sorts and grades sapota in an objective and transparent manner, avoiding conflicts, unlike private traders who rely on visual assessments. Final grading is done into three sizes (extra-large, large, and mixed), as per market demand, using a uniform weighing system applied publicly throughout the day.

Marketing of Mango and Sapota:

The Langra and Dasher varieties are primarily sold in the Delhi and Rajasthan markets, while the largest Kesar mangoes (approximately 52%) are predominantly sold in Delhi and major cities of Gujarat. Rajapuri & Totapuri are sold in big cities of Gujarat. Farmers receive 75% of the announced price immediately, with the remaining balance settled at the end of the season, typically within a month following the harvest.

All products are marketed under the Federation's umbrella. pulp is sold under a common brand name called 'Amidhara'. "Valsad Navsari Jilla Fal Ane Shakbhaji Sahakari Sangh Ltd." (VJFS), established in 1968 under The Gujarat State Co-Op Society Act, is a federal co-operative society with 22 primary co-op members and 45,000 farmers. Based in the horticulture-rich districts of Navsari, Valsad, and Dang, known for Kesar Mangoes, Chikoo, and other produce, VJFS coordinates between farmers and co-ops to minimize spoilage, maximize processing, and ensure fair pricing. Our facility in

Gandevi, Gujarat, operates under ISO 22000:2005, USFDA, and FSSAI standards, supplying high-quality, hygienic products to both domestic and international markets since 2001, with exports to the UK, USA, Canada, Germany, and Gulf countries. Our brand "AMIDHARA" and trademark "VJFS" represent our commitment to excellence in food processing.

The Kalipatti varieties are primarily sold in the Delhi and Jaipur markets, while the Cricket ball and Pilipatti varieties are sold in major cities of Gujarat. Members receive instant payments of up to 86% of the estimated price (after loan deductions), with the remaining balance paid at the end of the season after deducting the Society's charges.

The Society has successfully captured a 50% share of the local mango market and is now offering higher incentive prices for larger sizes and superior varieties. Compared to private traders, the Society charges lower commissions and provides more stable pricing, making it a favourable option for farmers.

Packaging of Mango and Sapota:

After processing, Mango and Sapota are weighed, packed, and loaded onto trucks for dispatch to various markets across India. The Society's large-scale operations utilize a mechanical system that enhances efficiency compared to private traders. Each carton ensures consistency in fruit sizes, with mangoes packaged in sizes of extra large, large, medium, and small (10/20 kg) and sapota in 10 kg cartons without the use of calcium carbide (CaC₂). Calcium carbide, commonly used for artificial ripening, poses serious health risks, including toxicity, burns, and respiratory issues, making it hazardous when misused.

The packaging now employs corrugated boxes, which are lighter and more cost-effective than the previously used wooden boxes. Additionally, a machine for testing the quality of the packaging boxes has been installed to ensure durability and reliability. This approach not only improves the packaging process but also helps the Society establish a strong brand presence in the market.

Transportation:

1. Transportation by Road: The Society coordinates with truck companies through its Federation, leveraging economies of scale. An incentive-disincentive system encourages timely arrivals in Delhi and other markets. The first truck departs between 9:30 and 10:00 AM, reaching Delhi well

before the third morning for further distribution. This mechanical operation costs 45 Rs. per 10 kg.

2. Transportation by Rail: Proximity to the railway station gives the Amalsad Society an advantage, enabling efficient handling of shipments. This results in cost savings, timely deliveries, and quality transportation compared to private traders.

The Society's prices are more stable than those of private traders. While earlier attempts to explore markets like Jaipur were made, Delhi has proven to be the most stable, with 97% of the produce sold there and dispatched to nearby cities. A prominent trader in Delhi has been selected for his large-scale operations, prompt dealings, and transparency, maintaining an annual contract for over 30 years.

The relationship between traders and farmers significantly influences pricing and payment decisions. The Society announces daily prices based on Delhi market rates, ensuring transparency and credibility, while private traders typically charge around 8% commission. In contrast, the Society charges only 3%.

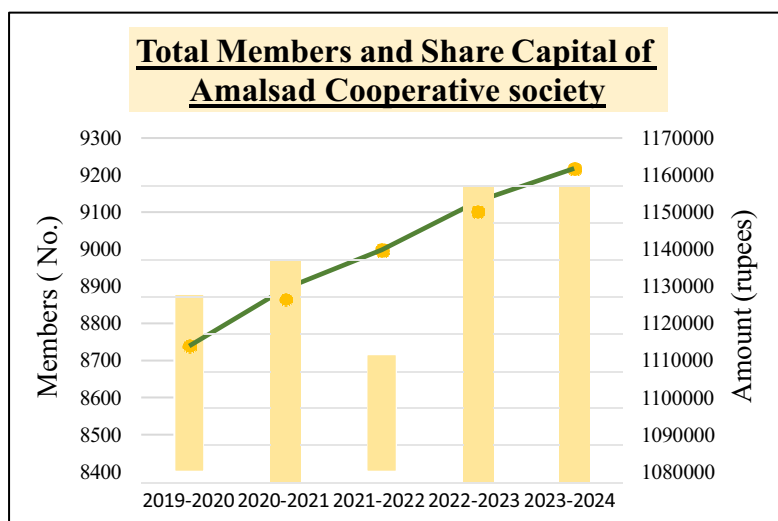
Discussion:

Membership and Share Capital: The Amalsad Cooperative Society has grown to include a total of 44,924 members, comprising both farmers and non-farmers from 2019 to 2024. The total share capital accumulated by all members during this period amounts to ₹56,97,900.

The year-wise data of membership and share capital is detailed in Table 1 and illustrated in Figure 2. This growth reflects the Society's increasing influence and engagement within the community.

Table 1: Total Members and Share Capitals of Amalsad Coop. Society

Year	Total Members (no.)	Share Capital (Rs.)
2019-2020	8,879	11,13,900
2020-2021	9,001	11,29,400
2021-2022	8,717	11,39,800
2022-2023	9,140	11,53,000
2023-2024	9,187	11,61,800

Figure 1: Membership and Share Capital of Amalsad Cooperative Society**Reserve and Other Funds:**

As of 2024, the Amalsad Cooperative Society has accumulated total reserve funds ₹2,60,70,572. In addition, other funds have significantly increased, reaching ₹112,52,38,247 during the same period from 2019 to 2024.

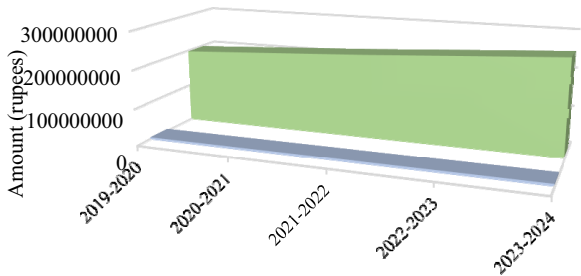
The year-wise data of reserve funds and other funds is provided in Table 2 and visually represented in Figure 3. This data indicates a robust growth in the Society's financial health, showcasing its capacity to build

reserves and manage additional funds effectively. Such growth is crucial for sustaining operations, supporting member initiatives, and enhancing community development projects.

Table 2: Reserve and other Funds of Amalsad Coop. Society

Year	Reserve Fund (Rs.)	Other Funds (Rs.)
2019-2020	47,47,674	19,70,38,378
2020-2021	49,76,012	21,02,80,498
2021-2022	52,08,813	22,37,36,328
2022-2023	54,46,866	23,94,00,908
2023-2024	56,91,207	25,47,82,135

Figure 2: Reserve and other funds of Amalsad Cooperative Society



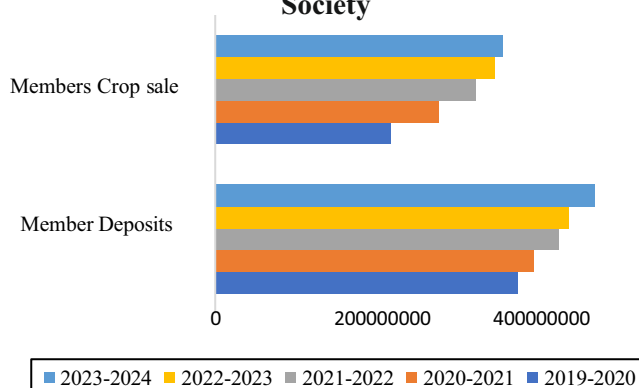
Member Deposits and Crop Sales:

The Amalsad Cooperative Society has recorded total member deposits amounting to ₹213,10,07,849 and total crop sales reaching ₹154,16,96,868 from 2019 to 2024. The year-wise data is detailed in Table 3 and illustrated in Figure 4.

The significant disparity between crop sales and member deposits indicates a positive financial trend among members. This growing difference suggests that members are experiencing favourable economic conditions, reflecting stability and profitability in their agricultural activities. The data indicates that members are not incurring losses, contributing to improved livelihoods and enhanced quality of life within the community. Overall, this trend underscores the effectiveness of the cooperative in supporting its members and promoting sustainable agricultural practices.

Table 3: Members Deposit and Crop sales of Amalsad Coop. Society

Year	Member Deposits (Rs.)	Members Crop sale(Rs.)
2019-2020	38,03,21,618	22,08,91,639
2020-2021	40,00,36,310	28,06,65,483
2021-2022	43,10,41,969	32,75,53,697
2022-2023	44,36,06,922	35,12,34,037
2023-2024	47,60,01,030	36,13,52,012

Figure 3: Members Deposit and Crop sales of Amalsad Cooperative Society**Profit Growth Analysis:**

From 2019 to 2024, the Amalsad Cooperative Society has experienced a progressive increase in total profits, which have reached ₹42,67,575. The year-wise profit data is detailed in Table 4 and visually represented in Figure 5. This consistent growth in profits over the years indicates the Society's effective management and strategic operations. The upward trend suggests that the cooperative is not only enhancing its financial performance but also likely improving the economic conditions of its members. This profitability is essential for reinvesting in community projects, expanding services, and providing better support to members, thereby fostering overall growth and sustainability within the cooperative.

Data analysis of Production of Sapota:

The total production of sapota exhibits significant variation from year to year, primarily influenced by climatic factors that affect the average yield. Despite these fluctuations, the agricultural sector has seen no loss of farmers, largely due to the steadily increasing demand for sapota. This robust demand ensures that farmers remain engaged in sapota cultivation, providing them with a reliable source of income.

As illustrated in Table 5 and figure 6, the production data is presented in increments of 20 kg. Notably, the highest recorded price for sapota during the period of 2022-2023 reached Rs. 411.69 per 20 kg. This substantial price reflects both the quality of the sapota produced and the growing market interest in the fruit.

Table 4: Profit Growth Analysis of Amalsad Cooperative Society

Year	Profit (Rs.)
2019-2020	832372
2020-2021	844767
2021-2022	851388
2022-2023	863852
2023-2024	875196

Figure 4: Profit Growth Analysis of Amalsad Cooperative

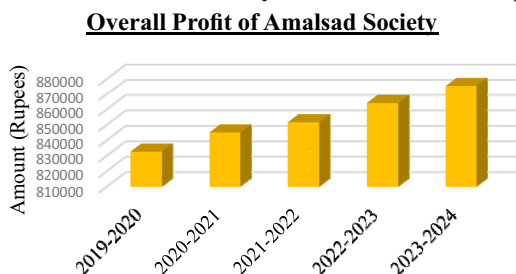
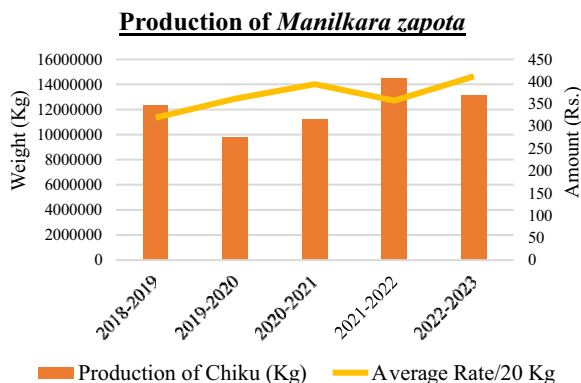


Table 5: Data analysis of production of Sapota

Year	Production of Sapota (Kg)	Average Rate/ 20 Kg (Rs.)
2018-2019	1,23,66,100	319.37
2019-2020	98,08,860	361.3
2020-2021	1,11,74,780	394.03
2021-2022	1,44,77,140	357.21
2022-2023	1,31,08,220	411.69

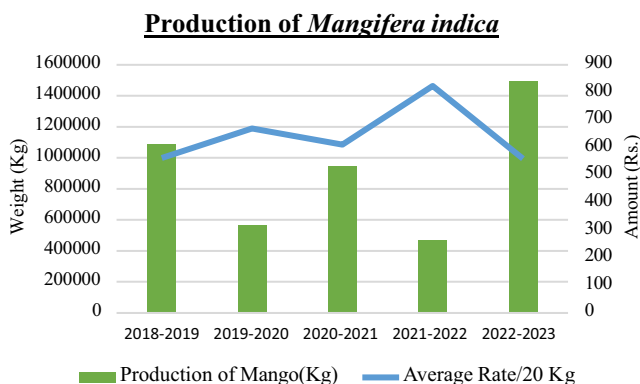
Figure 5: Data analysis of Sapota production

Data Analysis of Mango Production:

Mango production experiences considerable variability due to irregular weather conditions that affect both yield and quality. The highest recorded production of mangoes occurred during the 2022-2023 period, total an impressive 1,494,100 kg. In contrast, the peak price per 20 kg of mango was achieved during the 2021-2022 period, reaching Rs. 823.45. This data is further illustrated in Table 6 and Figure 7, which highlight the fluctuations in both production volume and average pricing. The increase in mango yield and high price can have a profound/great impact on farmers, providing them with greater revenue potential and helping to stabilize their livelihoods.

Table 6: Data analysis of Production of Mango

Year	Production of Mango (Kg)	Average Rate/20 Kg (Rs.)
2018-2019	10,83,500	562
2019-2020	5,63,820	668.99
2020-2021	9,43,620	610.29
2021-2022	4,69,640	823.45
2022-2023	14,94,100	559.63

Figure 6: Data analysis of Mango production

Benefits for Farmers and Sustainable Development:

The data reflects both the challenges and opportunities faced by mango farmers. While irregular weather conditions can pose risks to consistent production, the ability to achieve high yields during favourable years can enhance the financial resilience of farmers. This economic stability encourages farmers to adopt sustainable practices, such as organic farming and efficient irrigation systems, which can mitigate the impacts of climate variability over time.

The Amalsad Cooperative Society has significantly benefitted its members through various financial, agricultural, and welfare initiatives, leading to improved livelihoods and financial stability. Savings Accounts with competitive interest rates (4%-9%) and easy withdrawal terms. Agricultural Advances at 8%-9% interest, with easy access and incentives for timely repayment. Consumer Credit up to 20% of crop sales for grocery needs, interest-free for three months.

Agricultural Support: Access to high-quality agricultural inputs like fertilizers, seeds, and tools, enhancing productivity. Storage facilities for horticultural products, reducing post-harvest losses. The Society ensures a stable demand for fruits like mango and sapota, offering farmers reliable income even during climatic fluctuations.

Welfare and Development: Medical assistance, scholarships, and disaster relief support are provided to members. The Golden Jubilee Fund supports agriculture-related research and soil/water analysis,

enhancing long-term sustainability. The Society's expanding membership (44,924 members) and accumulated capital indicate growing community trust and participation, ensuring the cooperative's future resilience.

Overall, the Society promotes sustainable farming, financial growth, and improved well-being for its members.

Conclusion:

The Amalsad Cooperative Society plays a pivotal role in enhancing the agricultural productivity and economic well-being of farmers in the Navsari district. The production and marketing of mango and sapota across 17 villages, the society not only addresses the needs of its members but also contributes significantly to the local economy.

The Amalsad Cooperative Society is a crucial institution that empowers farmers through financial services, essential resources, and comprehensive support programs. By fostering sustainable agricultural practices and meeting the everyday needs of its members, the society enhances the overall productivity and resilience of the local agricultural sector. As it navigates the challenges posed by climate change, the society's integrated approach ensures continued growth and stability for the farming community in Navsari district.

The production and marketing of mango and sapota by farmers associated with the Amalsad Cooperative Society highlight a structured and efficient approach that significantly benefits the local agricultural community.

The Amalsad Cooperative Society effectively supports mango and sapota production through comprehensive management practices, streamlined processing, and robust marketing strategies. This not only maximizes farmers' profits but also strengthens the local agricultural economy, ensuring a sustainable future for the farming community in Navsari district.

The Amalsad Cooperative Society exemplifies a successful agricultural cooperative model in Gujarat that aligns with global sustainable development goals. From 2019 to 2024, the society has seen significant growth in membership, share capital, and financial reserves, indicating robust community engagement and economic health.

The Amalsad Cooperative Society serves as a model for agricultural cooperatives aiming for sustainable development. By focusing on economic stability, sustainable practices, and community welfare, it contributes to the broader goals of poverty alleviation, food security, and environmental conservation. This cooperative model not only enhances the resilience of farmers in Gujarat but also offers valuable insights for similar initiatives globally, showcasing the potential of agricultural cooperatives in achieving sustainable development goals.

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 - I) <http://amalsadkss.com>,
 - II) <https://www.navsari.in/>
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Sustainable development enhances business resilience through new initiatives of PACS in Karnataka

Divya T.*

Abstract:

Recognizing the need for a dedicated body to streamline the functions of the Cooperation Department, which previously operated under the Ministry of Agriculture, Cooperation and Farmers Welfare, the Government of India (GoI) established the Ministry of Cooperation (MoC) on July 6, 2021 with the slogan “Prosperity Through Cooperation”(Sahakar-se-Samriddhi). Through the MoC, many initiatives have been implemented for the overall development of the cooperative movement in the country.

The impacts of the initiatives implemented for Primary Agricultural Cooperative Societies (PACS) through the MoC in Karnataka include the computerization of PACS, which marks a pivotal step toward enhancing efficiency, transparency and accountability in rural credit delivery systems. With 5,491 PACS selected for computerization and 487 fully computerized by November 2024, this initiative is transforming the cooperative landscape. Coupled with diversification into over 25 business areas and the establishment of multipurpose PACS, these reforms aim to foster sustainable development enhances business resilience in Karnataka's rural economy.

The main objective of this paper is to analyze the impact of PACS computerization on operational efficiency and financial transparency, assess the role of multipurpose PACS in promoting sustainable rural development and evaluate the contribution of new initiatives to business resilience and inclusive growth.

This study employs a mixed-methods approach, combining quantitative analysis of financial performance metrics and qualitative interviews with stakeholders. Data is collected from government reports, PACS financial statements.

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The computerization of PACS has improved record-keeping, reduced operational inefficiencies and enhanced service delivery to members. Multipurpose PACS have diversified income streams, contributing to rural economic stability. However, challenges such as digital literacy and infrastructure gaps remain.

