

Co-operative Society And Loan Management System

by

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Professional Masters in Information Technology

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DECLARATION

I hereby declare that this thesis is based on the results found by ourselves. Materials of work found by other researcher are mentioned by reference. This thesis, neither in whole nor in part, has been previously submitted for any degree.

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CERTIFICATE

The project titled “Co-operative Society And Loan Management System” submitted by Md. Hasibuzzaman, ID: 222149, Session: Summer-2022, has been accepted as satisfactory in partial fulfillment of the requirement for the degree of Professional Masters in Information Technology on the 3rd of January 2023.

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ABSTRACT

The Co-operative Society Management And Loan System is a comprehensive software solution created to streamline and automate the functions of Co-operative societies under the Bangladesh Rural Development Co-operative Division authority. This summary offers insights into its main features and advantages.

Co-operative societies are pivotal in sectors like agriculture, finance, and housing, fostering collaboration among members and fostering economic development. Yet, the management of administrative tasks and financial transactions within these societies can be intricate and time-intensive. The Co-operative Society Management System seeks to simplify these processes by providing an efficient and user-friendly platform.

Keywords: Coop, Co-operative Society Management System, Society Management System, cooperative and loan Management System and Samity Management System, planning and control system, coherence, efficiency, cooperative sector, cooperative associations.

LIST OF ABBREVIATIONS

| | |
|------------|-------------------------------------|
| IIT | Institute of Information Technology |
| JU | Jahangirnagar University |
| IIT | Institute of Information Technology |
| IIT | Institute of Information Technology |
| QoS | Quality of Service |

LIST OF NOTATIONS

| | |
|---------------|--------------|
| α | Define alpha |
| \max | maximum |
| $\cos \theta$ | maximum |
| x | maximum |

LIST OF FIGURES

Figure

LIST OF TABLES

Table

TABLE OF CONTENTS

| | |
|---|------|
| DECLARATION | ii |
| CERTIFICATE | iii |
| ACKNOWLEDGEMENTS | iv |
| ABSTRACT | v |
| LIST OF ABBREVIATIONS | vi |
| LIST OF NOTATIONS | vii |
| LIST OF FIGURES | viii |
| LIST OF TABLES | ix |
| CHAPTER | |
| I. Introduction | 1 |
| 1.1 Overview | 1 |
| 1.1.1 Purpose | 1 |
| 1.2 The History of Co-operative Societies in Bangladesh | 1 |
| 1.2.1 Pre-independence Period | 2 |
| 1.2.2 Post-independence Era | 2 |
| 1.3 Aims of Co-operative Societies in Bangladesh | 2 |
| 1.4 Motivation | 3 |
| 1.5 Findings of Our Study | 4 |
| 1.6 Problems of Cooperatives in Bangladesh | 7 |
| II. Literature Review | 9 |
| 2.1 Definition of Co-operative society: | 9 |
| 2.2 Seven Co-operative features: | 9 |
| 2.3 History of Cooperative Movements | 10 |
| 2.4 Cooperative Movement in India | 10 |

| | |
|--|-----------|
| 2.5 Cooperatives in Bangladesh | 11 |
| References | 13 |
| III. System Model | 14 |
| 3.1 Proposed Architecture | 14 |
| IV. Algorithm Analysis | 15 |
| 4.1 Traffic Analysis | 15 |
| V. Performance Analysis | 16 |
| 5.1 Fuzzification | 16 |
| VI. Discussion and Conclusion | 17 |
| 6.1 Limitations of Co-operative Society Management Systems . . | 17 |
| 6.2 Future-Oriented Plan for Co-operative Society Management . | 18 |
| 6.3 Conclusion | 18 |
| References | 19 |

CHAPTER I

Introduction

1.1 Overview

The introduction of a Co-operative Society Management System marks a significant leap in the efficient and organized management of Co-operative societies. Co-operative societies play a vital role in various sectors, including agriculture, finance, and housing, by fostering collaboration among members and promoting economic development. However, managing the diverse functions and operations of these societies can be complex and demanding. This introduction provides an overview of the purpose, features, and benefits of such a system.

