COLOMBO JOURNAL OF MULTI-DISCIPLINARY RESEARCH

COLOMBO JOURNAL OF
MULTI-DISCIPLINARY RESEARCH
Volume 11 - No. 01 - March 2026
Faculty of Graduate Studies - University of Colombo

The Commercialisation Process of Co-operatives: A Study on the Double Bottom Line Approach of the Agricultural Co-operative Societies in Sri Lanka

Y. Y. Senevirathne [a] ✉, A. Mithursan [a], K. A. D. T. D. Kuruppu [a], S. Maheswaran [b]

[a] *Department of Management Studies, Faculty of Management, University of Peradeniya, Sri Lanka*
[b] *Department of Operations Management, Faculty of Management, University of Peradeniya, Sri Lanka*

Abstract

This study investigates the growing commercialisation of agricultural co-operatives in Sri Lanka and its implications for balancing financial sustainability with social objectives through the Double Bottom Line (DBL) approach. Using a mixed-methods design, data were collected from 58 agricultural co-operatives in the Central, Eastern, and Northern Provinces through questionnaires and thematic analysis. Findings reveal that 62.1% of co-operatives engage in value-added agro-based production, indicating a shift toward market-oriented activities. Participatory governance remains strong, with 81% practising collective decision-making, while 58.6% provide credit-related services. Over half (55.2%) operate above breakeven levels, and strategic planning significantly influences both profitability and social impact initiatives. However, challenges persist, including governance weaknesses, regional disparities, limited market access, and difficulties in balancing social and financial goals. The study concludes that effective leadership, innovation, supply chain integration, and credit access are essential for sustainable commercialisation. Policy support should focus on governance, diversification, financial literacy, and market development.

Keywords: Agricultural Co-operatives, Commercialisation, Double Bottom Line (DBL), Financial Sustainability, Sri Lanka

Received:	Accepted revised version:	Published:
11 August 2025	12 December 2025	30 May 2026

Suggested citation: Senevirathne Y. Y., Mithursan A., Kuruppu K. A. D. T. D., & Maheswaran S. (2026). The commercialisation process of co-operatives: A study on the double bottom line approach of the agricultural co-operative societies in Sri Lanka. *Colombo Journal of Multi-Disciplinary Research, 11*(1), 24-54.

✉ Corresponding Author: yashodhas@mgt.pdn.ac.lk

DOI: https://doi.org/10.4038/cjmr.v11i1.93
ISSN: 2362-0633

Introduction

In Sri Lanka's socio-economic landscape, cooperatives are important, especially in rural and semi-urban areas. Many co-ops in Sri Lanka have gone through a phase of commercialisation after being founded with the intention of advancing social welfare and community economic activity (Samarasinghe & Jayawardana, 2022). While upholding their fundamental principles of mutual aid and democratic participation, this shift seeks to improve their financial sustainability, effectiveness, and competitiveness in the contemporary market. A co-operative can be defined as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a joint-owned and democratically controlled enterprise (Deterville, 2022). The beginning of the Sri Lankan co-operative movement is way back to the British colonial and it has developed a distinctive value system in the Sri Lankan economy and society. As these co-operatives become more commercialised, they are becoming more dependent on self-generated earned income instead of government funding (Bastida et al., 2022).

Agricultural co-operative societies are farmer-based organisations that operate collectively to enhance productivity, access to markets, and financial stability (Mahindapala et al., 2020). They play a crucial role in improving rural livelihoods by providing smallholder farmers with access to credit, modern technology, and fair prices. Agricultural co-operative societies have been widely focused on recent arena due to their ability to generate more inherent agricultural/farming products to the market than importing them from other countries, spending many dollars (Khoabane, 2022). Numerous studies have examined the socio-economic impact of agricultural co-operatives. Ndlovu and Masuku (2021); Fernando (2021);Rosairo (2023) found that co-operatives significantly improve rural incomes, reduce poverty, and enhance food security. Some key findings include market access, risk reduction, technology adoption and gender inclusion (International Labour Organisation [ILO], 2014; Meliá-Martí, 2020; Miroro et al., 2023).