The modernization and diversification of PACS in Karnataka are driving sustainable development enhances business resilience. Continued investment in digital infrastructure, capacity building and policy support is essential for maximizing these initiatives long-term benefits.

Keywords:

Primary Agricultural Cooperative Societies (PACS), Computerization, Model Bye-laws, Self Help Groups

1. Introduction:

The cooperative movement in India has a history spanning over 120 years. It officially began with the establishment of the first cooperative society in 1905 by Sri Siddana Gouda Sanna Ramanagara Gouda Patil in Kanaginahal village, Gadag district. Karnataka holds the distinction of being the pioneer in India's Cooperative movement.

Before the inception of the cooperative movement in India, during the British colonial period and later after independence, the government formed several committees related to cooperation. These committees played a significant role in introducing radical changes, formulating policies and strengthening the cooperative sector. They addressed various challenges and made recommendations to reform and improve the sector. Additionally, the cooperative sector was prioritized in the five-year plans implemented after independence, which helped to establish deep roots across the country.

With such a rich history, the cooperative sector in India was managed by the Ministry of Agriculture, Cooperation and Farmers' Welfare until 2021. Recognizing the sector's critical role in rural development, particularly in areas where banking services are inaccessible and its contribution to the economic and social development of the country, the government decided to create a separate Ministry of Cooperation (MoC). Through a gazette notification dated 06th July 2021, the government established the new ministry under the slogan "Sahakar-se-Samriddhi" and transferred all responsibilities related to the cooperative sector to it. Sri Amit Shah is the first

Minister of Cooperation in the newly formed MoC. In the first budget presented after the formation of the MoC, a budget of Rs.900 crores was allocated for the cooperative sector.

The Ministry aims to strengthen the cooperative movement by providing a dedicated administrative, legal and policy framework. It focuses on making cooperatives a grassroots, people-based movement and developing a cooperative economic model built on responsibility. Its main activities include simplifying business processes for cooperatives, supporting Multi-State Co-operative Societies, enhancing transparency, modernization and computerization and promoting competitive cooperatives.

2. Objectives of the Study:

This paper highlights the contribution of PACS to economic sustainability enhances business resilience through the new initiatives of the MoC, which have diversified them into multipurpose cooperatives, including fertilizer and LPG distribution, CSC services and grain procurement. It also emphasizes the effective role of computerization initiatives in enhancing operational transparency, accountability and efficiency within PACS. The initiatives implemented for PACS contribute to sustainable rural development by driving socio-economic impacts, such as financial inclusion, agricultural support, women's empowerment and the achievement of food security. The case study of the Rythara Seva Sahakara Sangha Ni., (Farmers Service Cooperative Society Ltd.) in Singanayakanahalli, Karnataka, illustrates how sustainable development enhances business resilience in PACS can be achieved through the implementation of new initiatives introduced by the MoC for PACS.

3. Methodology:

The study is based on primary and secondary data obtained from the official website of the MoC, press releases, news reports, professional articles, magazines and other reliable internet resources. A case study of the Rythara Seva Sahakara Sangha Ni., Singanayakanahalli, highlights its outstanding performance in effectively implementing government initiatives. The cooperative selected for the case study is a 49-year-old PACS that is functioning well, making it a valuable example for studying the implementation of new initiatives introduced by the MoC. This case study report was prepared based on a visit to the cooperative and the collection of relevant information, along with additional details obtained from the organization's official website, as well as interviews and discussions with

cooperative staff. Similarly, opinions were gathered from cooperative members through questionnaires. The obtained data was studied, classified, analyzed and processed and a research paper was prepared.

4. Sustainable development enhances business resilience through new initiatives of PACS in Karnataka:

The MoC has implemented 56 initiatives across 11 different areas within the cooperation sector. This research paper evaluates how these initiatives have been implemented in Karnataka and their impact.

The transformation of PACS in Karnataka through computerization and diversification into multipurpose cooperative societies is driving sustainable development enhances business resilience. By enhancing operational efficiency, transparency and accountability, PACS are improving rural credit delivery and financial inclusion. Diversifying into activities like dairy, fisheries, grain storage and LPG distribution reduces economic dependency on single income sources, fostering resilience. Additionally, initiatives like decentralized grain storage, CSCs for digital services, FPOs, solar pump installations and rural infrastructure enhancement are promoting inclusive growth, environmental sustainability and community empowerment, thereby strengthening Karnataka's rural economy.

4.1. New initiatives by the MoC in Karnataka are driving sustainable growth enhances business resilience by transforming PACS into transparent, empowered and economically vibrant cooperatives. The details are below:

➤ The computerization of PACS in Karnataka is a significant initiative aimed at enhancing efficiency, transparency and accountability in rural credit delivery systems. As of November 2024, the implementation status is as follows:

- ❖ Total PACS:6040
- ❖ PACS Selected for Computerization:5491
- ❖ PACS Tendered for Hardware:5491
- ❖ Digitization of Records Completed:4046
- ❖ PACS Fully Computerized:487
- ❖ PACS Yet to Be Onboarded on ERP:5,004
- ❖ The details, including the funds allocated and utilized during the last three years in Karnataka, are as follows:

Sl. No.	Year	Details	Amount (Rs. In Crores)
1	FY 2022-23	Amount allocated	40.25
		Amount released	40.25
		Amount utilized	0
2	FY 2023-24	Amount allocated	61.58
		Amount released	15.39
		Amount utilized	36.67
3	FY 2024-25	Amount allocated	21.17
		Amount released	0
		Amount utilized	1.21

❖ In Karnataka, the district-wise distribution of PACS selected for computerization includes - Belgaum:1156, Vijayapura:266 , Bagalkot:265, Tumkur:230, Mandya:227

- Adoption of Model Bye-laws for 6,040 PACS in Karnataka is underway, along with efforts to transform them into multipurpose cooperative societies. This initiative aims to diversify PACS activities into more than 25 business areas, including dairy, fisheries, food grain storage, and fuel distribution.
- The establishment of new multipurpose PACS in Karnataka is underway in uncovered panchayats/villages, leveraging various existing schemes. This initiative aims to promote inclusive growth and strengthen the cooperative framework.
- Karnataka has identified 32 PACS to participate in the World's Largest Decentralized Grain Storage Plan in the cooperative sector pilot project. One notable example is the "Primary Agricultural Cooperative Federation Limited" in Ekamba, Bidar district, which has constructed a godown with a storage capacity of 1,000 metric tons (MT).
- As of November 2024, Karnataka has 1235 PACS operating as CSCs, offering over 300 e-services to rural citizens, including banking, insurance, Aadhaar enrolment and updation, health services and legal assistance.
- As of June 2024, Karnataka had registered 336 FPOs under the Central Sector Scheme for the Formation and Promotion of 10,000 Farmer Producer Organizations.

- The state's robust framework for promoting FPOs suggests a conducive environment for the establishment and growth of Fish Farmer Producer Organization (FFPO).
- PACS as LPG distributors in Karnataka state's 100% LPG penetration and the pivotal role of PACS in rural infrastructure suggest that this initiative could further enhance LPG distribution, particularly in remote and rural regions.
- As of November 2024, Karnataka has made notable progress under the PM-KUSUM Scheme at PACS level, particularly in Component B, which focuses on the installation of standalone solar pumps.
- In 2024, Karnataka made significant strides in implementing the MoC initiative to utilize PACS as fertilizer distribution centers. The Karnataka State Co-operative Marketing Federation Ltd., (KSCMF) has been pivotal in this endeavor. With 40 branch offices and 133 godowns, KSCMF has facilitated the wholesale and retail distribution of agricultural inputs, including fertilizers, pesticides, seeds and implements, thereby strengthening the cooperative framework in the state.
- In the White Revolution 2.0 initiatives, Karnataka has a robust dairy cooperative system, notably the Karnataka Milk Federation (KMF), which markets products under the Nandini brand. KMF operates in almost every district, collecting milk from its member farmers, processing it and selling it in the market.
- As of March 31, 2024, Karnataka reported 49.04 lakh active Kisan Credit Cards (KCCs). In the 2023-24 budget, the Karnataka government introduced the 'Bhoo Siri' scheme, providing an additional subsidy of Rs.10,000 to KCC holders. Additionally, the 'Jeevan Jyothi Vima Yojane' was implemented to offer life insurance coverage to small and marginal farmers, further supporting the agricultural community in Karnataka.
- Given Karnataka's substantial number of cooperative societies 6040 PACS, 15275 Dairy Cooperative Societies and 636 Fishery Cooperative Societies implementing Micro-ATMs to Bank Mitra Cooperative Societies could significantly improve financial inclusion. By providing Micro-ATMs to these societies, rural populations in Karnataka would gain access to essential banking services, including cash withdrawals, deposits and fund transfers, without the need to travel to urban centers.

- As of December 2024, a total of 286 PACS from 25 states and Union Territories, including Karnataka, have applied to establish retail petrol and diesel outlets. The overall national figures indicate a significant interest from PACS across various states, including Karnataka.
- In 2024, A total of 109 PACS from five states, including Karnataka, have consented to convert their Bulk Consumer Petrol Pumps into retail outlets. Out of these, 45 PACS have received Letters of Intent (LoI) from Oil Marketing Companies.
- The national effort includes more than 2,690 PACS across India including Karnataka receiving initial approval to establish Jan Aushadhi Kendras, with 687 such Kendras already operational within PACS as of November 2024.
- In Karnataka, PMKSK initiative has been implemented through the computerization of PACS, enabling them to offer a broader range of services to farmers. Through the PMKSK initiative, Karnataka is working towards strengthening its PACS, thereby improving the livelihoods of farmers and promoting agricultural prosperity in the state.
- As of November 2024, 1,227 PACS across 13 states and union territories, including Karnataka, have been identified for managing the O&M of PWS schemes at the Panchayat or village level. In Karnataka, rural drinking water supply schemes are classified as multi-village or single-village, with their management governed by the state's Operation and Maintenance Policy.
- The implementation of relief for cooperative societies under the Income Tax Act in Karnataka has strengthened the cooperative sector, which stands to benefit substantially from these reforms. For instance, Karnataka's dairy cooperative, the Karnataka Milk Federation (KMF), is one of the largest in the country and would benefit from the clarifications under Section 269ST, facilitating smoother financial operations. Additionally, the reduction in surcharge and MAT rates directly enhances the profitability of cooperative societies in Karnataka, enabling them to reinvest savings into community development and member welfare.

In addition to the initiatives implemented for PACS, Karnataka is also benefiting from initiatives such as strengthening urban and rural cooperative banks, reviving cooperative sugar mills, establishing three new multi-state cooperative societies at the national level, leveraging information technology

for 'ease of doing business,' expanding the National Cooperative Development Corporation (NCDC), capacity building in cooperatives, introducing the New National Cooperation Policy (NCP) and the New National Cooperative Database (NCD) and including cooperative societies as 'buyers' on the GeM Portal. These initiatives are playing a crucial role in achieving sustainable development enhances business resilience through cooperatives in Karnataka.

5. Case Study and Analysis : Rythara Seva Sahakara Sangha Ni., (Farmers Service Cooperative Society Ltd.), Singanayakanahalli:

Rythara Seva Sahakara Sangha Ni., Singanayakanahalli is a primary agricultural cooperative society that plays a significant role in agriculture, rural development and local community development, along with the empowerment of farmers and women. The initiatives implemented by the cooperative through the MoC and the corresponding study report on their implementation are as follows:

5.1. History of the Society: Rythara Seva Sahakara Sangha Ni., Singanayakanahalli is one such societies sponsored by the Syndicate Bank during 1976. 9 Weak Societies amalgamated to Singnaykanahally Society. Accordingly a comprehensive survey is done in 48 villages to identify the members and registered them as members of the society. The Society is covering 1710 Hectares of area the jurisdiction of the society. The cooperative has six branches located in Singanayakanahalli, Yelahanka, Rajanukunte, Chikkabettahalli, Kogilu and Marasandra. These branches cater to the needs of members by providing substantial financial assistance and prompt services. The society is committed to realize "Dream of empowering villages and socio-economic upliftment of poor is possible only by the Cooperatives".

5.2. Details of the Board of Directors and Staff: The cooperative's Board of Directors consists of 13 elected members and one representative from DCC Bank. The cooperative also has a total of 41 staff members, distributed as follows: H.O.-10, Branches-Singanayakanahalli-9, Yelahanka-6, Rajakunte-5, Chikkabettahalli-3, Kogilu-4 and Marasandra-4.

5.3. Area of Operation: The cooperative operates across 1,710 hectares in 48 villages of Bangalore North Taluk.

5.4. Main Objectives of the Society:

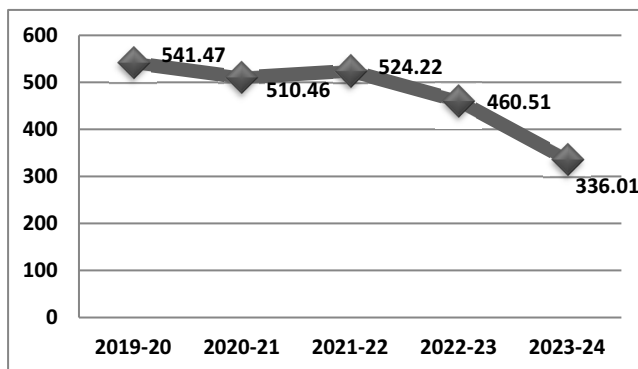
1. The cooperative aims to empower farmers and rural communities by providing essential services such as subsidized agricultural inputs, crop loans and health insurance.
2. It operates digitalized systems for efficient management and supports food security, self-help groups and women's empowerment programs.
3. Additionally, it plays a vital role in rural development by facilitating access to government subsidies and fostering agricultural growth through various initiatives.

5.5. Findings:

- The cooperative currently operates using cloud-based smart banking software, which is fully digitalized and enables nearly paperless operations across its six branches, including the head office. It functions on par with a district-level cooperative bank and the implementation of this software has significantly reduced the overall workload. An internal audit is conducted every month to review transactions and records. Additionally, the cooperative is in the process of adopting the ERP software implemented by the MoC.
- The cooperative operates Sales Centers at 10 locations: Singanayakanahalli, Yelahanka, Rajanukunte, Chikkabettahalli, Kogilu, Marasandra, Gantiganahalli, Arakere, Suradenapura and Ramagondanahalli. These centers function as fertilizer distribution hubs, providing farmers with essential agricultural inputs such as fertilizers, chemicals, cakes, urea and crop-related pesticides. The details of trading sales are as follows:

Table 1: Details of Trading Sales

Year	Amount (Rs. In Lakhs)
2019-20	541.47
2020-21	510.46
2021-22	524.22
2022-23	460.51
2023-24	336.01

Figure 1: Trading Sales (Amount-Rs. In Lakhs)

above Table No.1 and Figure No.1 shows that trading sales have declined due to a partial decrease in agricultural activity, which has been impacted by urbanization in recent times.

- The cooperative is responsible for distributing food grains under the government's free distribution scheme to BPL cardholders through the Public Distribution System (PDS) at 10-12 designated points. So far, free PDS supplies have been distributed to 8,500 cardholders. The cooperative plays a vital role in ensuring food security by carrying out this distribution voluntarily, without any expectation of reward.
- The cooperative has six of its own godowns, each with a storage capacity of 100 MT, located at its six branch offices. These godowns are used to store fertilizers and agricultural inputs, which are sold to farmer members at subsidized rates. Additionally, they are utilized for storing food grains distributed to BPL cardholders. This initiative has contributed to agriculture and rural development, farmer empowerment and food security. Furthermore, there are plans to establish cold storage facilities to preserve crops grown by farmers.
- The cooperative provides the Yeshaswini health insurance facility to its members, playing a crucial role in their healthcare support. Under this scheme, 2,000 members will be registered in the year 2023-24.
- The cooperative rents tractors and agricultural equipment to farmer members at discounted rates to support their agricultural activities.
- The cooperative provides crop loans of up to Rs.5 lakhs at zero interest to farmer members who own land and agricultural medium-term loans of up to Rs.15 lakhs at an interest rate of 3%. Additionally, it offers various other

loan facilities, including pump set loans, tractor purchase loans, mortgage loans, personal loans, jewellery loans, mid-term loans, dairy loans, land development loans, grape crop loans and loans for purchasing household appliances or solar energy equipment. Through these diverse loan offerings, the cooperative plays a crucial role in the economic empowerment of its members.

- The Bangalore District Central Cooperative Bank has issued a circular regarding the loan limits for various crops for 2024-25. These loan limits were determined at the state-level technical experts' meeting for the year 2024-25 and the cooperative is providing crop loans accordingly. The cooperative disburses loans as per the Range of Scale of Finance set for working capital provisions in sectors such as agricultural and horticultural crops, dairy farming, sheep/goat rearing, poultry, aquaculture (both cultured and captured fish), pig farming, rabbit farming, animal husbandry and fisheries. (Details of the total loans disbursed by the cooperative are provided separately.)
- The cooperative provides training to farmer members in collaboration with the Agriculture Department, Horticulture Department and various fertilizer and pesticide companies. Additionally, it creates awareness among members to help them effectively utilize government schemes related to agriculture.
- The cooperative has organized the following extension programs like Failed Well Re-energization Programme, Grape & Vegetable Crops Seminar, Animal Health Checkup Camps, Solar Water Heater Exhibition & Training Programme, Health & Eye Camp and Cardiac Camp.
- As part of its CSC operations, the cooperative is currently distributing e-stamping papers to customers through its branches.
- The cooperative functions as a Pradhan Mantri Kisan Samriddhi Kendra (PMKSK) and sells agricultural fertilizers.
- The cooperative has obtained a drone from IFFCO, which its members can rent at a discounted rate for spraying fertilizers on their crops, particularly grape crops, thereby improving agricultural efficiency and diversifying the cooperative's income.
- The cooperative has established 680 Self-Help Groups (SHGs), providing self-employment loans with a 98% repayment rate. It has organized 380

SHGs with loans of Rs.3–5 lakh each, benefiting nearly 400 women through government schemes like Udyogini and Asare. Additionally, in partnership with the Vishwavani Foundation, it offers six-month tailoring training, along with craft training and provides financial assistance at a 4% interest subsidy to support over 500 members. The distribution of deposits held by the cooperative through SHG and the loans disbursed to these groups are as follows:

Table 2:Details of SHG Deposits and Loans			
No. of SHG	675	SHG Loans Details	
Deposit of SHG	70.31 (Rs. In lakhs)		
		Year	Amount (Rs. In Lakhs)
		2019-20	341.30
		2020-21	227.95
		2021-22	113.92
		2022-23	144.20
		2023-24	131.25

- The cooperative has constructed a community hall, which is rented out for wedding ceremonies, offering members a 20% discount.
- With the aim of encouragement, the society honors SSLC and PUC toppers among members' children with the “Prathibha Puraskara” award.