1.1.1 Purpose

The Co-operative Society Management System is meticulously crafted to cater to the distinctive needs and challenges encountered by Co-operative societies. Its core objective is to simplify and automate the administrative, financial, and member-centric processes within a Cooperative society. Through this, the system aims to elevate efficiency, transparency, and overall performance, providing a comprehensive solution tailored to the intricate requirements of Co-operative societies.

1.2 The History of Co-operative Societies in Bangladesh

The concept of Co-operative societies has a deep-rooted history in Bangladesh, dating back to the pre-independence period and gaining significant momentum in the post-independence era. Here's a brief background on Co-operative societies in Bangladesh:

1.2.1 Pre-independence Period

Co-operative societies in what is now Bangladesh can trace their origins to the British colonial period. During this time, Co-operative movements began to take shape, primarily in rural areas. These early Co-operatives aimed to address the economic challenges faced by farmers and rural communities. However, the concept remained somewhat limited in scope.

1.2.2 Post-independence Era

After gaining independence from Pakistan in 1971, Bangladesh faced numerous socio-economic challenges. Co-operatives were seen as a means to empower rural communities, alleviate poverty, and promote economic development. The government of Bangladesh began to actively promote and support Co-operative initiatives as part of its socioeconomic development strategy.

Co-operative societies in Bangladesh have a diverse history and have played a significant role in addressing rural and urban development challenges. With ongoing efforts to overcome challenges and promote transparency, Co-operatives continue to be a valuable instrument for socio-economic development and poverty reduction in the country.

1.3 Aims of Co-operative Societies in Bangladesh

The aims of Co-operative societies in Bangladesh are multifaceted and are aligned with socio-economic development, poverty reduction, and the empowerment of various segments of society. Here are the primary aims of Co-operative societies in Bangladesh:

- 1. Poverty Alleviation**
- 2. Rural Development**
- 3. Agricultural Advancement**
- 4. Financial Inclusion**
- 5. Empowerment of Women**
- 6. Housing and Urban Development**
- 7. Entrepreneurship Development**

8. **Social Welfare**
9. **Community Building**
10. **Good Governance**

Co-operative societies in Bangladesh have a broad spectrum of aims, all of which are geared towards socio-economic development, poverty reduction, and the empowerment of individuals and communities. They play a crucial role in addressing the diverse needs of their members and contribute to the overall development of the country.

1.4 Motivation

The motivation behind developing a Co-operative Society Management System stems from the recognition of several pressing needs and challenges within Co-operative societies. Here are the primary motivations:

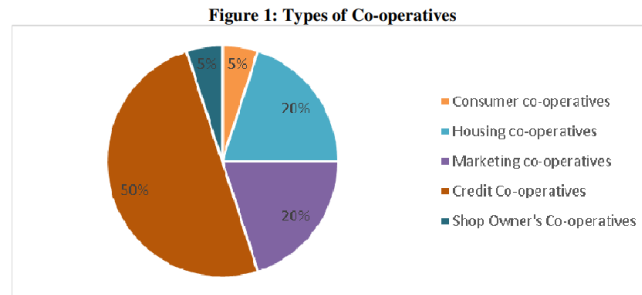
1. **Efficiency Enhancement:** Traditional methods of managing Co-operative societies often involve manual paperwork, which can be time-consuming and error-prone. The motivation is to streamline operations and reduce administrative burdens by automating various tasks, ultimately improving efficiency.
2. **Transparency and Trust:** Co-operative societies rely on the trust and cooperation of their members. By implementing a management system, societies aim to enhance transparency in financial transactions, member interactions, and decision-making processes. This increased transparency fosters trust among members and stakeholders.
3. **Compliance and Reporting:** Many Co-operative societies are subject to regulatory requirements and reporting standards. A management system simplifies compliance by generating accurate financial reports and statements, making it easier to adhere to legal obligations.
4. **Member Empowerment:** Co-operative societies exist for the benefit of their members. By providing an online platform for members to access their account statements, apply for loans, and engage in discussions, the system empowers members and improves their overall experience.