Early 20th century British colonial measures intended to enhance rural livelihoods had an impact on Sri Lanka's cooperative movement. In 1906, the first cooperative credit society was founded to help farmers who were having financial difficulties. Producer organisations, dairy co-ops, and multi-purpose co-operative societies (MPCS) were added to the agricultural co-ops over time. The Co-operative Societies Ordinance of 1911 established the legal framework for their activities, and later changes strengthened their contribution to rural development. According to the Department of Co-operative Development (2020), agricultural co-operatives in Sri Lanka can be classified into: Multi-Purpose Co-operative Societies (MPCS), Dairy Co-operatives, Fisheries Co-operatives and Tea and Rubber Co-operatives. These cooperative enterprises are a subset of SMEs that are prevalent in developing nations and incorporate a social entrepreneurship element. They are membership organisations that support both retailers and customers. Members often share economic, social, and cultural needs and objectives through a democratically run, cooperatively owned business (Yamagishi et al., 2021).

The literature provides strong theoretical justification for the use of the Double Bottom Line (DBL) framework, particularly in organisations such as agricultural co-operatives and social enterprises. Groeneveld (2020) highlights how cooperative banks, rooted in Raiffeisen's principles, have historically balanced social innovation with financial objectives, and argues that their distinctiveness and long-term orientation—key aspects of the DBL—are especially relevant in times of economic disruption. Lin and Li (2016) trace the evolution of social enterprises through double, triple, and quadruple bottom line frameworks, emphasising that the DBL approach is foundational for fostering reciprocity, generative collaboration, and social justice across sectors. Together, these sources argue that the DBL framework is ideal for analysing commercialisation processes and for organisations seeking to balance social and financial goals, as it provides both a historical foundation and a pathway for future-oriented, community-driven innovation.

Numerous studies demonstrate how important agricultural cooperatives are to Sri Lanka's rural development. These cooperatives increase farmers' bargaining power by pooling their produce, which helps them obtain better prices and lessen their dependency on middlemen (Ekanayake, 2015). By making it easier to obtain necessary resources like credit, microfinance, seeds, fertilizer, and machinery, they also increase agricultural productivity (Fernando &Karunaratne, 2017). Beyond their financial advantages, cooperatives play a vital role in reducing poverty by fostering self-employment and creating jobs in rural areas (Gunawardana, 2018). Furthermore, the agricultural sector's environmental sustainability and climate resilience have been further improved by some cooperatives' adoption of sustainable farming methods (Wijesinghe, 2020). Even though these societies were founded with social goals in mind, it is evident that they are currently moving toward a dual focus of profit and society. With time and contextual changes, these cooperatives' ideologies have evolved, which may be viewed as a positivistic shift.

The researchers aim to examine the commercialisation process of agricultural co-operative societies in Sri Lanka, with special reference to the Central, Eastern, and Northern provinces, in order to understand how these co-operatives have transformed their traditional operations into more market-oriented and competitive entities. This study further seeks to analyse how these agricultural co-operatives have adopted and operationalised a Double Bottom Line (DBL) approach—balancing financial performance with social value creation—and how this approach supports the achievement of their long-term developmental goals. Accordingly, the objectives of this study are to understand the nature of the Commercialisation Process of Agricultural Co-operatives in Sri Lanka and to explore the way, they have moved to the Double Bottom Line Approach and uses it for achieving their long-term goals.