5.6. The details and analysis of the cooperative's five-year financial status, along with the accompanying charts, are as follows:

A. Membership & Members Share Capital: The cooperative has 7,170 regular members, 26,000 nominal members and 1,000 associate members.

Table 3:Details of Membership and Members Share Capital

Table 3:Details of Membership and Members Share Capital					
Sl. No.	Year	Membership		Members Share Capital (Rupees in Lakhs)	
		Numbers	Growth %	Amount (Rs.)	Growth %
1	2019-20	6897	0.44%	387.65	27.23%
2	2020-21	6864	-0.48%	364.07	-6.08%
3	2021-22	6559	-4.45%	450.86	23.85%
4	2022-23	6560	0.02%	463.05	2.70%
5	2023-24	7170	9.30%	569.17	22.92%

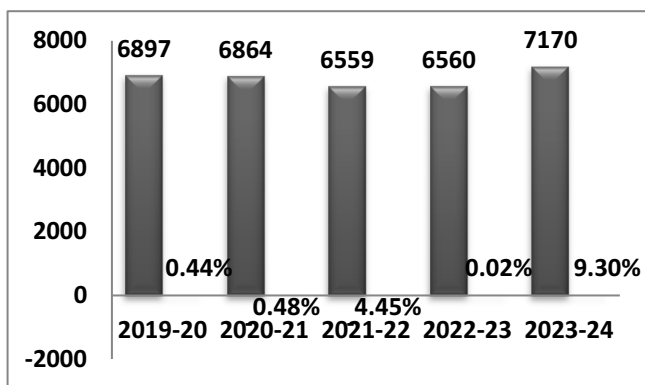
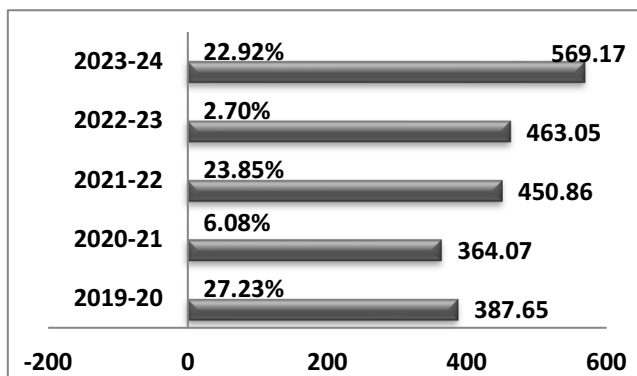
Figure 2: Membership**Figure 3: Members Share Capital (Rs. in lakhs)**

Table No.3 and Figures No.2 and 3 above show that membership numbers fluctuated over the years, with a decline in 2021-22 (6,559 members) due to member deaths, particularly during the pandemic, followed by a strong recovery in 2023-24 (7,170 members), reflecting successful initiatives. After minor growth in 2019-20, a slight decline in 2020-21 and a sharp drop in 2021-22, membership stabilized in 2022-23 and saw a significant rebound in 2023-24. The member share capital has generally increased, despite fluctuations, with the highest recorded in 2023-24, indicating strong member confidence. To sustain growth, focus on retention strategies, addressing the 2021-22 decline and minimizing fluctuations will be crucial for long-term success.

Table 4: Funds, Deposits and Profit

Sl. No.	Year	Funds		Deposits		Profit	
		Amount (Rs.)	Growth %	Amount (Rs.)	Growth %	Amount (Rs.)	Growth %
		(Rs. in Lakhs)					
1	2019-20	2595.69	7.97%	14086.6	-0.24%	+362.58	38.96%
2	2020-21	3151.11	21.40%	15893.98	12.83%	+296.18	-18.32%
3	2021-22	3412.78	8.30%	17653.15	11.07%	+260.28	-12.12%
4	2022-23	3729.55	9.29%	17777.93	0.71%	+526.74	102.38%
5	2023-24	4136.09	10.90%	19094.22	7.40%	+612.81	16.34%

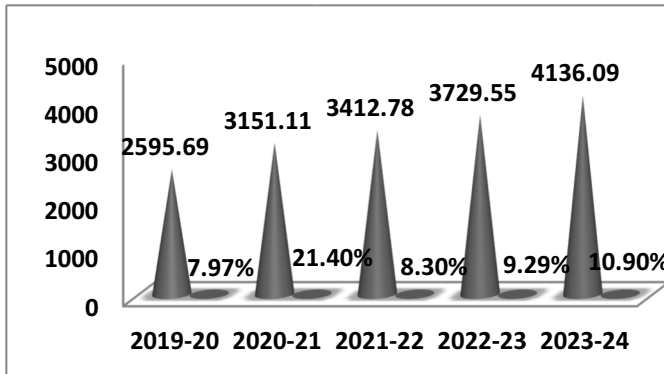
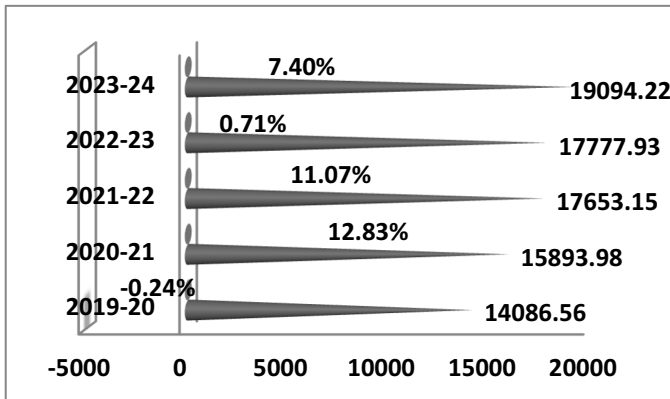
Figure 4: Funds (Rupees in Lakhs)**Figure 5: Deposits (Rupees in Lakhs)**

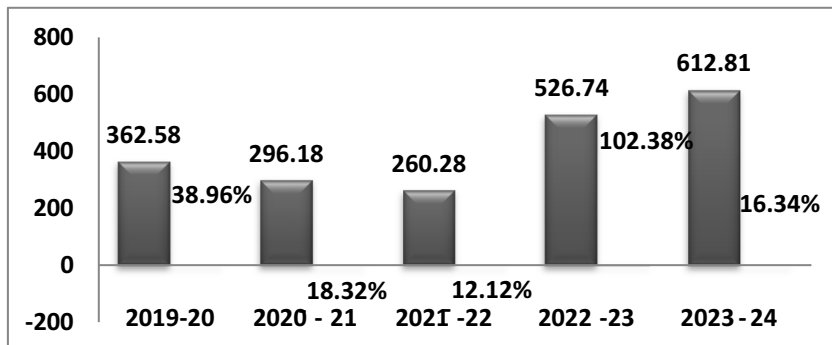
Figure 6: Profit & Loss (Rupees in Lakhs)

Table No.4 and Figures No.4, 5 and 6 above shows that the cooperative experienced consistent positive growth in funds, deposits, and profits from 2019 to 2024, despite some fluctuations. Funds grew steadily, with a significant spike in 2020-21 (21.40%), reflecting post-pandemic recovery, though recent growth rates (2022-24) have moderated, suggesting stability. Deposits initially dipped in 2019-20 (-0.24%) but rebounded strongly in 2020-21 (12.83%) and continued to grow steadily at 7.40% in 2023-24. Profit growth fluctuated, with a sharp decline in 2020-21 and 2021-22 due to COVID-related disruptions, but recovered strongly in 2022-23 (102.38%) and remained sustainable at 16.34% in 2023-24, indicating improved efficiency. Overall, the cooperative has demonstrated financial resilience, with moderate, stable growth signaling a positive long-term outlook.

C. Loans-Members Loans-Disbursements, Loans outstanding-Members:

Table 5:Details of Loans (Rupees in Lakhs)				
Sl. No.	Year	Members Loans-Dis	Loans outstanding- Members	Loans Recovery %
		Amount (Rs.)		
1	2019-20	7507.68	7542.39	75%
2	2020-21	7884.42	7507.68	81%
3	2021-22	9686.63	10950.45	84.49%
4	2022-23	12042.14	12189.77	78.34%
5	2023-24	14814.83	14780.66	79.65%

**Figure 7: Members Loans - Dis, Loans outstanding-Members
(Rupees in Lakhs)**

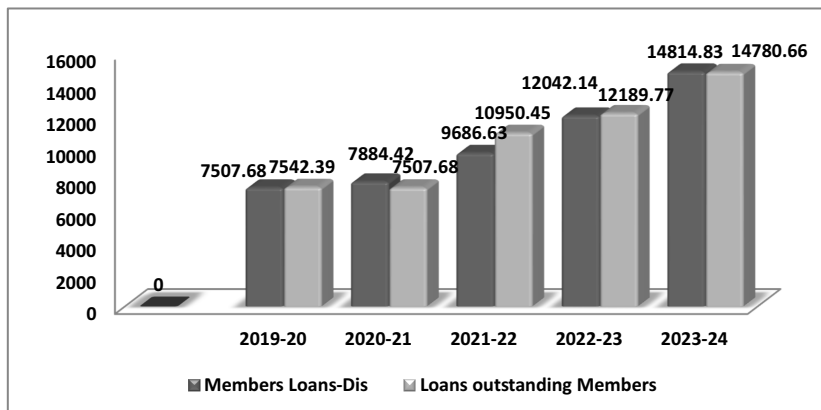


Table No.5 and Figure No.7 above show that loan disbursements grew steadily from Rs.7,507.68 lakhs in 2019-20 to Rs.14,814.83 lakhs in 2023-24, with a significant increase of Rs.2,772.69 lakhs between 2022-23 and 2023-24, reflecting strong lending expansion. Over the five-year period, the total increase was Rs.7,307.15 lakhs, with an average annual growth of Rs.1,461.43 lakhs. Outstanding loans fluctuated, surpassing disbursed amounts in 2021-22, but stabilizing below disbursements in 2023-24, signaling balanced disbursement and recovery. Loan recovery rates, which peaked at 84.49% in 2021-22, declined to 79.65% in 2023-24, reflecting challenges in recovery efforts. The increasing loan disbursements combined with recovery rates below 85% pose risks to financial stability. To ensure long-term sustainability, stricter loan recovery strategies, improved repayment rates (ideally above 80%) and possibly revising loan terms are recommended.

D. Investment Details:

Table 6: Details of Investment

Year	Canara Bank	Other Banks & Companies	Total
	(Rs. In Lakhs)		
2019-20	5095.32	2059.82	6281.84
2020-21	6000.45	2984.42	7155.15
2021-22	4647.11	4750.37	9397.48
2022-23	4283.10	5162.46	9445.56
2023-24	4521.55	4609	9130.55

Table No.6 above shows that total investment experienced steady growth, peaking in 2022-23 before slightly declining in 2023-24. Canara Bank's investment peaked in 2020-21 but declined in the following years, with a minor recovery in 2023-24. In contrast, investments from other banks and companies grew consistently, reaching a peak in 2022-23 before a slight dip. This shift towards greater diversification in investment sources has reduced reliance on Canara Bank, enhancing financial stability and reducing risk. The 2023-24 decline may indicate a market correction. Policymakers should encourage multi-source funding, and further analysis is needed to understand the long-term impact.

E. Subsidies:

The cooperative provided over Rs.5 Crores in interest subsidies to farmers through the State Government, including agricultural loans, the purchase of agricultural equipment and loans to women of SHGs for self-employment, all of which play a crucial role in local community development.

Table 7: Details of Subsidies

Year	Government Subsidies	Members Subsidy-Govt
	Amount (Rs. In Lakhs)	
2019-20	Rs.22.06	Rs.91.83
2020-21	Rs.37.90	Rs.95.33
2021-22	Rs.4.80	Rs.33.07
2022-23	Rs.5.32	Rs.38.15
2023-24	Rs.5.19	Rs.46.72

5.7. Awards and Recognitions:

The cooperative has received several accolades, including the “Best Performing Co-operative Society” Award, the “Best Women President” in Co-operative Societies (twice), “Stri Rathna,” “Kithura Rani Channamma” Award and “Sahakara Rathna” Award, as well as the “Best Secretary” and Cooperative Excellence Awards.

5.8. Members' Opinions: The following is a summary of the opinions expressed by the cooperative members about the organization:

As members of the Rythara Seva Sahakara Sangha, Singanayakanahalli, we deeply appreciate the cooperative's transformative impact through financial support, agricultural development, women's empowerment and welfare initiatives. By offering low-interest loans, government schemes, training, healthcare (like the Yeshaswini Health Scheme) and educational support, the

cooperative has uplifted rural communities. Its commitment to modernization, self-sufficiency and social responsibility reflects its dedication to our collective growth. Functioning effectively and collaboratively, the cooperative provides excellent services, including loans for self-employment and remains a farmer-friendly institution that fosters unity and progress.

The analysis of opinions collected from the cooperative members is as follows:

Member Profile of Respondents (N=25)

Table 8: Analysis of members' opinions

Variables	Numbers of Members	Percentage
Gender		
Male	13	52%
Female	12	48%
Age		
18-25	2	8%
26-35	9	36%
36-50	5	20%
25 and above	9	36%
Educational Qualification		
Illiterate	8	32%
Primary Education	5	20%
Secondary Education	5	20%
Higher Secondary Education	3	12%
Graduate and above	3	12%
Other	1	4%
How much land do you own		
Less than 1 acre	2	8%
1-3 acres	14	56%
4-7 acres	6	24%
More than 7 acres	3	12%
Member Per Annum Income (approx)		
Less than Rs.1 lakh	15	60%
Rs.1-3 lakh	6	24%
Rs.4-5 lakh	4	16%

Have you taken any loan from a cooperative for	25	
self-employment	7	28%
starting a business	5	20%
purchase of livestock	3	12%
agriculture related purposes	10	40%
Has Yashaswini health insurance facility been availed from the cooperative	25	100%
If they are self-help groups, how has the cooperative helped them to become empowered	25	100%
start their own business	7	28%
raise livestock purchase sewing machines	8	32%
undertake their own employment	10	40%

Table No.8 above indicates that it summarizes the responses of 25 participants, categorized by various demographic variables such as gender, age, educational qualification, land ownership, income and their engagement with cooperative initiatives. It also includes responses regarding the role of cooperatives in empowering individuals, such as through loans and self-help groups.

6. **Conclusion:**

The transformative initiatives spearheaded by the MoC have played a pivotal role in fortifying Karnataka's cooperative sector, particularly through digitalization, financial reforms and diversification. The computerization of PACS, tax relief measures and expansion of cooperative banking services have notably enhanced transparency, financial sustainability and access to rural credit. Looking ahead, the continued modernization of systems, effective governance reforms and targeted financial support will be essential to securing long-term resilience and fostering inclusive growth within the state's cooperative sector.

The Rythara Seva Sahakara Sangha, Singanayakanahalli, has exemplified sustainable growth and resilience through its strategic focus on digitalization,

empowerment and diversification. By adopting cloud-based banking software, the cooperative has enhanced efficiency, transparency and accessibility for its members. Its diversified financial services including zero-interest crop loans, self-employment funding for SHGs and modernized agricultural support have significantly empowered farmers and women, leading to improved rural livelihoods. The cooperative's role in food security, healthcare support and extension programs highlights its deep commitment to community welfare. Moving forward, further diversification through LPG and fuel distribution, expanded CSC services and cold storage infrastructure will strengthen its financial stability and socio-economic impact. Strengthening loan recovery mechanisms and optimizing digital services will ensure long-term sustainability, enabling the cooperative to remain a model for rural development and inclusive economic growth.

7. **Suggestions:**

Suggested the following measures for the effective implementation of initiatives to enhance PACS transparency, empowerment, and economic viability through the establishment of a separate MoC:

- By adopting the model bye-laws, the cooperative can undertake over 25 business activities, including dairy, food grain procurement and fuel distribution. Focusing on and implementing these initiatives more effectively will help diversify the cooperative's operations.
- The cooperative is already operating under a paperless banking model by adopting a computerized system and steps are being taken to implement the ERP software introduced by the MoC, which will be adopted as soon as possible.
- Measures are being taken to enable grain storage, including cold storage, to store produce grown by farmer members within the existing godown system of the cooperative.
- PACS are permitted to operate as common service centers (CSCs). Under this scheme, over 900 facilities can be provided. The cooperative has already adopted the e-stamping system and similarly, can offer services such as Aadhaar services, education services, PM welfare schemes, tours and travel, financial inclusion services, health services, utility bill payments, skill development, and more. It has been suggested to implement these services through the cooperative.
- The next action plan aims to distribute LPG through the cooperative. By

implementing this initiative as soon as possible, the cooperative will be able to effectively supply LPG to the 48 villages under its jurisdiction.

- The next action plan aims to implement a new petrol/diesel pump system through the cooperative and it is recommended to implement this initiative as soon as possible.
- The cooperative has proposed issuing RuPay Kisan Credit Cards (KCC) to its members. Through the RuPay Kisan Credit Card, loans are available to cooperative society members at reasonable rates, and the card can also be used for other financial transactions, thereby playing a significant role in the financial inclusion of members.
- There is an opportunity to open Janaushadhi Kendras (JAKs) through the cooperative and it has been suggested to adopt this initiative.
- The drone currently acquired from NCDC is being used for pesticide spraying and can also be utilized for property surveys, creating new business opportunities and increasing the cooperative's income.
- The cooperative has proposed providing micro-ATMs to its members to function as a bank-friendly cooperative society.
- There is an opportunity to adopt initiatives such as the cooperative's water committee and the PM-KUSUM scheme and it has been suggested to implement these.
- The cooperative has been advised to update its website information.

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Healthcare Cooperative Success Story of NS Cooperative Hospital Kollam, In Kerala

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Abstract:

The success story of the NS Cooperative Hospital in Kollam, Kerala, exemplifies how a healthcare cooperative can significantly enhance the quality of healthcare delivery while maintaining affordability and accessibility for a diverse population. This study aims to analyze the factors contributing to the success of the hospital, focusing on its cooperative model, management strategies, and community involvement. Aim: To evaluate the operational model, success factors, and impact of NS Cooperative Hospital in Kollam, Kerala, and how it has contributed to the improvement of healthcare services in the region. Methodology: Case Study Review: Comparison with other successful healthcare cooperatives in India. Results: Cooperative Structure: NS Cooperative Hospital's member-driven governance and transparent decision-making processes resulted in a sustainable model that ensured accountability and financial stability. Financial Sustainability: The hospital showed consistent profitability while offering affordable healthcare services, especially to lower-income groups. Community Engagement: Active participation of the local community in hospital activities led to higher patient trust and satisfaction, contributing to the hospital's success. Healthcare Outcomes: Improvements in healthcare delivery, including reduced mortality rates and higher patient recovery rates, were noted. Conclusion: NS Cooperative Hospital's success can be attributed to its cooperative governance, financial prudence, and strong community involvement. Its model serves as a potential blueprint for healthcare cooperatives across

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India, offering valuable lessons in sustainability, affordability, and quality healthcare.