5. **Data Security:** Data security and privacy are paramount. With the rise in cyber threats, a motivation for implementing a management system is to ensure that sensitive member and financial data is securely stored, reducing the risk of data breaches.
6. **Scalability:** As Co-operative societies grow, the need for efficient management becomes more critical. The system allows for scalability, enabling societies to accommodate a larger membership base and increasing volumes of financial transactions.
7. **Cost Reduction:** While there may be an initial investment in implementing the system, the long-term motivation is cost reduction. By automating tasks and reducing the need for extensive manual labor, Co-operative societies can save both time and money.

The motivation for a Co-operative Society Management System lies in its ability to address the unique challenges faced by Co-operative societies, improve operational efficiency, enhance transparency, ensure accurate financial management, empower members, and ultimately contribute to the long-term sustainability and success of these Co-operative organizations.

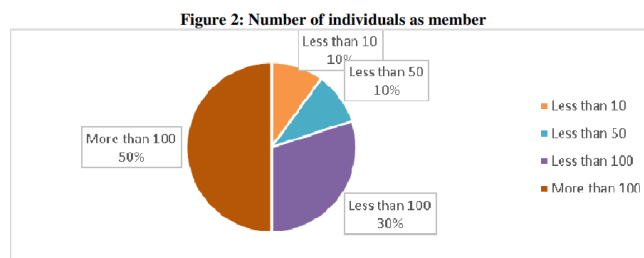
1.5 Findings of Our Study

Cooperative society is an association where the members voluntarily cooperate for mutual social, cultural, and economic benefit. The study reveals the following scenarios regarding how the cooperative societies in Dhaka are operating, how the members are cooperating for their mutual benefit, and how they are contributing to the socio-economic benefit of Bangladesh:

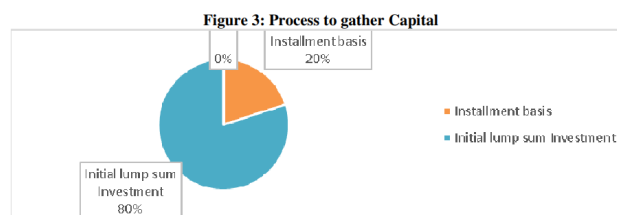


Inference: The figure 1 shows that out of 20 Cooperatives, 5 percent Cooperatives are Consumer Cooperatives, 20 percent are Housing Cooperatives, 20 percent are

Marketing Cooperatives, 50 percent are Credit Cooperatives and 5 percent are Shop Owner's Cooperatives in Dhaka.

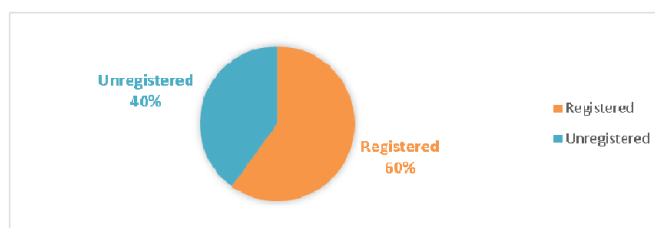


Inference: The figure 2 shows that out of 20 cooperatives, 10 percent cooperatives have members of less than 10, 10 percent cooperatives have members of less than 50, 30 percent cooperatives have members of less than 100, 50 percent cooperatives have members of more than 100.