Literature Review

Since the early days of British colonial rule, agricultural cooperatives have been essential in helping rural farmers in Sri Lanka (Ekanayake, 2015). These cooperatives, which were first founded to aid impoverished farming communities, have progressively changed to strike a balance between social welfare and long-term financial viability (Gunawardana, 2018). The difficulty of upholding their initial mission while competing in an increasingly market-driven economy is reflected in this change, which is frequently referred to as the Double Bottom Line Approach. As these co-operatives become more commercialised, they are becoming more dependent on self-generated income instead of government funding. Therefore, the researchers conducted a systematic review of empirical studies related to the commercialisation of co-operatives to identify the major transitional trends in Sri Lanka. This review followed an inductive approach to search the topics of "commercialisation of social enterprises in Sri Lanka" and "commercialisation trends of co-operatives" or "business trends of co-operatives" in titles, abstracts and keywords of the Scopus database, which is the largest citation database to collect and review references. Due to the lack of literature available in this aspect, especially referring to the Sri Lankan context, authors have filtered ten (10) research articles and analyzed them. There are two major trends identified through this analysis: first, Sri Lankan cooperatives are losing market momentum and strongholds as they struggle to meet the challenges of free market circumstances and second, Co-operatives' 'dual character,' primarily multipurpose, has now become a 'double edge and double bind conundrum'. These insights provide background knowledge about the commercialisation trends in Sri Lankan co-operatives based on the existing literature.

Double Bottom Line Theory as the Key Theoretical Framework

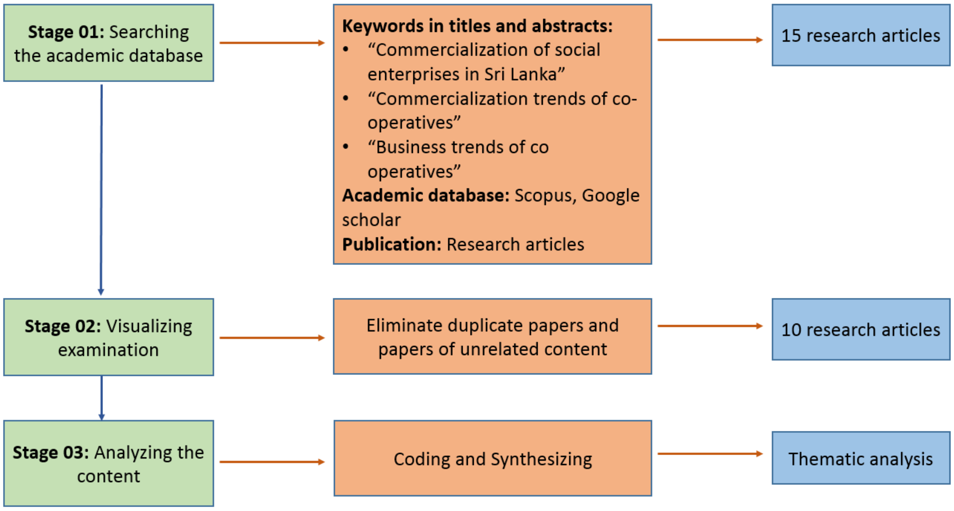
A key framework for comprehending Sri Lanka's agricultural cooperatives' commercialisation is the Double Bottom Line (DBL) Theory. According to this theory, the company needs to strike a balance between its two main goals: social impact and financial sustainability (Jo, 2020). In contrast with conventional business models that only concentrate on maximising profits, the DBL approach guarantees that businesses produce financial gains while also achieving their social goals (Simatele & Dlamini, 2020). Originally founded to improve rural communities, agricultural cooperatives are finding it more and more difficult to uphold their cooperative ideals while adjusting to a cutthroat market economy.

In the Sri Lankan context, cooperatives were historically driven by mutual aid and community welfare, but market liberalisation has pushed them toward self-sufficiency and profit generation (Harcourt, 2023). The DBL theory provides a useful lens to analyse this transformation by explaining how cooperatives strategically integrate business-oriented models while preserving their core social purpose. The theory is particularly relevant to this study's objectives, as it helps to assess how agricultural cooperatives navigate commercialisation while upholding their cooperative principles.

This study intends to assess agricultural cooperatives' commercialisation process and the degree to which they apply the DBL approach to maintain long-term growth by implementing the DBL framework. The theory highlights the difficulties and trade-offs that cooperatives face as they continue to try to balance their social obligations with profit-driven goals. The resilience and long-term effects on rural community development of Sri Lankan agricultural cooperatives will depend on how well they are able to apply the DBL principle as they develop.