Keywords:

Healthcare cooperative, NS Cooperative Hospital, community healthcare, sustainable healthcare.

Introduction:

The success story of the NS Cooperative Hospital in Kollam, Kerala, exemplifies how a healthcare cooperative can significantly enhance the quality of healthcare delivery while maintaining affordability and accessibility for a diverse population. This study aims to analyze the factors contributing to the success of the hospital, focusing on its cooperative model, management strategies, and community involvement. To evaluate the operational model, success factors, and impact of NS Cooperative Hospital in Kollam, Kerala, and how it has contributed to the improvement of healthcare services in the region.

Methodology:

Case Study Review: Comparison with other successful healthcare cooperatives in India.

Cooperative Structure: NS Cooperative Hospital's member-driven governance and transparent decision-making processes resulted in a sustainable model that ensured accountability and financial stability.

Financial Sustainability:

The hospital showed consistent profitability while offering affordable healthcare services, especially to lower-income groups. Community Engagement: Active participation of the local community in hospital activities led to higher patient trust and satisfaction, contributing to the hospital's success. NS Cooperative Hospital's success can be attributed to its cooperative governance, financial prudence, and strong community involvement. Its model serves as a potential blueprint for healthcare cooperatives across India, offering valuable lessons in sustainability, affordability, and quality healthcare.

Objective:

- ❑ Employees' perception of cooperative hospital shows that Health care management (HCM) practices positively influence the organizational change process.

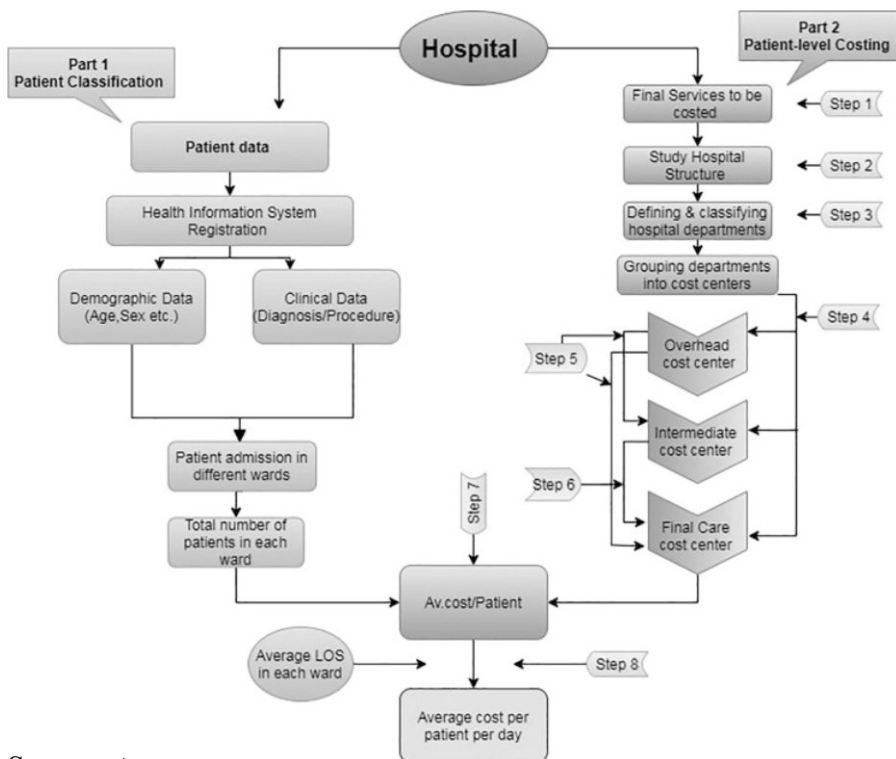
- ❑ Employees' perception of cooperative hospital shows that the organizational change process positively influences operational performance and employee retention and negatively influences organizational abandonment.
- ❑ Organizational change significantly mediates the relationship between Health care management (HCM) practices, operational performance, employee practice, and organizational rejection in the perception of healthcare organizations' employees.
- ❑ To assess a cooperative hospital service quality along each of the five SERVQUAL dimensions. To track members' expectations and perceptions (on individual service attributes and/or on the SERVQUAL dimensions) over time.

NS Co-operative Hospital Profile:

was started in 2006, in memory of the late Com. N. Sreedharan, an illustrious human, and great politician - popularly known as N.S, the hospital tries to live up to his values. N.S was a great propagator of the Communist Movement in Kerala, an idol in the socio-political field, and a favorite leader among the masses. He died in an accident while serving as the State Secretariat Member of the party on February 17th, 1985 at Kottarakkara.

N.S. Memorial Institute of Medical Sciences was inaugurated by Sri. Prakash Karat, General Secretary, Communist Party of India (Marxist) in presence of Sri. P.K. Gurudas, Hon: Minister for Labour & Excise, Kerala, Sri. P. Rajendran, Member of Parliament, Kollam constituency, and other eminent personalities. We enter our 17th glorious year in the path of service for the public, and we continue to win their faith and confidence through our altruistic efforts. Every year more than 6 lakh patients benefit from our services and the hospital has become an icon of healthcare in Kerala. Ours is a 500 bedded Hospital with an outstanding medical team consisting of 130 doctors & 1300 medical-paramedical staff with 36 Multi-Super Specialty departments. Our 9 storied super-specialty block started with facilities like 1.5T wide-bore MRI, 128 Slice multidetector CT and modern Cath lab units. It was a dream-like achievement for the society to get accredited by NABH Safe-I. Our hospital got the "Best hospital in Kerala" award from the Kerala state government in 2019 and 2024. We are proud to say that our treatment cost is 30% less than our neighboring hospitals. We are providing discount facilities to the economically backward section of society (AAY) with a

reduction of 30% in the overall bill (excluding medicine charges) & a 10% discount on all medicines. The institution stands with a vision to serve the poor. We consider this our responsibility to society.



Success story:

NS Cooperative Hospital has bagged the award for the best cooperative hospital in the State for the fourth consecutive year. The hospital functions under the Kollam District Cooperative Hospital Society which is the first cooperative society in the State to achieve this feat. It was founded in 2000 in memory of N. Sreedharan (died 1985), a communist organizer who was a member of the secretariat of the Communist Party of India (Marxist). This is the first Co-operative Multi Super Specialty Hospital in South Kerala. Best hospital award for NS Co-operative Hospital Award will be handed over on July 2024.

Statement of the problem:

Cooperative hospital has been playing with role in providing health care service to the members and the general public, through first cooperative

hospital was started in Karnataka way back in 1951, they have become very preeminent in the state of Kerala, since 1969. The Phenomenal existence of cooperative healthcare system in Kerala has been contributing for the wellbeing and to the analyzing of life index. the robust health care system in Kerala is inclusive Ayurveda, Yoga ,Naturopathy ,Unani , Siddha, Homeopathy, and Allopathic. After independence, Kerala adopted the “Kerala model of development” by focusing on literacy, education, healthcare, the public distribution system, and the cooperative movement. In addition to hospitals, cooperatives are running medical colleges, nursing schools, nursing colleges, pharmaceuticals etc., for the betterment of people. The efficacy NS Cooperative Hospital in Providing Sustainable Health Care Services to the Community responsibilities with their obligations to serve the immediate needs of patients. Addressing the issue of balance requires combining considerations from both medical ethics and Community ethics. Hospital is a place where human illness is defined, diagnosed and treated for, whereby restoration of health and well-being is made for those deprived of it temporarily. A large number of professionally and technically qualified people apply their knowledge and skill with the help of complicated equipment and appliances to produce quality care for patient.

Research methodology:

Research design: Descriptive research design is used for the study. Descriptive research is research of fact finding. Major use of research design is used in those studies which are concerned with Characteristics of such events. The descriptive and analytic research design is used for this study as it described with assessing patient for Health Care Services to the Community and Performance for the employees of NS Cooperative Hospital.

Primary data:

Primary data are those which are collected afresh initially and thus happen to be original in character. There are several methods in which the data is compiled. In this study, it was obtained by means of a structured scale.

Secondary data:

The present study is mainly based on primary data. However, secondary data was also used. The secondary data includes numerous collections from books, reputed journals, magazines, articles, etc., This data was helpful to draft the conceptual framework of the study.

Tools for data analysis and interpretation:

Different tools used in this study are: Simple percentage Method In this study, percentage method test is also used.

Sample design: Sample design lay down all the details to be included in the sample. It is a definite plan for obtaining a sample from a given population. The sample technique used was the simple stratified random sampling. In this type of sampling items for the sample are selected deliberately.

Study population:

The employees and patients of NS Cooperative Hospitals in Kerala.

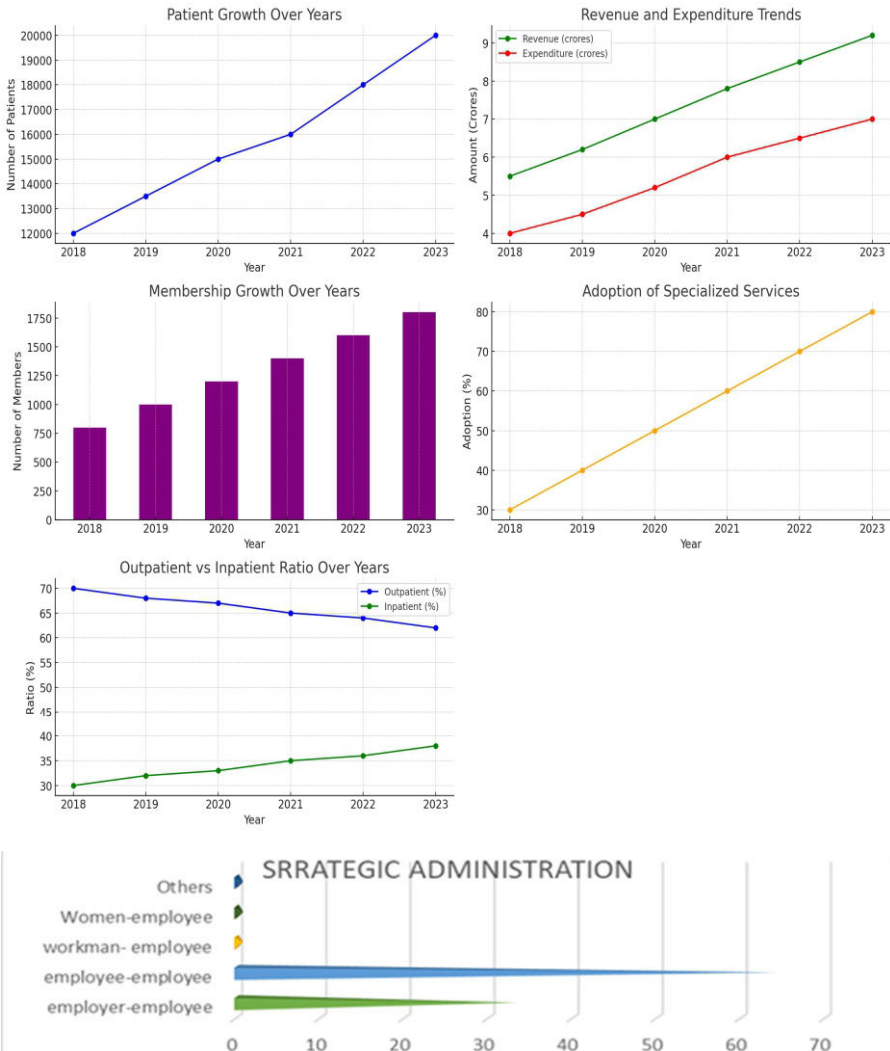
Sample size:

Sampling is the process of obtaining information about the entire population by examining only a part of it. There are many employees working in NS Co-operative Hospital. Due to shortage of time researcher found it difficult to approach each employee personally. I have collected the data from employees and patients. The samples were collected using simple random sampling method.

Analytical Tools of the Study:

- ☐ The data collected was analyzed and interpreted with relevant statistical tools for planning conclusion. For analyzing the data, SPSS was used. Relevant tools such as percentage analysis for demographic profile and Simple percentage, ANOVA, t-test, Chi-square reliability analysis for other questions. Statistical Package for Social Sciences was used to perform the above tests to analyses the data.
- ☐ Innovation/Path breaking aspect of the research
- ☐ There are various studies available in the fields of cooperatives hospitals. However, there are a very few studies available on the impact of Health care management (HCM) on Cooperative hospitals performance in Kerala. Thus, the researcher has found a research gap in this area and tries to conduct research in this area.
- ☐ The study aims to find the impact of Health care management (HCM) on Cooperative hospitals performance in Kerala. New Data to be generated.
- ☐ The present study aims to study impact of Health care management (HCM) on Cooperative hospitals performance in Kerala.
- ☐ Expected Contribution of the Study

- ❑ The study has an idea of contributing to the system of medicine, Kerala's Cooperative hospital, health care sector, with special reference to the state of Kerala. It aims to study and identify the various aspects of impact of strategic Human Resource Management that makes the cooperatives hospital performance successful.



Discussion:

The managerial literature extensively explores the correlation between health care management (HCM) practices and NS cooperative hospital performance,

recognizing the unique intricacies of the healthcare sector. Within healthcare organizations, HCM practices play a pivotal role in enhancing organizational performance amidst the continuous evolution of the industry. Our study examined four hypotheses, considering the mediating role of the organizational change process in elucidating both direct and indirect relationships between HCM practices and cooperative hospital performance. In conclusion, our empirical investigation underscores the significant contribution of change management components to cooperative hospital performance, quality of health services, and user satisfaction. While the direct impact of HCM practices on cooperative hospital performance is substantial, the mediation effect through organizational change is also significant, emphasizing the pivotal role of HR in change management for improving organizational performance, as highlighted by previous research

Contribution of the Study:

Existing Body of Knowledge: The present study will success story analyze the SHRM functions facilities and administrative pattern of NS cooperatives Hospitals in Kerala, Problems faced by strategic Health care Management practices as followed in the cooperative Hospitals in Kerala, performance effectiveness of the cooperative Hospitals, impacted by the HCM practices will be focused in this research.

Relevance of the Study for the Society:

To determine the average gap score (Health care services to the Society on Sustainable basis patients perceptions and employee's expectations) for each service attribute.

Implication of the Study for expectations and perceptions Policy-making:

To assess a cooperative hospital service quality along each of the five SERVQUAL dimensions. To track members expectations and perceptions (on individual service attributes and/or on the SERVQUAL dimensions) over time.

Conclusion:

In conclusion, our research underscores the importance of implementing effective Health care practices and adeptly managing organizational change to enhance NS cooperative hospital performance while simultaneously reducing employee turnover and organizational abandonment. Therefore, organizations must recognize these interconnections and take proactive

measures to improve performance. Specifically, within the healthcare sector, our findings highlight the mediating role of the organizational change process in the relationship between health care management practices and organizational performance. By prioritizing employee involvement and providing comprehensive change management training, cooperative hospital organizations can enhance their performance effectively.

Limitations and further research:

While our study contributes valuable insights, it also presents several limitations and avenues for further research. Firstly, the Case study cross-sectional approach adopted in our empirical study restricts our ability to analyze effects longitudinally. Given the dynamic nature of the economic environment, a longitudinal study would be beneficial to track trends in the relationships observed. Secondly, relying on self-administered questionnaires may introduce bias into the research process. To address this, we have implemented methodological and statistical techniques recommended for mitigating common method biases. Thirdly, our study could benefit from the incorporation of additional variables related to Health care practices, the organizational change process, and NS cooperative hospital performance. Variables such as organizational culture, employee satisfaction, and commitment could serve as potential mediators or moderators in the relationships examined. Expanding the scope to include these variables could enrich our understanding of the complexities inherent in these constructs.

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Cooperative Education and Capacity Building in India: Role of NCCT to Prepare for Future Challenges

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Abstract:

This paper explores the effectiveness of the National Centre for Cooperative Training (NCCT) in addressing the needs of Indian cooperatives, based on findings from primary and secondary data analysis. The primary data, collected from directors and deputy directors across RICMs (Regional Institutes of Cooperative Management) and ICMs (Institutes of Cooperative Management), reveals that 83.3% of respondents are from RICMs and ICMs, while 16.7% are from VAMNICOM (National Institute of Cooperative Management). The majority of respondents believe that NCCT's training programs are highly effective, with key strengths identified in regional applicability, practical content, comprehensive curriculum, and skilled trainers. However, the study highlights areas for improvement. Limited faculty strength is a major concern, with 80% of respondents citing this as a key issue. Other concerns include the lack of regional relevance and the need to focus on leadership, governance, and digital transformation in future training programs. Secondary data analysis shows trends in program and participant growth, particularly in sectors like Agriculture Credit and Professional Courses (MBA), while emerging sectors such as Fishery Cooperatives and Skill Development Programs show increased attention. Regional analysis highlights consistent growth, with the Southern region leading, but declines in certain sectors like Micro Credit and Sugar Cooperatives. Based on these

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findings, several recommendations are proposed. First, increasing faculty strength by recruiting qualified trainers with cooperative experience is essential. Additionally, NCCT should prioritize quality over quantity in training programs, ensuring that topics align with current trends in leadership, governance, and digital transformation. Infrastructure improvements, such as upgrading classrooms and training facilities, are crucial to enhancing the learning experience. Furthermore, regional relevance should be prioritized, tailoring programs to meet the unique needs of different areas. Financial support for weaker cooperatives should also be increased to ensure inclusivity. Investing in digital transformation is another key recommendation, focusing on e-library facilities and expanding online and hybrid training options. NCCT should continue expanding into emerging sectors and emphasize skill development to align with market demands. Strengthening specialized training programs and aligning them with workforce readiness and economic development will ensure that participants are prepared to address the challenges of the cooperative sector. These recommendations will help ensure NCCT's training programs are more effective, relevant, and future-ready.

Keywords:

NCCT

Introduction:

Cooperatives have long been essential to India's socioeconomic growth, meeting a range of requirements like social justice, rural development, and financial inclusion. The growth of cooperatives has been essential in giving underserved groups access to opportunities and services, particularly in rural areas. For the cooperative sector to remain effective and relevant as the nation navigates swift changes in economics, technology, and policy, it must constantly adapt. In this regard, the foundation for enabling cooperative institutions and their stakeholders to handle new issues is formed via cooperative education and capacity-building programs (Sharma, 2019).

A major force in the development of cooperative education in India is the National Council for Cooperative Training (NCCT), which was founded under the regulations of the Ministry of Cooperation. NCCT has established a strong framework to provide focused training and capacity-building programs through a structured network that includes the Vaikunth Mehta National Institute of Cooperative Management (VAMNICOM), five Regional Institutes of Cooperative Management (RICMs), and fourteen Institutes of Cooperative Management (ICMs). These programs are intended to give

women leaders, young individuals, cooperative board members, and other important stakeholders the information and abilities they need to handle crucial issues including financial management, governance, and digital transformation (*Bhatia et al., 2020*).