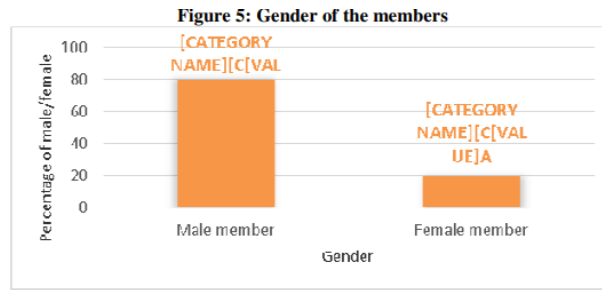


Inference: The figure 3 shows that out of 20 cooperatives, 20 percent cooperatives collect their capital as installment basis (most of the cases monthly installment) and 80 percent cooperatives collect their capital at the time of launching the cooperatives as initial lump sum investment.

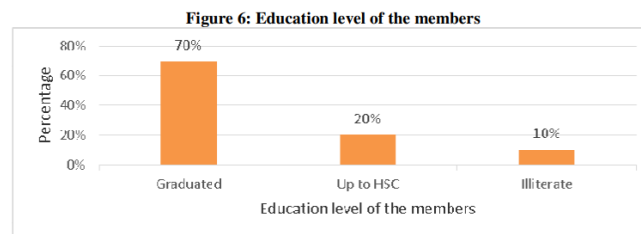
Figure 4: Registration of co-operative Societies



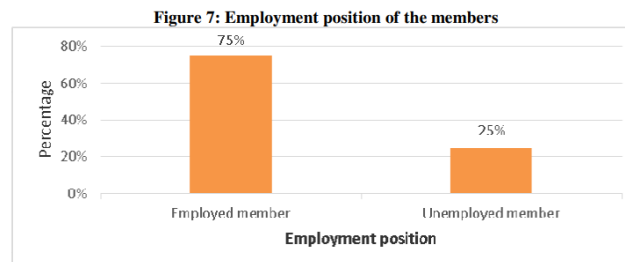
Inference: The figure 4 shows that out of 20 cooperatives, 40 percent cooperatives are operating their organization without taking registration from the concerned authority because the registration process is not easy due to bureaucratic problem and 60 percent co-operatives are operating by taking the registration.



Inference: The figure 5 shows that among the members in the cooperatives only 20% members are female and 80% members are male. So it is clear that the female participation is lower than the male participation in the cooperatives.



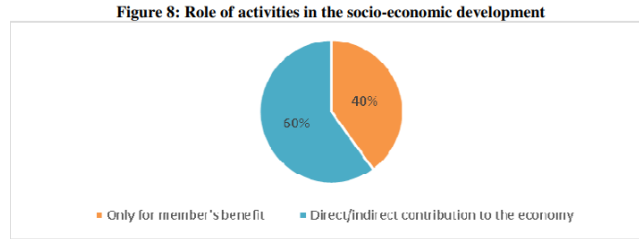
Inference: The figure 6 shows that among the members in the cooperatives, 70% are graduates, 20% have passed up to HSC, and 10% are illiterate.



Inference: The figure 7 shows that among the members in the co-operatives 75% members are employed, 25% members are unemployed.

Inference: The figure 8 illustrates that among the 20 cooperatives surveyed:

- 40% of the cooperatives believe that their activities primarily benefit their members. Additionally, they express the belief that these activities may indirectly contribute to the development of the country.
- On the other hand, 60% of the cooperatives believe that their activities directly contribute to the economic development of Bangladesh. This belief is attributed to their active participation in business-related activities.



1.6 Problems of Cooperatives in Bangladesh

The study reveals several challenges faced by cooperatives in Bangladesh:

1. Registration Challenges:

- Many cooperatives without registration face difficulties in understanding the registration process.
- Bureaucratic obstacles hinder the registration process with the concerned authority.

2. Gender Disparity:

- Female participation in cooperatives is notably lower than male participation, impacting the true and effective realization of socio-economic benefits.

3. Internal Conflicts:

- Internal conflicts among cooperative members hinder progress.
- Predominance of vested interests within cooperatives contributes to internal conflicts.

4. Lack of Professional Management:

- Cooperatives suffer from a lack of professional management.
- Members often lack knowledge on successfully operating a cooperative.