Figure 01

Key Steps Followed in Systematic Literature Review



Key Trends Identified via Systematic Literature Review

Sri Lankan Cooperatives are Losing Market Momentum and Strong Holds as They Struggle to Meet the Challenges of Free Market Circumstances.

Once a vital component of Sri Lanka's rural economy, agricultural cooperatives gave smallholder farmers access to markets, credit, and inputs like seeds and fertiliser. However, the difficulties brought on by market liberalisation and escalating competition have made it harder for these cooperatives to hold onto their market dominance.

As a major trend identified through this literature analysis, Sri Lankan cooperatives are losing market momentum and strongholds as they struggle to meet the challenges of free market circumstances (Birchall & Simmons, 2016; Wimalasena & Rupamoorth, 2005). Unless the Sri Lankan cooperative movement is prepared to go through a drastic transformation process, such as turning the movement into a "voluntary people's movement," Sri Lanka appears to be the potential of an impossibility (Samarasinghe & Jayawardena, 2021; Winslow, 2002). Following economic liberalisation in the 1980s, Sri Lanka saw the rise of private sector companies in agricultural supply chains. Large corporations, with superior resources and access to modern technology, began to offer services that were traditionally provided by agricultural cooperatives. As a result, cooperatives lost significant market share, particularly in sectors such as input supply and marketing (Ekanayake, 2015).

Furthermore, ineffective management practices, bad governance, and a dearth of innovation have made it difficult for the cooperative sector to compete in a market-driven economy (Gunawardana, 2018). Their ability to serve smallholder farmers effectively has been weakened by these factors, which have also reduced their market momentum. Many agricultural cooperatives are unable to operate independently in the competitive environment, and a sizable portion still relies significantly on government subsidies to survive (Wijesinghe, 2020). They become less financially viable and less able to offer smallholder farmers useful services as a result of their over-reliance on government assistance.

Co-operatives' 'Dual Character,' Primarily Multipurpose, Has Now Become a 'Double Edge and Double Bind Conundrum'.

The idea of cooperatives' "dual character" describes their dual function as welfare-focused social organizations and as commercial enterprises striving for long-term financial viability (Samarasinghe & Jayawardena, 2021). This dual function has turned into a double-edged sword in Sri Lanka, leading to what is known as a "double bind conundrum."

In Sri Lanka, agricultural cooperatives were first established to help small farmers by providing services like reasonable credit, equitable prices for produce, and assistance for rural development. However, they have had to prioritize profitability due to market pressures, which frequently runs counter to their social mission (Samarasinghe & Jayawardena, 2021). A "double bind" is created when social welfare and business efficiency clash, forcing cooperatives to strike a balance between member needs and the need for long-term financial viability.

Cooperatives have been pressured to broaden and diversify their offerings beyond their customary purview in an effort to thrive in a cutthroat market. Smaller or less successful members may be marginalised as a result, even though this gives them access to larger markets (Samarasinghe & Jayawardena, 2021). As a result, the cooperative's initial goal of assisting smallholder farmers is frequently abandoned. Cooperatives are also compelled by the demands of a free market to implement business plans that might not be consistent with their initial goal of promoting the welfare of the community. As a result, cooperatives are faced with a "double-edged sword," where they must balance the demands of operating profitably with their community-focused goals (Gunawardana, 2018; Samarasinghe & Jayawardena, 2021). The cooperative movement must thus balance its commitment to social and economic justice for underprivileged groups with the changing demands of the free market.

Despite commercialisation's advantages, there have been a number of difficulties with the shift. Concerns about member involvement, governance, and heightened market competition are still major issues (Wijesinghe, 2020). Some cooperatives have trouble managing their businesses in the modern era, which emphasises the necessity of training programmes and capacity-building to improve their operational effectiveness (Gunawardana, 2018). Furthermore, sustaining active member engagement is crucial to preventing cooperatives from sacrificing their social obligations in favour of becoming solely profit-driven organisations. As agricultural cooperatives develop further, their long-term viability and influence on rural development will depend on how well they can apply the Double Bottom Line Approach (Yamagishi et al., 2021). Cooperatives can continue to be effective tools for community transformation and economic empowerment if they can find the ideal balance between social responsibility and financial growth. In a nutshell, the agricultural cooperatives in Sri Lanka are at a critical juncture. They will remain a driving force in rural development for many generations to come if they can successfully incorporate commercial strategies while adhering to their core mission.