Despite these noteworthy initiatives, a more thorough analysis of the programs' efficacy is required due to the changing socioeconomic environment and worldwide trends. In this study, NCCT's cooperative education and training programs from the fiscal years 2020–21, 2021–22, and 2022–23 are evaluated. It looks for new trends, points out weaknesses in current programs, and investigates ways to match upcoming projects with current demands and global standards (*Kumar & Singh, 2021*).

This study uses a mixed-method approach, integrating information from Focused Group Discussions (FGDs) with data analysis from NCCT's annual reports. Key elements are assessed in the study, such as target audience inclusion, online, offline, and hybrid delivery methods, training program thematic focus areas, and regional outreach. Additionally, it highlights issues including gaps in essential skill areas, inadequate geographic coverage, and the underrepresentation of particular groups, providing a basis for practical suggestions (*Rao, 2022*).

This research attempts to make sure that NCCT's training units are prepared to handle upcoming difficulties by offering a road map for improving cooperative education and capacity-building initiatives. To make sure that cooperative education is in line with international trends and the changing needs of Indian cooperatives, the results and recommendations stress the significance of ongoing evaluation, modular training methods, and region-specific adaptation (*Mehta, 2023*).

Literature Review:

Rodríguez et al. (2003) in their study identified the low educational levels and lack of training among members and employees of olive oil cooperatives as major challenges. Members, mainly agricultural workers with limited access to state-funded education, showed minimal interest in gaining knowledge about cooperative management, agriculture, or cooperative culture. This educational and training gap led to conservative decision-making, with little change in management due to the members' limited understanding or control. Employees in administrative and production roles also faced similar deficiencies, which hindered the economic growth of olive oil cooperatives. Using a descriptive methodology, the study assessed the impact of educational

and training levels on management and economic performance. The authors recommended focusing on general education and specialized training within farm cooperatives, highlighting the importance of cooperative culture and management skills, and promoting participatory democracy to support informed decision-making and innovation.

Singh, K. (2007) in his study emphasized that while cooperatives play a vital role in India's rural economy, they face numerous challenges, including ineffective governance, political meddling, and a lack of professional management and human resource development. It identified several obstacles, such as the shortage of qualified managers, outdated cooperative laws, and excessive government oversight. Recommendations focused on attracting competent faculty, creating specialized training programs for cooperative managers, enhancing infrastructure, and providing more autonomy to training institutes. The study stressed the importance of implementing prior government recommendations to professionalize cooperative management and improve their overall effectiveness.

Bekele, A. D. et al(2011) in their study explored the training needs of cooperative dairy marketing members in the Arsi Zone, Oromia, Ethiopia. Employing a survey methodology, the researchers utilized structured interviews and focus group discussions with 176 randomly selected respondents, analysing data through descriptive statistics, chi-square tests, correlation, and regression analysis. Findings revealed that 55.7% of members had low awareness of dairy marketing, while 70.4% identified medium to high training needs. Members preferred practical, group-based training lasting three to six days, conducted once a year during winter. Challenges included irregular milk supply, transport issues, limited access to credit, and a lack of training opportunities. The study recommended adopting participatory training approaches tailored to members' preferences to enhance awareness, foster motivation, and strengthen cooperative ownership and responsibility.

The study by **Soni, A. K. et al. (2013)** highlighted the inefficiency of human resource management and development in cooperatives due to inadequate policies and financial limitations. Many cooperatives lack professional management, clear staffing norms, and structured HRD policies for recruitment, training, and career advancement. Using a diagnostic research design, the study identified challenges such as weak education systems, limited funding, poor communication among stakeholders, and insufficient training infrastructure. The authors recommended prioritizing HRD by establishing robust policies, improving financial support, and enhancing

managerial capacity to boost efficiency, productivity, and accountability within the cooperative sector.

Kinyuira, D.K. (2017) in his study found that although more than 74.3% of surveyed SACCOS offered education, most of it focused on business information rather than on cooperative ideology, values, and principles. While education on financial and operational matters was common, there was no structured effort to raise awareness about cooperative philosophy, which contributed to weak member commitment and stagnant membership growth. Using a survey methodology, the study examined the connection between cooperative education and performance, showing that it positively influences income, assets, and member equity. The study recommended emphasizing cooperative ideology in training, promoting member loyalty, and involving youth and the broader public to foster membership growth and ensure long-term sustainability.

The research by **Riyanto, S. (2017)** analyzed the impact of training and organizational commitment on the performance of the State University of Jakarta Student Cooperative (KOPMA UNJ) management. Using a quantitative approach and a census sampling method, data from 70 management members (2015–2016) were collected through questionnaires and analyzed using multiple linear regression. The findings revealed that both training and organizational commitment positively and significantly influenced management performance, with organizational commitment having a slightly stronger effect. Key contributors included the development of emotional bonds and structured training programs. The study recommended regular, targeted training and fostering strong organizational ties to improve management performance.

A study by **Anania et al. (2018)** on seven SACCOS in Tanzania's Singida and Dodoma regions used a descriptive, cross-sectional design with a sample of 70 participants, including members, staff, and leaders. The research revealed that education and training were not distributed equally, with leaders and staff receiving priority over ordinary members. Factors such as financial resources, availability of trainers, training urgency, external support, and legal requirements were found to influence training provision. The study found that education and training had a positive impact on loan collection, customer care, financial management, and reduction in bad debts. It recommended increasing funding, utilizing external support, and adopting inclusive training strategies to ensure fair access for all members, address training gaps, and improve cooperative performance.

The article by **Dr. Daman Prakash (2019)** emphasized the critical role of member education in strengthening cooperative institutions. It outlined a structured approach where cooperatives thrived through democratic management, active member participation, and adherence to cooperative principles, particularly the fifth principle on education and training. The methodology involved case studies from India, Indonesia, and Sri Lanka, which showcased training programs, capacity building, and member engagement to improve cooperative functionality. The findings revealed that education enhanced transparency, reduced debt, diversified business, and fostered trust among stakeholders. The recommendation was to prioritize education programs tailored to cooperative needs to ensure sustainability and member empowerment.

The study by **Lawrence, O. M. et al. (2021)** revealed that the context, inputs, processes, and outcomes of cooperative education and training (CET) in AMCOS were not aligned with sustainability objectives, leading to uneducated members, ineffective leadership, and inadequate training. Participants pointed out problems such as outdated curricula, substandard facilitation, and poor evaluation practices. Applying the CIPP Model, the research identified shortcomings in resources, infrastructure, and process methodologies that hindered the achievement of desired results. The study recommended creating more relevant curricula, enhancing facilitator quality, complying with ICA funding guidelines for training, and securing government support to fill financial gaps. It also stressed the importance of regulatory screening of trainers to ensure the relevance and effectiveness of the training.

Objectives of the Research:

1. Analyse sectoral trends and regional variations in program delivery and participation over three years.
2. Evaluate the growth of emerging sectors and identify reasons for declining trends in specific sectors.
3. Develop strategies to enhance the reach, inclusivity, and impact of cooperative training programs.

Research Methodology:

Source of Data: The study is exploratory in nature and is based on primary as well as secondary data sources. Secondary data was collected from the Annual Reports of NCCT from the three financial years (2020-21, 2021-22, 2022-23). The methodology involves analysis of the data collected from annual reports of NCCT to evaluate sector wise training programmes conducted by NCCT units (VAMNICOM/ RICMs/ ICMs) and regionwide training conducted by

RICMs/ ICMs. Primary data was enumerated from a filed survey from director and deputy directors of RICMs & ICMs.

Area of Sampling: National Council for Cooperative Training Units (NCCT) RICMs & ICMs Directors and Deputy Directors through field survey to get insight of the role of NCCT for prepare future challenges.

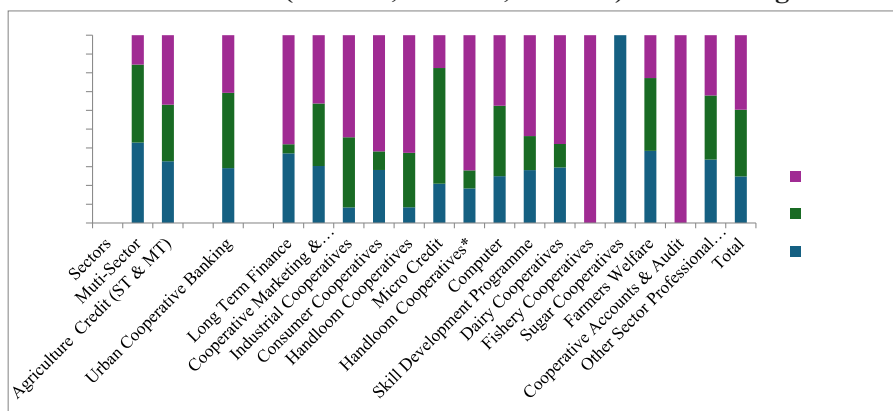
Sample Size: Under NCCT's framework, one National Institute of Cooperative Management (VAMNICOM), 5 RICMs, and 14 ICMs are operational. For the present study, a total of 20 samples were selected, comprising directors, deputy directors, and assistant professors from these RICMs and ICMs. samples were selected, comprising directors& Deputy Directors/ Assistant Professor from these VAMNICOM, RICMs and ICMs.

Method for data Collection: To collect primary data, structured questioners' method has been used for collecting data from the directors& deputy directors of RICMs& ICMs, both open ended & closed ended questions were included in the schedule.

Data Analysis:

Sector Wise Programme Conducted by VAMNICOM/ RICMs/ ICMs (2020-21, 2021-22, 2022-23)

Fig. No. 1.1: Sector-Wise Programmes Conducted by VAMNICOM/ RICMs/ ICMs (2020-21, 2021-22, 2022-23) in Percentages



The data shows significant variation in the number of programmes conducted across various sectors over three years (2020–21, 2021–22, and 2022–23). The "Agriculture Credit (ST & MT)" sector displayed a steady and notable increase in programmes, peaking at 13.42% in 2022–23, reflecting a growing emphasis on short- and medium-term agricultural financing. In contrast, the

"multi-sector" category saw a sharp decline from 6.57% programmes in 2021–22 to just 2.4% in 2022–23, indicating a shift in focus or resource allocation.

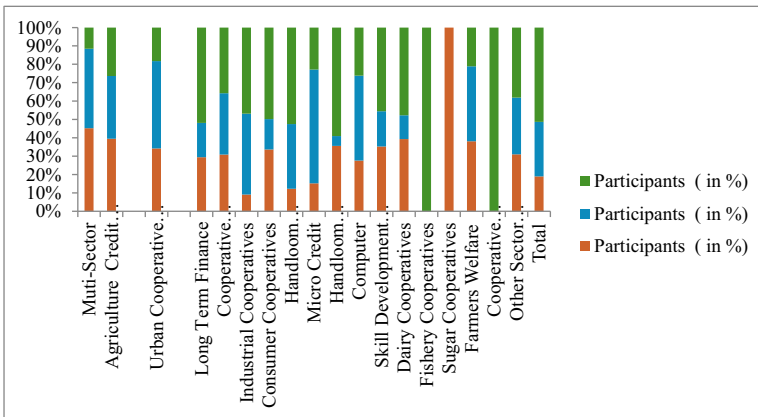
The "Farmers Welfare" sector had high programme activity, with a peak in 2021–22 at 14.32%, followed by a decline in 2022–23. Other prominent growths include the "Skill Development Programme" and "Dairy Cooperatives," which saw marked increases in 2022–23, emphasizing an enhanced focus on skill enhancement and dairy-related initiatives. Conversely, sectors like "Micro Credit" experienced a drop-in activity after a peak in 2021–22.

The "Other Sector Professional Course (MBA)" consistently dominated in programme numbers, with a continuous rise to 50.81% in 2022–23, highlighting a significant prioritization of professional education. New additions, such as "Fishery Cooperatives" in 2022–23, reflect an expansion into previously underrepresented sectors.

Overall, the trends suggest strategic shifts in priorities across years, with a significant focus on agriculture, professional education, and skill development, while some sectors experienced declining attention or stagnation. These patterns likely reflect policy adjustments, economic priorities, and resource reallocation.

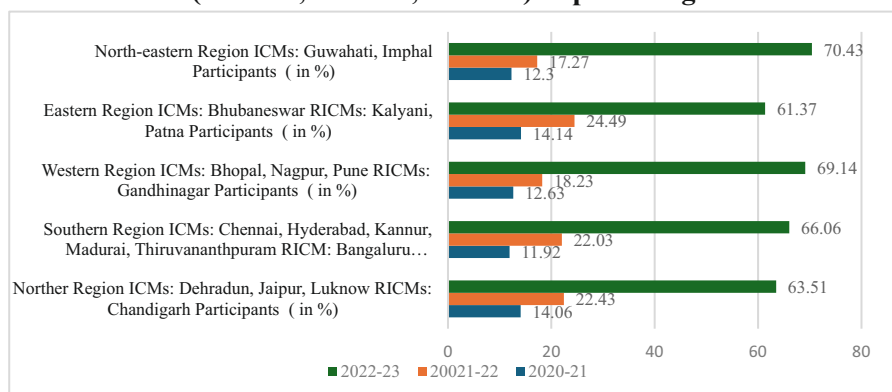
Sector wise participants trained by VAMNICOM/ RICMs/ ICMs (2020-21, 2021-22, 2022-23) in percentage:

Fig. No. 1.2: Sector-Wise Participants Trained by VAMNICOM/ RICMs/ ICMs (2020-21, 2021-22, 2022-23) in Percentages



The data reflects notable trends in participant training across various sectors over three years, from 2020-21 to 2022-23. There is a significant overall increase in participation, particularly in categories such as "Other Sector Professional Courses (MBA)," which grew dramatically from 54% participants in 2020-21 to 66% in 2022-23. This indicates a growing emphasis on professional and managerial education. Similarly, the "Agriculture Credit (ST & MT)" sector experienced consistent growth, reaching 11.03% participants by 2022-23, underscoring the increasing importance of agricultural financing. In contrast, "Urban Cooperative Banking" showed a decline in 2022-23 after peaking in the previous year, possibly reflecting changing training priorities or reduced demand. Emerging sectors, such as "Fishery Cooperatives," introduced in 2022-23 with 2.21% participants, highlight a diversification in focus areas, while skill development programs also saw a surge, indicating a renewed emphasis on workforce readiness. However, certain areas, such as "Micro Credit" and "Sugar Cooperatives," experienced declines, suggesting a shift in strategic importance or reduced sectoral activity. The data illustrates a strategic realignment of training efforts towards high-demand areas and sectors poised for growth, aligning with socio-economic needs and emerging opportunities.

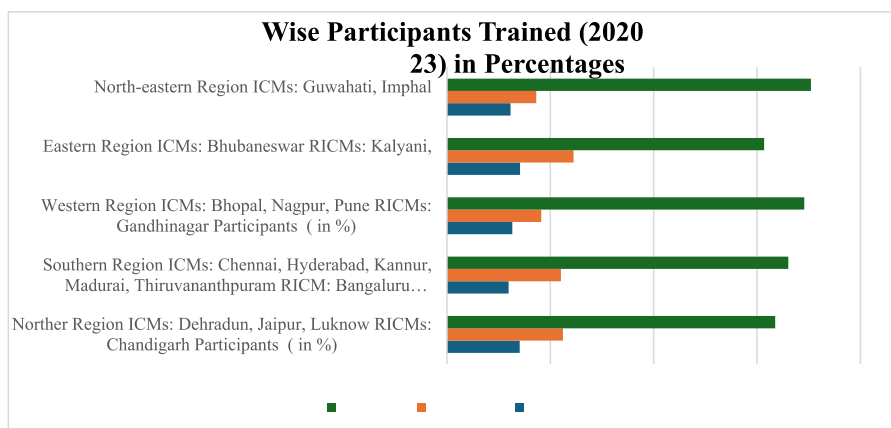
**Fig. No. 2.1: Region -wise Training Programmes
(2020-21, 2021-22, 2022-23) in percentage:**



The data indicates a clear upward trend in the number of programs conducted across all regions from 2020-21 to 2022-23. The Southern Region demonstrated the highest growth, with the number of programs nearly quadrupling, reaching 69.14% in 2022-23. This indicates a strong focus on developmental initiatives in this region, possibly reflecting its larger or more engaged population base. The Northern Region also saw substantial growth,

with programs increasing from 11.92% in 2020-21 to 66.06% in 2022-23, emphasizing enhanced outreach and engagement efforts. The Western Region experienced a significant rise in programs, with a threefold increase from 14.14% to 61.37% over the three years, signalling its growing importance. Similarly, the Eastern Region showcased consistent growth, with programs increasing from 12.3% to 70.43%, while the North-eastern Region displayed the lowest absolute numbers but still saw a doubling in the number of programs conducted, from 22.46% to 48%. The consistent rise across all regions reflects a concerted effort to expand program coverage and accessibility, catering to regional needs and driving development through targeted initiatives. This growth trajectory highlights the focus on regional equity and capacity-building across the nation.

**Fig. No. 2.2: Region -wise participants Trained
(2020-21, 2021-22, 2022-23) in percentage**



The data reveals a substantial increase in the number of participants trained across all regions from 2020-21 to 2022-23, reflecting a significant scaling up of training initiatives. The Southern Region consistently had the highest number of participants, growing from 11.92% in 2020-21 to 66.06% in 2022-23, indicating a strong emphasis on training programs in this region, possibly driven by high demand or strategic prioritization. The Northern Region also exhibited remarkable growth, with participants increasing from 14.06% to 63.51% during the same period, highlighting an enhanced focus on capacity-building efforts. The Western Region demonstrated notable progress, with the number of participants increasing over fivefold from 12.63% to 69.14%, underscoring its rising importance in developmental activities. The Eastern

and North-eastern Regions, although starting with smaller absolute numbers, also showed substantial growth. The Eastern Region expanded from 14.14% participants in 2020-21 to 61.37% in 2022-23, while the North-eastern Region, despite being the smallest in scale, experienced a significant rise from 12.3% to 70.43% participants. The overall upward trend across all regions signifies a nationwide commitment to fostering human capital development through targeted training programs, addressing both regional disparities and growing socio-economic needs.

Fig 3.1 Institutes & Positions

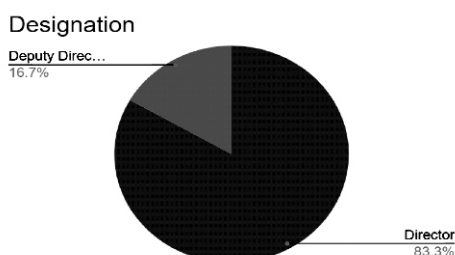


Fig 3.1 shows that the respondents comprise 83.3% Director from RICM & ICMs, and 16.7% from Directors / Assistant Professor from VAMNICOM & ICMs.