5. Political Interference:

- Political interference poses a significant threat to the progress of cooperatives.

6. Financial Constraints:

- Limited capital supplied by members creates financial problems.

- Financial constraints hinder cooperatives from taking advantage of new opportunities.

7. Lack of Motivation and Guidance:

- Higher-level stakeholders lack motivation to highlight cooperative opportunities.
- Insufficient guidance is provided to obtain relative assistance from concerned authorities.

CHAPTER II

Literature Review

2.1 Definition of Co-operative society:

- A Co-operative society is an autonomous association of persons who voluntarily cooperate for their common economic interest.
- Cooperatives are made out of cooperative and based on the values of self-help, self-responsibility, democracy and equality, equity and solidarity.

2.2 Seven Co-operative features:

- **Voluntary and Open Membership:** The cooperative is open to all individuals who are willing to accept the responsibilities of membership.
- **Democratic Member Control:** The members actively participate in making decisions, and the organization is controlled democratically.
- **Economic Participation by Members:** Members contribute equitably to, and democratically control, the capital of the cooperative.
- **Autonomy and Independence:** The cooperative is an autonomous, self-help organization controlled by its members.
- **Education, Training, and Information:** The cooperative provides education and training to its members to help them contribute effectively to the development of the cooperative.
- **Cooperation Among Cooperatives:** Cooperatives work together for mutual benefit and the sustainable development of their communities.

- **Concern for Community:** Cooperatives strive for the sustainable development of their communities through policies approved by their members.

2.3 History of Cooperative Movements

- **Shore Porters' Society:** Established in Aberdeen in 1498, the Shore Porters' Society claims to be one of the earliest cooperative societies globally [1].
- **Lennoxtown Friendly Victualling Society:** Founded in 1812, the Lennoxtown Friendly Victualling Society is one of the cooperative formations that emerged in the following decades [2].
- **P.C. Plockboy's Proposal (1659):** In 1659, P.C. Plockboy published a pamphlet outlining a scheme for the formation of economic associations [3].
- **Fenwick Weaver's Society (1761):** Possibly the first evidential cooperative, Fenwick Weaver's Society, was established on March 14, 1761, in a cottage in Fenwick, East Ayrshire. Local weavers initiated the cooperative by selling discounted oatmeal from John Walker's front room [4].
- **Cooperative Movement in Europe:** The cooperative movement in Europe is believed to have started in the 19th century, primarily in England and France.
- **Robert Owen's Contribution:** Robert Owen, a social worker and reformer, is considered a pioneer of the cooperative movement [5].
- **Rochdale Principles (1844):** In 1844, the Rochdale Society of Equitable Pioneers established the 'Rochdale Principles,' which became the foundation for their cooperative's operation, development, and the growth of the modern cooperative movement [6].

2.4 Cooperative Movement in India

- **Derrick Nicholson's Initiative (1892):** In 1892, Derrick Nicholson explored ways to establish institutions supporting the agricultural sector. In response to a severe famine in 1899, he proposed the establishment of cooperative societies to aid in agricultural development [7].

- **Co-operative Societies Act (1904):** The Co-operative Societies Act was enacted in 1904, officially recognizing the cooperative movement in India. Subsequently expanded under the 1912 Act, its objective was to assist rural farmers and artisans by providing both short-term and long-term loans [8].
- **Models for Credit Societies:** Credit societies were organized based on two models: one for rural areas and another for urban areas, each with distinct features. The initial model was the Reinfusion Model, later evolving into the Schulze Delitzsch Bank Model. Despite the growth of cooperative societies in rural areas, they faced challenges and could not operate effectively for various reasons [9].
- **Defects Leading to Ineffectiveness:**
 - Lack of provision for establishing Noncredit Cooperative Societies in rural areas.
 - Absence of a dedicated central agency for financing and supervising the activities of these societies.
 - The division of Credit Cooperative Societies into rural and urban types posed a barrier, as no specific arrangements could be made due to the overlapping nature of such classification.