Methodology

The goal of this study is to identify the nature of Commercialisation Process of Agricultural Co-operatives in Sri Lanka by analysing their usage of the Double Bottom Line Approach. The participants in this study are agricultural co-operative societies in Sri Lanka. Existing databases of co-operatives were leveraged as a starting point where they were available, followed by contact with key stakeholders to get access to their networks. Initially, researchers intended to cover the entire population of agricultural cooperative societies in Sri Lanka

The study adopted a non-probability, purposive sampling strategy at the provincial level, selecting the Central, Eastern, and Northern Provinces based on their relevance to the research objectives. Following this selection, a census approach was applied to include all active agricultural co-operative societies within these regions. This structured sampling strategy ensured that the study captured rich, context-specific insights aligned with the scope of the research.

These regions were selected due to their high concentration of active agricultural cooperative societies. Subsequently, after obtaining the necessary details of agricultural cooperative societies within these provinces, the researchers were able to collect data from the entire population of agricultural cooperative societies operating in the selected regions. Based on the information provided by the Departments of Cooperative Development, the National Enterprise Development Authority (NEDA), the British Council, district secretariats, and divisional secretariats, the researchers finalised a framework comprising 58 currently active agricultural cooperative societies. The details of these societies are presented below.

This study examines the commercialisation process of agricultural co-operatives in Sri Lanka using the Double Bottom Line Approach. It focuses on co-operatives in the Central, Eastern, and Northern Provinces due to their high activity levels. Researchers used existing databases and key stakeholders to access networks, ultimately identifying 58 active agricultural co-operatives based on data from various institutions.

Table 01

Respondents' Details

Central Province	Northern Province	Eastern Province
Kandy – 05	Jaffna – 21	Trincomalee – 05
Matale – 06	Killinochchi - 08	Ampara – 06
Nuwara-eliya - 02	N/A	Batticaloa - 05
Sub Total - 13	**Sub Total - 29**	**Sub Total - 16**
	Total - 58	

A structured questionnaire that included both quantitative and qualitative questions was used to gather the data for this investigation. This study adopted a mixed-method research strategy, enabling the researchers to benefit from the strengths of both quantitative and qualitative data. The integration of these two data types provided a comprehensive and nuanced understanding of the commercialisation process of agricultural co-operatives in Sri Lanka. Quantitative data were used to identify patterns and trends in the adoption of the Double Bottom Line (DBL) approach, while qualitative insights offered contextual depth by revealing the challenges, gaps, and operational realities experienced by the co-operatives.

According to Creswell and Plano Clark (2018), quantitative data made statistical analysis easier and enabled the discovery of patterns and trends, while qualitative data gave a more profound contextual understanding of the experiences and viewpoints of the participants. The study sought to improve data validity through triangulation by combining the two approaches, guaranteeing a more comprehensive interpretation of the results. The researchers chose to perform in-person interviews rather than distributing the pre-designed questionnaires for self-completion.

This choice was made in order to reduce misunderstandings, guarantee greater response accuracy, and enable in-the-moment clarification of any uncertainties. A pilot study with a few trial interviews was carried out prior to the questionnaire's finalisation. Before the questionnaire was finalised, the input gathered from this process was thoroughly examined and the necessary changes were made. After it was completed, the questionnaire was given to enumerators who had received training on conducting structured interviews with agricultural cooperative society representatives. All three of the chosen provinces were covered by the 56 interviews that were done. In-person interviews were given preference since they gave enumerators the chance to watch nonverbal indicators like body language, which are essential for identifying hesitancy, perplexity, or uneasiness in answers (Bryman, 2012). Each interview lasted one to three hours and was held on the grounds of agricultural cooperative societies in order to guarantee the depth and reliability of the data. Participants were able to react in a comfortable setting, which encouraged more precision in their answers. In-line with best practices in mixed-methods research, the combination of direct interaction with respondents and structured questioning enhanced the overall validity and comprehensiveness of the data gathered.