During the survey, respondents were asked to rate the effectiveness of NCCT's training programs in addressing the needs of Indian cooperatives, with options ranging from very effective, moderately effective, slightly effective, to not effective. The majority of respondents felt that NCCT's training programs are highly effective in meeting the needs of Indian cooperatives.

Respondents were asked to evaluate NCCT's training programs based on the following criteria: 1) Regional applicability, 2) Practical content, 3) Comprehensive curriculum, 4) Skilled trainers, and 5) Use of modern teaching methods. The results are presented in Fig 3.2.

Fig 3.2: Strengths of NCCTs Training Programmes

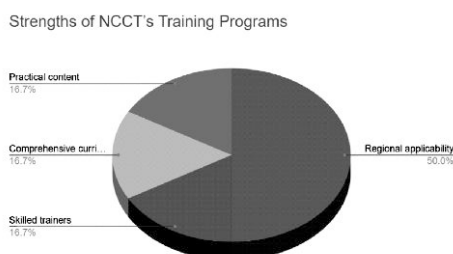


Fig 3.2 indicates that 50% of respondents consider regional applicability as the primary strength of NCCT training programmes, while the remaining 50% highlight practical content, a comprehensive curriculum, and skilled trainers as key strengths.

Respondents were asked to identify areas requiring improvement in NCCT's training programs based on the following criteria: 1) Outdated curriculum, 2) Lack of regional relevance, 3) Ineffective training methods, and 4) Limited faculty strength. The results are illustrated in Figure 3.3.

Fig3.3 Area require improvement in NCCTS Training Programmes

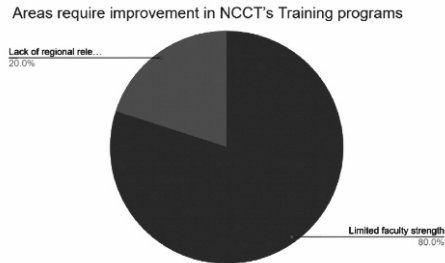


Figure 3.3 indicates that 80% of respondents believe that limited faculty strength requires improvement in the NCCT training programmes, while the remaining 20% highlight the lack of regional relevance as an area needing improvement.

Respondents were asked to identify areas requiring improvement in NCCT's training programs based on the following criteria: 1) digital transformation, 2).leadership & Governance improvement. The results are illustrated in Figure 3.4.

Fig3.4: which global trends Should NCCT prioritize for Cooperative Education & Training

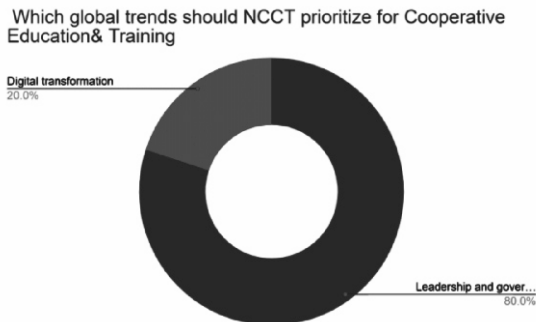


Figure 3.4 reveals that 80% of respondents believe NCCT should focus on leadership and governance aligned with global trends for cooperative education and training, while the remaining 20% emphasize digital transformation.

During the survey, respondents were asked to provide their top three recommendations for making NCCT's training programmes future-ready. Their responses are summarized and ranked in Table 1 as follows:

Table 1

Recommendations	Ranking
Focus on quality training program than the numbers & Making topics relevant to the need of the time	4
Recruiting trainers with co-op experience	2
Adopt a good performance appraisal for all faculty and staff	
Sufficient manpower for both teaching & non-teaching.	1
Infrastructure development - classrooms, conference hall, computer centre, office & hostel.	3
E-library facilities in all RICMs/ UCMs	6
Coverage of all Sections of Cooperatives	7
Sanction of budget for training of weaker cooperative institution	5

The insights from Table 1 highlight that the highest priority for making NCCT's training programmes ready for the future is ensuring sufficient manpower for both teaching and non-teaching staff (Rank 1), followed by recruiting trainers with cooperative experience (Rank 2) and improving infrastructure, including classrooms, conference halls, and hostels (Rank 3). A focus on quality over quantity and aligning topics with contemporary needs ranks fourth, emphasizing the importance of relevance in training. Sanctioning budgets for training weaker cooperative institutions (Rank 5) reflects the need for inclusivity, while digital advancements such as e-library facilities (Rank 6) and broadening the coverage of training to include all cooperative sections (Rank 7) are seen as supporting enhancements. Collectively, these priorities underline the significance of resource optimization, infrastructure development, and program quality to make NCCT training resilient and adaptable to emerging challenges.

Findings and Recommendations:

Findings:

The primary data reveals that 83.3% of respondents are Directors from RICM & ICMs, while 16.7% are from VAMNICOM & ICMs. All respondents believe that NCCT's training programs are effective in addressing the needs of Indian cooperatives. Half of the respondents consider regional applicability as the key strength of NCCT training, while the other half highlight the importance of practical content, a comprehensive curriculum, and skilled trainers. The data also shows that 80% of respondents feel that limited faculty strength is an area requiring improvement, while 20% point to the lack of regional relevance as a concern. Regarding future priorities, 80% of respondents believe NCCT should focus on leadership and governance in line with global trends, while 20% emphasize the importance of digital transformation. The primary data further reveals that ensuring sufficient manpower for teaching and non-teaching staff is the top priority, followed by recruiting trainers with cooperative experience and improving infrastructure. Other key recommendations include focusing on quality over quantity, aligning training topics with contemporary needs, and allocating budgets for training weaker cooperative institutions. The data also suggests the importance of digital advancements, such as e-library facilities, and expanding training coverage to encompass all sections of cooperatives. Overall, the data highlights the need for resource optimization, infrastructure enhancement, and program quality to ensure NCCT training is adaptable and resilient to emerging challenges.

Secondary data analysis shows significant variations in the number of programs conducted and participants trained across sectors and regions over the past three years. Key sectors such as "Agriculture Credit (ST & MT)" and "Other Sector Professional Courses (MBA)" consistently demonstrated upward trends in both program numbers and participant engagement, reflecting their strategic importance. The growth in professional and managerial education programs signals a growing focus on workforce readiness and economic development, while the steady rise in agricultural financing programs highlights the increasing emphasis on supporting the agricultural sector through enhanced credit access. Emerging sectors, like "Fishery Cooperatives," indicate efforts to expand into previously underserved areas, while the surge in "Skill Development Programmes" reflects a renewed emphasis on capacity building and employability

enhancement.

Regional analysis shows robust growth in program and participant numbers across all regions, with the Southern Region leading in both metrics. This consistent growth suggests targeted efforts to address local developmental needs while reducing regional disparities. However, sectors such as "Micro Credit" and "Sugar Cooperatives" saw declines, potentially reflecting shifts in strategic focus or reduced sectoral demand. Additionally, the decline in multi-sector programs suggests a reallocation of resources toward high-impact, specialized areas. These findings suggest that NCCT's focus is increasingly on specialized, high-priority sectors that align with both current and future developmental goals.

Recommendations:

Based on the primary and secondary data analysis, the following recommendations can be made to enhance NCCT's training programs and ensure they remain effective and future-ready:

1. **Enhance Faculty Strength and Expertise:** As 80% of respondents identified limited faculty strength as an area for improvement, NCCT should focus on recruiting qualified trainers with cooperative experience to strengthen the teaching faculty. Additionally, a well-structured performance appraisal system for faculty and staff should be implemented to ensure continuous professional development.
2. **Focus on Quality over Quantity:** A shift towards prioritizing quality in training programs, rather than focusing solely on the number of programs, is essential. This includes ensuring that the topics covered are relevant to the current and emerging needs of the cooperative sector, as well as aligning programs with global trends in leadership, governance, and digital transformation.
3. **Improve Infrastructure:** Significant improvements in infrastructure, such as classrooms, conference halls, computer centres, and hostels, are crucial to create a conducive learning environment. This will enhance the overall experience for participants and trainers alike.
4. **Expand Regional Relevance:** Since 20% of respondents highlighted regional relevance as an area for improvement, it is recommended that NCCT tailor its programs to better address the unique needs of different

regions. This could include localized content and outreach efforts to ensure that training is aligned with regional priorities.

5. **Strengthen Financial Support for Weaker Cooperatives:** Sanctioning a dedicated budget to support the training of weaker cooperative institutions will promote inclusivity and ensure that the benefits of NCCT's programs are extended to all sectors, particularly those facing financial challenges.
6. **Invest in Digital Transformation:** Given the growing importance of digital skills, the development of e-library facilities in VAMNICOM, RICMs and ICMs should be prioritized. Additionally, incorporating more online and hybrid training options will improve accessibility and engagement, especially for remote or underserved areas.
7. **Emphasize Skill Development and Emerging Sectors:** With the rising emphasis on skill development programs and the growth of sectors like fishery cooperatives, NCCT should continue expanding into emerging areas and focus on building skills that are aligned with current market demands.
8. **Strengthen Multi-Sector and Specialized Training Programs:** While there has been a decline in multi-sector programs, there is an opportunity to further develop specialized training programs in key sectors such as agricultural credit, cooperative governance, and professional courses. This will help meet the evolving needs of cooperatives while focusing on areas of high impact.
9. **Align Training with Workforce Readiness and Economic Development:** Given the growing trend towards professional and managerial education, NCCT should continue to develop programs that prioritize workforce readiness and contribute to economic development, ensuring that participants are equipped with the skills necessary to drive the cooperative sector forward.

By focusing on these recommendations, NCCT can strengthen its training programs, ensuring that they are more impactful, relevant, and responsive to the needs of the cooperative sector in India.

Conclusion:

The analysis of primary and secondary data underscores the effectiveness of NCCT's training programs in meeting the needs of Indian cooperatives while

highlighting areas for improvement. Key recommendations include strengthening faculty expertise, prioritizing quality over quantity, enhancing infrastructure, and improving regional relevance. Moreover, targeted investments in skill development, digital transformation, and specialized training in high-priority sectors are essential. It is equally important to focus on developing not only the workforce but also the members and leaders of cooperatives, ensuring they are equipped with the skills needed to drive organizational growth and governance. By addressing these strategic areas, NCCT can further enhance the impact and relevance of its training programs, ensuring they are more aligned with the evolving demands of the cooperative sector. Ultimately, these efforts will foster a resilient, skilled, and adaptable workforce, along with empowered cooperative leaders and members, all of whom will be better positioned to support the sustainable growth and long-term success of cooperatives in India.

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Revival & Strengthening of weak DCCBs: Approaches & Practices (A study of the Wardha DCC Bank Ltd., Wardha, M.S., India.)

S. B. Patil*

Abstract:

Indian Cooperative Movement emerged by way of formation of Primary Agriculture Cooperative Credit Societies (PACSSi), under the Cooperative Credit Societies Act, 1904. It was necessary to facilitate the provision of institutional agricultural finance to the farmers. Subsequently, the Mclagan Committee (1914) suggested the creation of a three-tier system to provide short term (ST) and medium term (MT) finance to the farmers.” This Three-tier structure consists of State Cooperative Banks (SCBs) at the apex level, District Central Cooperative Banks (DCCBs) at the District levels & Primary Agriculture Cooperative Credit Societies (PACS) at the Village levels.

State Governments, including Maharashtra state, have brought some financially weak DCCBs under the control of the Board of administrators. Governments are also making efforts for the revival & strengthening of such banks. Government support is being extended in the form of-

- *Capital infusion,*
- *Improving governance*
- *restructuring of banks*
- *Bringing reforms in credit monitoring.*

These efforts on the part of the state government & banks are showing good signs of the improvements. In view of above positive circumstances, it is interesting to conduct a study of the features of the present approaches & practices being adopted by the stakeholders, for the revival & strengthening of the financially weak DCCBs, & probable outcome of such efforts. The Wardha District Central Cooperative (WDCCB) Bank is one of the financially weak banks in Maharashtra & now passing through the process of its revival & strengthening.

The WDCC Bank has been selected for the purpose of conducting present study, as representative bank for this Study. The observations & suggestions from this study may prove to be useful for adopting additional approaches & practices for the revival & strengthening of the weak DCC Banks.

Key Words:

Three-Tier Structure, Financial weaknesses DCCB, Revival & Strengthening DCCB,

Introduction:

Indian economy is an agro based economy. An agriculture sector needs continuous inflow of capital for investment in it. The Cooperative system has been introduced in the country, at the beginning of the 19th century, to ensure availability of agriculture credit to the farmers through cooperative institutions formed by the farmers themselves. Existing three-tier agricultural credit structure is an outcome of this system. SCBs, DCCBs & PACSs are integral part of this agriculture credit structure known as STCCS. The DCC Banks, since beginning, are playing very crucial role in the three-tier credit structure. The DCCBs having their area of operations restricted to the respective district's, are known as the CFAs in the districts. These banks extend financial support to all primary cooperatives in the districts. These banks are also known as the backbones of the economies in the districts. However, presently, some DCCBs in some of the states in our country have become financially weak due to following reasons:

- Poor capital base
- High level of NPAs due to high default rates in agricultural loans
- Weak management practices
- Poor governance.
- Financial instability & mismanagement
- Low capital adequacy
- Weak financial performance
- Low profitability
- Liquidity issues
- Outdated operational structures
- Poor asset management

These weaknesses of the DCCBs have affected the credit delivery to the farmers & banking services in rural areas. Basically farmers, especially small & marginal farmers, are more accustomed with the cooperative credit structure. But due to the financial weaknesses of the DCCBs the PACSs also are affected & not in a position to provide credit services to their farmer

members. Alternate sources of agriculture credit delivery to the farmers are not that much assured & effective. Therefore, retention, revival & strengthening of weak DCCBs is a necessary step to be taken for ensuring orderly development of the cooperative movement in the district, state & country.

Members, depositors, borrowers, public in general & Government are stakeholders of the DCCBs. All the stakeholders in the banks are expected to play their roles effectively. The State Government is making all possible efforts to revive & strengthen the weak DCC Banks in the state of Maharashtra, including WDCC Bank, so as to put working of STCCS in place.

Need of Strengthening of DCCBs:

DCCBs are playing a prime role amongst STCCS. These banks have made major contribution to the economic progress of the respective districts. Financial weaknesses of the DCCBs are affecting SCBs & all primary cooperatives. It will also cause financial inconvenience to the local people. Therefore, it is necessary to retain, revive & strengthen the DCCBs.

Government's approach:

DCCBs are the legal entities which provide banking services to the farmers, primary cooperatives & common people in the district. Financial weaknesses of these banks are hampering progress of cooperative movement in the district & weakening the economy of the districts. Therefore, the government is of the opinion that such important institutions shall not be allowed to be financially weak.

Government's Support:

In view of the above, Central & States Governments are making efforts to strengthen STCCS & extend financial support, as share capital, to the weak DCCBs. The Government of India has launched various new initiatives for the strengthening of STCCS.

Research Methodology:

Research questions:

Whether present approaches & practices being adopted by the stakeholders, for the 'Financial Resilience & Sustainable Development of the weak DCC Banks are adequate enough?

Objectives of Study:

- To assess relevance of the Three-tier agricultural credit structure, in present days.
- To assess whether the approaches & practices being adopted for the revival & strengthening of the DCCBs, specially WDCCB, are adequate?
- To suggest additional measures for the revival & strengthening of the DCCBs specially WDCCB.

Collection of Primary Data through questionnaires:

- The data has been collected, through the questionnaires floated online.
- The data is received from the individual depositors/borrowers (150) & cooperatives/institutions (150) from the Wardha district.
- The samples were selected randomly.

Discussion/Deliberations:

- Discussions were held with various regulatory, controlling & supervisory Authorities.
- The H.O.level & field level officers of the Cooperation Department, Government of Maharashtra.
- The Members of the Board of Administrators of the WDCC Bank.
- The Members of the Monitoring & Review Committee of the WDCC Bank.
- The Chief Executive Officer (CEO) & other field level officers of the WDCC Bank.

Collection of Secondary Data:

- The secondary data has been collected from different sources.
- Annual reports of the WDCC Bank.
- From other relevant available reports/literature of the WDCC Bank.

DCCBs in Maharashtra:

In Maharashtra,(31/3/2021) there are 31 DCCBs, of which 10 were making losses. Percentage of overdues to outstanding in respect of all DCCBs was

29.22%. It means there are huge overdues which have become Non Performing Assets (NPAs). Presently, eight DCCBs in Maharashtra, namely Nagpur, Wardha, Buldhana, Jalana, Osmanabad, Beed, Dhule-Nandurbar & Nasik are financially very weak. Agriculture credit delivery in the areas of operations of these banks is severely affected. The figures in the table below give general understanding of working of DCCBs in Maharashtra State.

Financial Status of DCCBs in Maharashtra (31/03/2021) (Rs.in lakh)

Item	2001	2020	2021
No. of Banks	30	31	31
No. of Branches	3718	3700	3722
Societies as members (000)	85	111	110
Individuals as members (000)	29	90	90
Share Capital	68315	370931	364898
Own funds	240999	1820882	2024291
Deposits	1786285	9154073	9887658
Borrowings	244574	653695	910188
Demand (Principal)	15947	3069616	2998919
Recovery (%to demand)	505334 (70.6%)	1576229 (51.35%)	2056984 (68.59%)
Overdues (& % to outstanding)	201613 (14.8%)	1511101 (26.26%)	1864939 (29.22%)
Banks in Profit	22	20	21
Banks in Losses	8	11	10

Source: Cooperative Movement At A Glance -2021

Out of 20836 PACS in Maharashtra, 9912 were in profit & 10421 were in losses.(31/3/2021)

Why to study the WDCC Bank?

Present research study is related to the working of the WDCC Bank as representative case of other weak DCC Banks. The Wardha DCC Bank is one of the eight financially weak banks in Maharashtra. Presently, it is going through the process of revival/strengthening. As a result of the initiative of the State government & efforts being put by the bank administration the bank is showing some positive indications to get itself revived.

Therefore, WDCC Bank has been selected to conduct this study, as a representative study of the other weak DCC Banks.

About Wardha District:

Wardha is one of the districts in the Maharashtra state of India. It is a part of Vidarbha region & Nagpur Division of Maharashtra State. It is comparatively small by area; having eight talukas. It is, centrally located in the country & well connected by roads & rail services. Its economy is totally agro based.