2.5 Cooperatives in Bangladesh

- **Historical Evolution:** Cooperatives in Bangladesh have traversed a century, initially focusing on agriculture and subsequently expanding into economic spheres. Recognized constitutionally as a vital sector in the post-independent Bangladesh economy, the Cooperative Society has evolved into a significant social institution. Dr. Akther Hamid Khan has played a pivotal role in its establishment (Scribd).
- **National Cooperative Day:** Every year on November 6, Bangladesh observes National Cooperative Day throughout the country. During the 39th National Cooperative Day at the Bangabandhu International Conference Centre in Dhaka, Prime Minister Sheikh Hasina (2010) emphasized the urgency of finalizing a national cooperative policy to invigorate cooperative activities. The government is committed to expanding the cooperative movement for socio-economic and cultural emancipation (Sheikh Hasina, 2010).

- **Annual Report 2011 Highlights (Scribd):** According to the annual report in 2011, there has been continuous growth in the number of registered primary cooperatives over the last five years. In the fiscal year 2010-11, the number of primary cooperatives increased to 1,75,839 (4.56% growth), cooperative members reached 89,54,237 (2.23% growth), share capital rose to T 512.95 crore (9% growth), and loan disbursement and collection increased to TK 1638.92 crore and TK 1476.98 crore, respectively.
- **Revised Rules and Regulations (google.com.bd):**
 1. Citation
 2. Application for registration
 3. Annual return
 4. Information in annual return
 5. Other returns
 6. Fee
- **Survey Findings:** A survey of 41 cooperatives revealed:

| out of 41 | Provide information | Reasons |
|-----------|---------------------|--|
| 20 | 100% | We found the responsible person and they were okay |
| 12 | 40% | We couldn't find the management/who knows all t |
| 9 | 10% | They were actually scared/ignorant |

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CHAPTER III

System Model

3.1 Proposed Architecture

CHAPTER IV

Algorithm Analysis

4.1 Traffic Analysis

CHAPTER V

Performance Analysis

5.1 Fuzzification

CHAPTER VI

Discussion and Conclusion

6.1 Limitations of Co-operative Society Management Systems

Co-operative society management systems, like any other systems, have their limitations. Here are some common limitations associated with Co-operative society management systems:

- 1. Limited Resources**
- 2. Technical Expertise**
- 3. Data Security Concerns**
- 4. Integration Challenges**
- 5. Limited Access to Technology**
- 6. Resistance to Change**
- 7. Maintenance and Upkeep**
- 8. Customization Needs**
- 9. Dependency on Vendors**
- 10. Legal and Regulatory Compliance**

Addressing these limitations requires careful planning, adequate resources, and a willingness to adapt to new technologies and processes. Co-operative societies need to assess their unique needs and challenges to select and implement a management system that aligns with their objectives and resources.

6.2 Future-Oriented Plan for Co-operative Society Management

Creating a robust Co-operative society management system requires careful planning and consideration of various aspects. Here's a future-oriented plan to enhance the efficiency and effectiveness of a Co-operative society management system:

- 1. Digital Transformation**
- 2. Data Security and Privacy**
- 3. Member Engagement**
- 4. Financial Management**
- 5. Governance and Compliance**
- 6. Community Building**
- 7. Analytics and Reporting**
- 8. Continuous Improvement**
- 9. Disaster Preparedness**
- 10. Environmental Sustainability**

By integrating these strategies, a Co-operative society can not only streamline its operations but also enhance member satisfaction, foster community engagement, and ensure long-term sustainability in an ever-changing future landscape.

6.3 Conclusion

The implementation of a Co-operative Society Management System can have several positive outcomes for both the society and its members.

In conclusion, a Co-operative Society Management System not only modernizes the functioning of the society but also enhances member satisfaction, financial stability, and community development. It is a strategic investment that can pave the way for the sustainable growth of Cooperative societies in the future.

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