Some salient features of the Wardha District:

Some features of the district, which may prove to be the potential for increasing business of the bank, are as below.-

- Total Population-about 13 lakh
- Literacy -87%
- Villages-1376
- Total Cooperatives-953
- Municipalities-6
- Gram Panchayats -517
- Schools, Colleges, University etc-2660
- Area under cultivation -4.61 lakh Hr.
- Number of khatedars 2.20 lakh
- Number of members of PACS.....
- Industrial Estates, Industries, Tourist spots etc-130

Some other particulars of the WDCC Bank:

- Establishment of the bank-21/10/1912.
- Banking License -2/5/2016.
- Reserve Bank of India restrictions(S.22A)-9/5/2014.
- RBI Notice -(S. 22)-15/9/2023.
- Reply by the WDCCB-12/10/2023.
- Board of Administrators appointed w.e.f.-24/4/2015
- Proposal dt.18/8/2022 for exemption u/s 11(1) 31/3/2027.
- Action Plan submitted on 7/9/2022
- No.of branches 8+1 HO(Earlier-34)

Financial Position of WDCC Bank

(Rs. in Lakh)

Sr. No.	Particulars	As on 31/3/2019	As on 31/3/2022	As on 31/3/2023	As on 31/3/2024	As on 30/9/2024
1	Share Capital (Of which GoM)	3596.38 (719)	3597.03 (719)	3597.43 (719)	3597.72 (719)	3597.72 (719)
2	Total Funds	15928.53	16070.58	16427.50	16433.19	
3	Total Deposits	34863.76	34817.12	34405.36	33862.94	33999.00
4	Borrowings	Nil	Nil	Nil	Nil	Nil
5	CRR(4.50%)	5.18	4.78	5.51	16.27	21.46
6	SLR(18%)	32.94	25.86	45.96		
7	Investment	20392.80	25453.58	30364.90	30868.18	32800.00
8	Loans Outstanding	29865.24	29818.59	29544.05	28190.29	27300.00
9	Recovery (June End) (%)	3.60	2.45	6.56		
10	C.D.Ratio(%,)	85.66	85.64	85.87	83.25	81.88
11	Total Employees	99	91	89	83	76
12	Net Worth	(-)13512.38	(-)2659.38	(-)900.06	1748.33	2422.00
13	Profit for the year	(-)3689.13	482.61	1402.59	2642.40	370.84
14	Gross NPA(%,)	98.41	95.36	95.25	94.47	93.10
15	NPA recovery	1033.98	416.05	392.65	1558.73	
16	CRAR(%)	(-)169.55	(-)24.90	(-)9.11	16.27	21.46
17	Accumulated losses	33010.44	22327.58	20924.99	18282.59	17900.00
18	Provisions made for Doubtful Debts	29351.65	28435.10	28100.25	26625.50	
19	Provisions made for Overdues Interest	7507.92	7125.60	7014.75	6912.36	

Source: Report received from the WDCC Bank

Action plan -status as on 31/3/2024 :

- Govt.Financial Assistance as share capital-Rs.16121.30 lakh from
@ Government of India -Rs.3325.00 lakh
@ Govt.of Mah.-12796.30 lakh
- No.of Depositors -143134
- Loan waiver receivable from Government of Maharashtra-Rs.60.34 Cr.
- Imbalances Rs.130.83 cr.(297 PACS)

About Wardha DCC Bank :

Out of 31 DCC Banks in Maharashtra, eight banks are financially very weak. The WDCC Bank is one of these weak banks. The weaknesses of the bank are due to administrative deficiencies & financial irregularities.

Present Status of working of WDCC Bank:

Most of the banking operations have come to a standstill. Since the year 2012, ST loan disbursement was stopped. All PACS in the district have become dysfunctional. Earlier ST agriculture loans disbursed by the bank have become overdue & NPAs. Recovery of all types of loans is very poor. The deposits of a number of individual depositors & primary cooperatives in the district are blocked with the bank. Accumulated losses are huge. Out of earlier 34 functional branches, only 8 taluka level branches are retained / operational. New deposits are not incoming.

Statutory action by the regulator:

In place of the earlier Board of Directors a board of administrators has been appointed by the Government. The RBI issued show cause notices to the bank, asking, as to why the banking licence of the bank should not be cancelled. In compliance, the bank has submitted its explanations to the RBI & Action Plan to the NABARD.

Approach of the Government for revival of the Bank:

- (1) The Government of India & Maharashtra Government extended financial support of Rs.16121.30 lakh, to the bank.
- (2) The State Government has appointed a Monitoring & Review Committee, headed by the Collector, Wardha, to monitor the work of revival of the bank & to provide guidance to the Board of Administrators.

Indications of improvement in the working of the Bank:

The bank has adopted various approaches & practices to improve its working. As a result of that, it is showing some positive indications of improvement in its working & strengthening.

The measures taken by the bank :

- Bank is disbursing secured non-agriculture loans/advances.
- Out of earlier 34 branches only 8 branches at Taluka level are retained.
- It has re-launched crop loan disbursement after a gap of 12 years.

In the year 2024-25, since the PACS are not eligible to avail loan, the bank has disbursed direct Kharif crop loan of Rs.185.40 lakh to the 377 borrowers. Due to the limited availability of funds the bank restricted disbursement limit upto Rs. 50,000/- per borrower. Making special efforts, new deposits of about Rs. 10 crore are collected during 2024, restricting contribution upto Rs.5 lakh per depositor, so as to cover the deposits under the DICGC insurance cover.

- An Action plan has been submitted to the NABARD & that is being implemented.
- SLR/CRR, Capital to Risk Assets Ratio (CRAR) level are maintained at the expected level.
- Bank has earned profit of Rs. 2642.40 lakh.(2023.24)
- Branch buildings are being renovated obtaining the financial support from the local institutions.
- Solar energy system of 15KW capacity, installed through the Collectorate Wardha, saving the energy bill liabilities.
- Recovery of overdue loans is improving gradually.
- Public awareness is being created & convinced to have banking transactions with the bank.
- RBI has issued Magnetic Ink Character Recognition (MICR) code to the Bank.
- SCB has issued Indian Financial System Code (IFSC) for the H.O.
- SCB is playing a role as a guardian to the bank & extending technical support, assistance for preparation of policy of the bank & impart training to the staff of the bank etc., free of any cost.
- Meetings at village/ societies levels are being organised to create awareness & atmosphere in favour of the bank.
- Administrative efficiency is being improved.

As a result of the approach of the Government & proper practices being adopted as above, by the bank, it is showing a good improvement in its working.

Particulars of Non-agriculture loans

(Rs in lakh)

Sr. No.	Year	No. of borrowers	Amount of loan
1	2021-22	415	1724.65
2	2022-23	402	784.65
3	2023.24	379	1648.60
4	Total	1196	4155.90
5	Outstanding as on 31/03/2024	589	11460.14

Source: Report received from the WDCC Bank

Financial Projection for the year-2024-25

(Rs.in Lakh)

Sr No	Particulars	31/3/2024 (Actual)	31/03/2025 (Projection)
1	Deposits	33862.94	35739.19
2	Loans & Advances	28190.29	30260.67
3	Total Investments	15521.76	20285.68
4	CD Ratio (%)	83.25	75.00
5	Gross NPA	26631.21	26211.21
6	Net NPA 5.71	—	—
7	CRAR(%)	16.27	17.50
8	Accumulated losses	18282.59	17107.59
9	NPA Recovery	1558.73	420.00
10	Net Profit	2642.40	1175.00

Source:- Report received from the WDCC Bank.

Compilation & Analysis of Data:**Table 1****About whether they are members of the bank & availing loans etc.**

Sr. No	No. of Responses Received	Whether are Members of the bank	Whether they are non-members of the bank	If members of the bank & availing loans through the PACS	If, are members of the bank but not availing loans directly from the bank or through PACS
1	Societies / Institutions (150)	128(85.3%)	22(14.7%)	-----	-----
2	Individual Depositors / Borrowers (150)	51(34%)	51(34%)	38(25.3%)	10(6.7%)

The figures in the table above show that the cooperatives/institutions, individual depositors & borrowers are members or non-members of the bank.

If, are members of the bank availing loans either directly from the bank or through the PACS.

Table -2**Availment of various services by the bank**

Sr. No.	Total Responses received	Types of Societies & depositors/Borrowers			
		Only Depositors	Only Borrowers	Obtaining loans/bank guarantees	Whether earlier made representation on the BoDs of the Bank
1	Societies/Institutions (150)	86 (57.3%)	44(29.3%)	-----	14(9.3%)
2	Depositors/Borrowers (150)	88 (58.7)	9(6%)	36(24%)	17(11.3%)

The figures in the table above show that, the respondent cooperatives/institutions & individual depositors/borrowers who are depositors, borrowers & whether earlier they represented the Board of Directors of the bank.

Table 3**Effect of the stagnancy of the Bank on various stakeholders**

Sr. No.	Total Responses received	Effect of stagnancy of the bank on various stakeholders			
		New deposits could not be made	Earlier deposits blocked in the bank	Could not avail loans	Individual banking Transactions affected due to non availability of banking facilities at local level
1	Societies/Institutions (150)	36(24%)	36(24%)	44(29.3%)	34(22.7%)
2	Depositors/Borrowers (150)	51(34%)	26(17.3%)	56(37.3%)	17(11.3%)

The figures in the table above show that, during the period of stagnancy of the bank, the cooperatives/institutions, individual depositors, borrowers could not make any fresh deposits, their earlier deposits are blocked in the bank, they could not avail any loan from the bank & make banking transactions, because locally banking facilities were not available.

Table 4: During the stagnation of the bank, which alternative options were used by the Stakeholders

Sr. No.	Total Responses received	Which alternative options were available when operations of the WDCC Bank were stagnant			
		Transacted with Nationalized Banks	Transacted with other private banks	Transacted with other coop. credit Societies	No transactions were made with any other Bank/Societies
1	Societies/Institutions (150)	82(54. 7%)	00	00	56(37.3%)
2	Depositors/Borrowers (150)	102(68)	12(8%)	00	31(20.7%)

The figures in the table above show that, during the period of stagnancy of the bank a few cooperatives/institutions, individual depositors, borrowers could make some transactions with the Nationalized Banks, Private Banks or cooperative credit Societies. Number of them could not make any banking transactions with other banks or financial institutions.

Table 5

Sr. No.	Total Responses received	Importance of DCCB in the economy of the District			
		Its backbone of the district economy	It facilitates banking services to the societies /depositors /borrowers	It provides loans & refunds deposits	Since, other banks/societies are functional, it didn't affect any transactions
1	Societies/Institutions (150)	110(73.5%)	25(16.7%)	00	00
2	Depositors/Borrowers (150)	98(65.3%)	34(22.7%)	12(8%)	00

The figures in the table above show that, the majority of the cooperatives/institutions, individual depositors/borrowers stated that the WDCC Bank is a backbone of the economy of the district & it provides various banking services to the cooperatives & individuals in the district.

Table 6**How there is a need for revival /strengthening of WDCC Bank**

The figures in the table above show that, majority of the cooperatives/

Sr. No.	Total Responses received	How there is a need of revival/strengthening of WDCCBank			
		Earliest Revival / strengthening is desired	It will facilitate to make deposit transactions	It will facilitate to avail loans	It will facilitate Representation on the BoDs of the Bank
1	Societies/Institutions (150)	111(74%)	19(12.7%)	14(9.3%)	00
2	Depositors/Borrowers (150)	97(64.7%)	40(26.7%)	10(6.7%)	00

institutions, individual depositors/borrowers expressed their desire for earliest revival/ strengthening of the bank , so that the bank can facilitate depositors to make fresh deposits in the bank, & will facilitate provision of loans to the needy borrowers.

Table 7: Probable role to be played by the stakeholders in the revival / strengthening of the bank

Sr. No.	Total Responses received	What contribution will be made by the stakeholders in the revival/strengthening of the WDCC Bank			
		Will encourage new depositors to make deposits	Will encourage existing depositors to continue their transactions with the Bank	Will individually make deposit transactions with the bank	Will avail loans from the bank as per requirement
1	Societies/Institutions (150)	55(36.7%)	26(17. 3%)	34(22.7%)	35(23.3%)
2	Depositors/Borrowers (150)	67(44.7%)	30(20%)	34(22.7%)	19(12.7%)

The figures in the table above show that, to be helpful for the revival & strengthening of the bank, the cooperatives/institutions, individual depositors/borrowers will make deposits in the bank, avail loans from the bank as per their requirement,& play a role to encourage people to make fresh deposits in the bank, to encourage existing depositors to continue depositing their savings with the bank.

Table 8: Role of loan defaulters in the revival & strengthening of the bank

Sr. No.	Total Responses received	If Society/borrower is defaulter of earlier loans, what steps will be taken by it/him			
		Repayment will be made immediately	Extension for repayment/ restructuring will, be sought	Not in a position to make repayment	Benefit of OTS will be taken & account will be settled
1	Societies/Institutions (150)	99(66%)	14(9.3%)	00	31(20.7%)
2	Depositors/Borrowers (150)	124(82.7%)	00	00	15(10%)

The figures in the table above show that, some of the cooperatives/institutions, individual depositors/borrowers will arrange to repay their defaulted loans immediately, some of them stated that, they will ask for further extension of period to the repayment of loans or ask for getting the overdue loans restructured, some of them have stated that they will avail facility under the OTS scheme of the bank & will get their loan accounts settled.

Table 9: How stakeholders were affected due to stagnancy of the WDCC Bank

Sr. No.	Total Responses received	How stakeholders were affected due to stagnancy of the WDCC Bank.			
		PACS in the district became dis-functional	All loans against societies / borrowers became overdue	All banking transactions of the members societies /individuals got affected.	Progress of Societies / individual members etc was hampered.
1	Societies/Institutions (150)	42(28%)	42(28%)	30(20%)	36(24%)
2	Depositors/Borrowers (150)	64(42.7%)	31(20.7%)	30(20%)	25(16.7%)

The figures in the table above show that, the cooperatives/institutions, individual depositors/borrowers stated that due to the stagnancy of the WDCC Bank, almost all PACS in the district became stagnant, earlier outstanding loans became overdue, transactions of all the member societies were affected & their individual progress was hampered.

Table 10: Effect of stagnancy of the bank on the implementation of Government Schemes

Sr. No.	Total Responses received	Effect of stagnancy of the bank on the implementation of Government Schemes of financial assistance etc.			
		Difficulty in getting benefits of Interest subsidy etc., when agriculture loan is timely repaid.	Faced difficulties in availing loans from other banks	Societies could not become eligible to avail benefits of GoI initiatives	Being defaulter of WDCC Bank, other banks refused to disburse loans
1	Societies/Institutions (150)	33(22%)	69(46%)	15(10%)	33(22%)
2	Depositors/Borrowers (150)	59(39.3%)	67(44.7%)	00	18(12%)

The figures in the table above show that, due to stagnancy of the bank, the cooperatives/ institutions, individual depositors/borrowers had to face number of difficulties in getting interest

subsidy benefits etc. under government scheme, against their timely repayment of crop loans, they faced difficulties in availing fresh loans from the other banks, they could not become eligible to be selected to get benefits under the GoI initiatives,& being defaulters of the WDCC Bank, other banks in the district refused to disburse loans to them.

Table 11: How stakeholders reacted about the present process of revival & strengthening of the bank

Sr. No.	Total Responses received	How stakeholders reacted about the present process of revival & Strengthening of the WDCC Bank			
		Regular transaction s will be made if their earlier deposits are repaid.	Considering the poor back history of the bank, there is a hesitation to make fresh transactions with the bank	Bank has restarted disbursement of crop loan (direct/through eligible PACS) is a matter of great satisfaction	Will start making new deposits in the bank & participate in the revival /strengthening process of the bank
1	Societies/Institutions (150)	76(50.7%)	00	31(20.7%)	42(28%)
2	Depositors/Borrowers (150)	88(58.7%)	00	31(20.7%)	26(17.3%)

The figures in the table above show that, the cooperatives/institutions, individual depositors/borrowers stated that, if the bank is revived, strengthened & if their earlier deposits are refunded, they will continue again to make all banking transactions with the WDCC Bank, also it is a matter of great satisfaction that the bank has started disbursing Short Term (crop loan) loan to the farmers through the eligible PACS or directly to the borrowers, if respective PACS were not eligible to avail loan limits, they will start making fresh deposits with the bank & will participate in the revival & strengthening process of the bank.

Table 12: General opinions & expectations expressed by the stakeholders regarding present revival/ strengthening process of the bank

No. of responses received.	General opinions & expectations expressed by the stakeholders regarding the present process of Revival & Strengthening of the WDCC Bank					
	Revival /strengthening of the bank may be made at the earliest	If their earlier deposits are repaid, they will cooperate in the revival strengthening process	Some of the old branches which are closed down may be restarted	RTGS /NEFT/Online banking facilitation may be started soon	Will cooperate for recovery of loans	New deposits will be made & fresh loans will be availed
Societies (150/109)	47(43%)	13(12%)	5(5%)	5(5%)	11(10%)	3(3%)
Depositors /Borrowers (150/113)	52(47%)	28(26%)	8(7%)	12(11%)	4(3%)	1(0%)

The figures in the table above show that, the stakeholders have expressed their opinions stating that, they desire early revival & strengthening of the bank, if their earlier deposits are paid by the bank they will fully cooperate & participate in the revival & strengthening process of the bank, they expect re-opening of some of the old branches which have been closed down, they desired that revival/strengthening of the bank should take with immediate effect & bank should immediately start providing banking facilities such as Real Time Gross Settlement (RTGS), National Electronic Funds Transfer (NEFT), Online payments etc.,

They also stated that, as a part of revival/strengthening of the bank, they will cooperate in the process of recovery of the overdue loans. Some of them have stated that they have already started making fresh deposits in the bank & availing loans from the bank.

Findings:

- Members & non-members, availing & non-availing loans, which sometimes represented the Board of Directors of the bank, have responded.
- During the stagnancy of the bank, respondents could not make any fresh deposits with the bank.
- Their earlier deposits are blocked in the bank.
- Could not avail any loan from the bank.
- Locally, other banking facilities were not available.
- All their banking operations were affected.
- They had to make transactions with the Nationalised Banks or Private Banks.
- Some of them could not make any banking transactions with other banks or financial institutions.
- WDCCBank is a backbone of the economy of the district.
- It provides various Banking services
- Expressed desire for early revival/strengthening of the bank
- Bank to facilitate depositors to make fresh deposits.
- Bank to facilitate provision of loans to the needy borrowers.
- Respondents will make fresh deposits in the bank.
- Respondents will start availing loans from the bank as per their requirement
- They will play a role to encourage other people to make fresh deposits in the bank,
- They will encourage existing depositors to continue depositing their savings with the bank,
- The defaulting borrowers will arrange to repay defaulted loans immediately,
- The defaulting borrowers will ask for further extension to the repayment of loans
- The defaulting borrowers will ask for restructuring of the loans,
- The defaulting borrowers will avail facility under the One Time Settlement (OTS) scheme & get the loan accounts settled.

- Due to the stagnancy of the WDCC Bank, almost all PACS in the district became stagnant,
- Earlier outstanding loans of the bank with the borrowers became overdue,
- Banking transactions of all the member societies were affected
- Due to the stagnancy of the bank, their individual progress was hampered.
- Respondents had to face number of difficulties in getting interest subsidy benefits etc. under government schemes, against their timely repayment of crop loans,
- They had to face difficulties in availing loans from the other banks,
- They could not become eligible to be selected under the GoI initiatives,
- Other banks in the district refused to disburse loans to them.
- If earlier deposits are refunded by the bank, they will restart all banking transactions with the bank.
- Newly disbursing Short Term (coop loan) loans to the farmers through the eligible PACS or directly to the Borrowers is a good start.
- They will make fresh deposits with the bank
- They will participate in the revival & strengthening process of the bank.
- They desired early revival & strengthening of the bank,
- Their earlier deposits should be refunded first
- They will fully cooperate & participate in the revival & strengthening process of the bank.
- Desired re-opening of some of the old branches, which have been closed down.
- Revival/strengthening of the bank should take place with immediate effect
- Banks should start providing banking facilities, such as RTGS, NEFT, Net Banking , Mobile Banking, ATM, ECS, Online Payments etc., immediately.
- They will cooperate in the process of recovery of the overdue loans.
- Some have already started making fresh deposits & availing fresh loans from the bank.

Action points /Suggestions :

Approaches to be adopted by the Bank :

- Proper planning & use of available manpower & funds.

- Formation of core group committee at Head Office level to monitor Business Development Plan (BDP) implementation
- Funds raising, including share capital
- Image building of the bank
- Creating confidence amongst members/depositors borrowers/all cooperatives
- Treating a Branch as a Bank'. Prepare branch wise BDPs/ fix targets, arrange frequent visits & review of branches, appoint guardian officers
- Encouraging depositors to make fresh deposits as Current Accounts & Savings Accounts(CASA).
- Arrange to refund earlier deposits
- Comply statutory provisions (CRR/SLR/CRAR)
- Providing loans to the needy borrowers(gold/salary/retail finance/Joint Liability Group (JLG)
- Expand transactions with Urban Cooperative Banks(UCBs)/Urban Cooperative Credit Societies (UCSs)/other coops
- Consider extension to the repayment /restructuring of loans,if deserves
- Concentrate on recovery/reduce NPAs/initiate coercive actions, arrange personal visits to the defaulters, extend OTS facilities
- Maintain C:D Ratio
- Disburse Short Term (coop loan) loan to the farmers through PACS or through direct method.
- Consider re-opening of some of the old branches & provide banking services at local level.
- Use Information Technology (IT) to provide RTGS, NEFT, Online payments, door step banking etc. services.
- Human Resources (HR) development ,prizes ,staff welfare activities, events celebration, students/women/consumer meets may be arranged
- Reduce overhead expenses
- Financial literacy, training & education
- Encourage participation of PACS & Group Secretaries of PACS.
- Start small activities to earn additional income ,such as -Micro Automated Teller Machines (ATM), Mobile Van ,Quick Response Code, Short Short Message Service (SMS),Pradhan Mantri Suraksha Bima Yojana

(PMSVY), Pradhan Mantri Jivan Jyoti Yojana (PMJJY), Credit Information Bureau (India) Limited CIBIL reports, 7/12 extract, Locker, processing fees, Electricity Bill Collection.

Government/Regulatory Authorities:

- Extending support for the early revival/strengthening of the bank
- Release of interest subsidy benefits etc., under government schemes
- Facilitate cooperatives to be eligible to avail benefits under the Government of India initiatives.

Conclusion:

Considering the observations of the case study of the WDCC Bank as above, it can be stated that, an application of proper Approaches & Practices by the stakeholders, will be helpful to achieve financial Resilience & sustainable development of the weak DCC Banks & it will be ultimately helpful for the survival, progress & to ensure orderly development of the cooperative in the respective districts.

References/ Sources :

- (1) Reports received from the WDCC Bank
- (2) At a Glance -Maharashtra, Annual Report published by the RCS,M.S.,Pune.
- (3) High Powered Committee Report
- (4) National Database(Website)
- (5) Responses to the questionnaires received from the respondents.



Success Keys for Cooperative Business Model - Special reference to Sugar Cooperatives

D. M. Raskar*, V. D. Gaikwad**

Abstract:

The cooperative sector in India has 120 year's history. Particularly after independence cooperative has contributed lot in Indian National Development, particularly in rural area. The establishment of Separate ministry of cooperation in 2021 by Government of India highlights the importance of cooperatives at National level. No doubt this will strengthen the cooperative movement. The cooperatives focuses on people based socio-economical growth of marginalized community.

The sugar cooperatives contribute significantly in vast network of cooperative societies spread all over the country. The sugar cooperatives are showing it's existence in 21 states. Which includes Uttar Pradesh, Maharashtra and Karnataka as major Sugar producing states. The first cooperative sugar factory in India is establishment in 1952 at Pravaranagar, (Maharashtra) under the leadership of Padmashri Dr. Vitthalrao Vikhe Patil with able guidance of Dhananjayrao Gadgil. This factory was curiously visited by then Prime Minister of India Hon. Jawaharlal Nehru.

After that the establishment of Cooperative Sugar factories had not only taken the speed but registered the growth of that particular rural area. Up to year 2000 the sugar cooperatives had enjoyed golden days. There are total 754 registered sugar factories in India. At present out of 330 registered cooperative sugar factories in India, 212 factories are in operation and 118 sugar factories are not in operation. The percentage of operational cooperative sugar factories is 28.12% out of total sugar factories in India including Private sugar factories. This percentage is to be increased to 50% in first step.

Now, let us focus on the non-operational cooperative sugar factories and the season for their financial sickness. The study shows the following reasons -

- * CEO, Shreenath Mhaskoba Sakhar Karkhana Ltd, Patethan, Dist. Pune, Maharashtra
- * AM, Shreenath Mhaskoba Sakhar Karkhana Ltd, Patethan, Dist. Pune, Maharashtra

1. *Financial Mismanagement.*
2. *Lack of Governance*
3. *Intermixing of profession and politics*

It does not mean all cooperative sector sugar factories are in efficient and non-professional. because many of the sugar cooperatives in operation are performing as good as corporate sector. They are contributing significantly in the Economical, Educational and Healthcare sectors in rural area. The speciality of sugar Industry is that, the Sugar Industry can only be established in rural area as the raw material (sugarcane) cannot be stored for longer period due to its perishable nature. This leads to Silent growth of surrounding area of sugar factory.

If we analyse the success and failure of cooperative sugar factories we can find the reasons for the same. This analysis will help us to revive the non-operational cooperative sugar factories, to operate sick units efficiently and to promote the establishment of new co-operative sugar factories in the states having potential of sugarcane growing.

Now a days the sugar industry is not only supposed to produce sugar, but it became a “Bio-Energy Hub” and sugarcane growing farmer became a “Bio-Energy producer (Urja Data)”. Sugar Industry is backbone of Ethanol Blending Program (EBP), National Biofuel policy and National Green Hydrogen Policy of Government Of India. This is the transformation of sugar Industry towards the sustainability. Only the task remained is to grab this golden opportunity by cooperative sector. No doubt it is highly possible by taking some necessary actions seriously.

In this paper we have discussed the success keys came to know after long experience and comparative study of the both cooperative and private sectors. We have focussed on Finance, Governance, cost effectiveness and Human resource management etc.

Key Words:

Cooperative sugar factories, Agro based industry, Welfare in Rural Development, Backbone of Indian Economy, Socio-economic Growth of marginalized community.

Introduction:

Sugar industry is one of the largest agro based processing industries in India. Sugar, by its value addition character, has made itself a very powerful tool of economic and social development in the rural areas of the country. The

industry being located in rural areas closely associated with the economic welfare of the rural population.

As the saying goes, “There is no progress without cooperation”, so the cooperative sugar factories made good progress in the initial period. But looking at the current situation, the number of private sugar factories increasing as compared to the cooperative factories. It is necessary to adopt acceptable things from “corporate culture” to run cooperative sugar factories efficiently. If private sugar factories can progress, then let's find out why cooperatives cannot.

For our study and comparison purpose the latest data of sugar factories in India from both cooperative & private sectors is given in Table No. 1

Table No. 1: Sugar Factories In India

Sr. No	State Name	Co-Operative		Private Sector		Total		All Total
		Operative	In-Operative	Operative	In-Operative	Operative	In-Operative	
1	Andhra Pradesh	4	10	9	9	13	19	32
2	Assam	0	2	0	1	0	3	3
3	Bihar	0	15	10	4	10	19	29
4	Chattisgarh	4	0	0	0	4	0	4
5	Goa	0	1		0	0	1	1
6	Gujarat	15	10	2	1	17	11	28
7	Haryana	10	1	4	2	14	3	17
8	Karnataka	15	3	64	11	79	14	93
9	Kerala	0	1	0	0	0	1	1
10	Madhya Pradesh	16	5	2	4	18	9	27
11	Maharashtra	97	23	126	7	223	30	253
12	Nagaland	0	1	0	0	0	1	1
13	Orissa	0	3	0	3	0	6	6
14	Puducherry	0	1	0	1	0	2	2
15	Punjab	9	6	7	1	16	7	23
16	Rajasthan	0	1	1	1	1	2	3
17	Telangana	0	5	7	1	7	6	13
18	Tamil Nadu	11	5	16	14	27	19	46
19	Uttarakhand	3	1	4	2	7	3	10
20	Uttar Pradesh	28	23	96	14	124	37	161
21	West Bengal	0	1	0	0	0	1	1
Total		212	118	348	76	560	194	754

No. of Cooperative Sugar Factories in India - 330

No. of Pvt. Sector Sugar Factories in India - 424

Total No. of Sugar Factories in India - 754

Undesired Practices found in some Cooperative sugar factories in India:

1. Lack of proper planning.
2. Lack of good production management.
3. Political interference.
4. Lack of professional management.
5. Lack of proper utilization of manpower.
6. Lack of good productivity.
7. Lack of cost awareness.
8. Lack of financial self sufficiency
9. Lack of marketing Techniques.
10. Recruitment of excess employees.

Table: 2

Merits and Demerits of Cooperative Sugar Factories

Merits	Demerits
1. All member farmers are also involved in decision making process.	1. No stability. Need to contest elections.
2. Establishment is very easy with 10% share capital only.	2. Possibility of Misutilisation of funds for election by ruling management.
3. State Govt. in supporting financially by way of issuing Guarantee to loans	3. Decision making process is lengthy & time consuming.
4. In critical situation State Govt. supports by various subsidies / Packages.	4. Unhealthy political oppose hampers the growth of the unit.
5. Social Developments of the surrounding area.	5. Poor control on expenditures.

Requirements for betterment:-

1. If management practices are good then cooperative factory will perform satisfactory.
2. One man show with good leadership gives good performance.
3. Some Coop. Sugar factories have already started operations at overseas.
4. Should not be politically affected.

Mythology:

Let's see what cooperative sugar factories can do to improve productivity

There are three important “3M”s in Sugar Industry.

1. Man (Man Power)
2. Machine (Equipment's)
3. Money (Profit)

If we pay sufficient attention towards first two ‘M’s i.e. Man & Machine, we can maximize third ‘M’ i.e. money (Profit) by increasing productivity.

How it increases productivity and there by profitability?

1) Machine:

Max. Capacity utilization of machine lead to:

1. Avoiding further purchase of standby units afraiding of the failures. The proper maintenance and careful operation is the solution.
2. Management only permits to procure the equipment on confirmation that there is no any under capacity utilization.
3. Due to minimization of equipments the repair and maintenance and man power requirement is reduced.
4. In off season some machines like workshop machinery can be used in shifts. If time is available the work from outside industries can be done on chargeable basis.

2) Man power:

Max. Capacity utilization of man power will lead to :

1. Reduction in numbers of employees.
2. Reduction in salary and wages component of the cost of production per Ton of cane or per Qtl. of Sugar.
3. Relief from the industrial unrest.
4. Healthy relations between employees & Management.
5. Satisfied and motivated team of employees in the organization.

All above efforts lead to Man and Equipments which increases the productivity and profitability of the organization.

If all the possible efforts for maximization of capacity utilization are done, we can reduce the cost of repair and maintenance and salary & wages, which can be evidenced from the following table (3)

Table 3

Comparative Statement of cost involved per Ton of Cane Crushed for repair & maintenance & consumables and salary & wages for sugar factories in Pune District (M.S) for season 2019-20.

Sr. No.	Factory	Cash Conversion Cost Rs. Per M.T. of Cane						
		Power	Chem. & Consu.	Salary & wages	Packing	Repair & Maintenance	Over heads	Total Cash. Conversion Cost
1	SMSKL	8.00	25.00	198.00	35.00	70.00	105.00	441.00
2	Factory 2	0.0	46.46	314.57	39.25	46.99	149.84	597.11
3	Factory 3	17.08	36.73	243.28	39.72	109.38	107.45	553.65
4	Factory 4	37.04	29.35	579.42	39.75	148.10	132.53	966.19
5	Factory 5	0.0	27.11	223.87	33.92	87.97	96.31	469.18
6	Factory 6	8.67	26.70	241.14	40.41	99.55	105.18	521.65
7	Factory 7	29.47	25.34	332.66	37.05	61.52	110.58	596.62
8	Factory 8	8.84	26.34	322.91	49.95	90.90	40.54	539.50

Source : Data compiled by office of the VSI, Pune

Abbreviation – SMSKL- Shreenath Mhaskoba Sakhar Karkhana Ltd.

Comments on above Table:

1. The above data is just to have an overall idea.
2. Separate figures of repair and maintenance are not available, therefore expenditures under stores spares and chemicals is tabularized.
3. Still the analyses & classification of cost of production in Maharashtra is not yet streamlined. However, it is a matter of praiseworthy that the awareness is created.
4. In some of the factories so many jobs are done on contract basis. Therefore, cost does not reflect in salary & wages. It might be included in factory overheads.

Department wise exercise for Cost reduction & Revenue Enhancement:

The considerable cost reduction & Revenue enhancement with contribution of all departments that too without any major capital investment is possible by paying little bit more attention.

Needs:

- Management support.
- Resource availability.

- Delegation of power.
- Convincing skill.
- Positive attitude

What to do?

- Department wise SWOT analysis.
- Average figures of last three years of our own factory are to be considered as base data.
- Maximum & proper utilization of man & machine.
- Motivation of team.
- Close supervision.

Other measures:

- Installation of solar system based on Net metering policy of state Government.
- Rain water harvesting and water accounting.
- CCC – Carbon Credit Certification.

To be kept in mind:

1. This data is just for giving brief ideas of subject matter.
2. Factory to factory situation may vary, which will lead to deviation in calculations.

Assumptions:

1. Sugar Plant capacity 5000 TCD.
2. Total Crushing for season – 8 Lakh M.T. Crop Days – 160
3. Distillery Capacity – 120 KLPD. Crop days - $160+100=260$
4. Sugar Rate - Rs 3100 / Qtls. (MSP)
5. Ethanol rates as on 01-01-2025

Comments on below findings:

1. There is nothing new.
2. No major capital investment.
3. Need to pay more attention.
4. Every Department can contribute as per scope.

5. Follow “Administrative Model”
6. Considerable revenue addition per ton of Sugar cane crushed will help for FRP payment to farmers.
7. This type of exercise will never allow the cooperative sugar factories to become sick and forced to close.

**Department wise Revenue Enhancement (In Rs. Lacs) in case of
Shreenath Mhaskoba Sakhar Karkhana Ltd. Patethan (M.S.)**

Department	Action to be taken	Rs. in lacs	%
Engineering	Bagasse pol Reduction, Consumable Reduction, R & M Reduction, Increased Bagasse Saving and electricity export, Carbon Credit, Purchase Control etc.	342.20	22.04
Agriculture	Reduction in H&T, Supply of Fresh Cane, Maturity Wise Harvesting,	402.72	25.93
Accounts& finance	Reduction in WC, Reduction in Term Loan, Low cost Finance, Avoid Penalties, Avail Subsidies Timely.	240.00	15.45
Production	Reduction in loss of Sugar in Molasses, Filter Cake, Unknown losses, Chemical Consumption & Increase in 10% Bold grain Production.	105.60	6.80
Marketing	Increase in Average sugar sale Rate, Compost fertilizer rate, PDM rate etc.	90.50	5.83
Distillery	Alcohol Yield Enhancement by 5 Ltrs. per ton of feedstock, Chemical Consumption Reduction, Increase production of Bio-gas, CBG, PDM by extra efforts.	184.10	11.86
HR	Reduction of Salary and Wages,	80.00	5.15
Admin	Reduction in Admin Expenses	40.00	2.58
Store	Reduction in Inventory, Preservation of Stores Material	15.00	0.97
Civil	Reduction in Civil expenses	16.00	1.03
Sugar Godown	Reduce damages of Sugar, Reduction in PP Bags consumption for Re-bagging, Reduction in Tarpaulin Expenses.	10.80	0.70
IT	Reduction in IT Related expenses	8.00	0.52
Security	Control on theft	2.00	0.13
Miscellaneous	Reduction in General Expenses	16.00	1.03
Grand Total		1552.92	100.00

Important aspects for the smooth running of cooperative sugar factories:

1. Install all byproducts units.
2. Conversion cost should be reduced.
3. Effective production and marketing.
4. Control the mill and boiling house losses.

5. Control fixed and variable costs.
6. Control salary and wages by way of following staffing pattern strictly.
7. Inventory Management.
8. Cost Reduction and Revenue enhancement.
9. Use of Productivity Improvement Techniques.

Management Practices:

All know these techniques, but we have to try to remove the hurdles / barriers in implementation.

- 1) Kizen- Japanese Technique.
- 2) Six sigma.
- 3) SWOT Analysis of Person & Organization.
- 4) LIN.
- 5) Quality Circles.
- 6) 7 Statistical tools.
- 7) 5 'S'
- 8) TQM, TPM
- 9) Bench Marking.

Conclusion:

Efforts Good Management practices will lead to survival of Cooperative Sugar Factories in India. Now Sugar factory became "Power Centre". Sugar Industry will contribute lot in rural development of India. This is the right time to take a step ahead, to protect and propagate Cooperative Sugar Sector, as United Nations has declared 2025 as International year of Cooperatives.



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.

Membership Subscription (One time):

1.	Institutional Donor Member	Rs.20,000/-
2.	Individual Donor Member	Rs. 4,000/-
3.	Individual Life Member	Rs. 3,000/-

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Indian Society for Studies in Cooperation
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Publications of ISSC

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2. Proceedings and papers of 24th Annual National Convention, Pune
3. Proceedings and papers of 25th Annual National Convention, Gandhinagar
4. Sugar Cooperatives
5. Shamrao Vithal Co-operative Bank A Voyage Through A Hundred Years
6. Readings in Cooperation
7. Recent Trends in Cooperative Law and Micro Finance (Proceedings and papers of 28th Annual National Convention)
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