Throughout the study, the researchers took a number of steps to guarantee ethical integrity. Prioritising voluntary participation and informed consent, participants were fully informed about the study's goals, methods, possible risks, and their rights prior to giving their consent. To make sure they understood the purpose of their participation completely, participants were encouraged to ask questions. Furthermore, confidentiality and anonymity were rigorously upheld. To preserve participant privacy, personal identifiers were not used in the data collection, analysis, or reporting processes. Since direct observations were also part of the study, participants were informed in advance about these observational aspects. The study respected the core tenets of research ethics by following these rules, guaranteeing openness, participant autonomy, and respect for the rights and dignity of every research participant.

Since mixed-methods approach was used to analyse the data, both quantitative and qualitative questions were included in the survey. Quantitative data analysis was conducted using pie charts, one-way ANOVA, and regression techniques, all performed through the R programming language. Qualitative analysis was carried out using thematic analysis, through which four main themes were identified.

Ethical Considerations

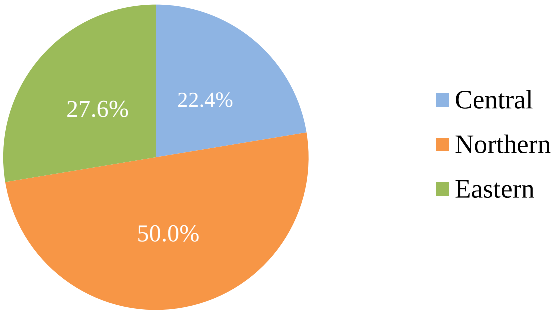
This study was conducted as part of a University of Peradeniya research grant. The selection of the grantees made on competitive basis and went through a rigorous review process by two external reviewers. The reviewers reviewed the proposals, budgets and some ethical requirements. To ensure transparency, I would like to outline the ethical measures undertaken during the research process, particularly in the absence of a formal ethical clearance letter, which could not be obtained due to institutional constraints at the time of the grant application. All participants, including representatives from agricultural cooperative societies, were fully informed about the study’s objectives, procedures, and potential implications through a detailed information sheet provided prior to their involvement. Informed consent was obtained from all participating cooperatives before data collection commenced. The research team secured approval from each agro-based cooperative involved, ensuring their voluntary participation. Data collection was conducted by trained research enumerators who adhered to ethical guidelines, prioritising participant confidentiality and anonymity. To protect the identity of the cooperatives, no names or identifiable details have been disclosed in the manuscript, and all data were anonymised during analysis and reporting.

Results

Quantitative Data Analysis

Figure 2

Distribution by Province

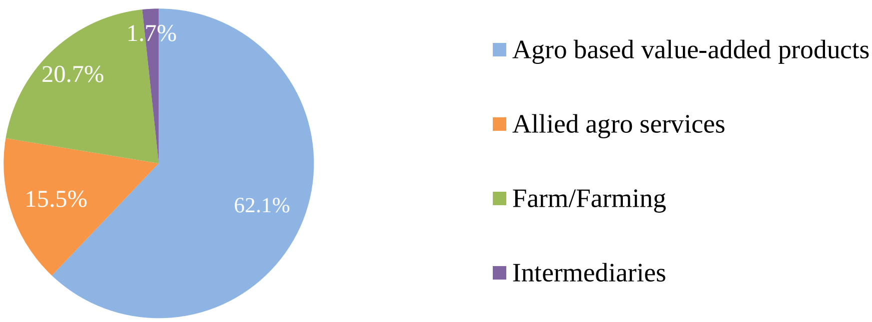


The distribution of agricultural cooperatives in Sri Lanka's Central, Eastern, and Northern provinces is depicted in the pie chart. With 50% of the cooperatives, the Northern Province has the largest share, suggesting that agricultural cooperative activity is heavily concentrated there. With 27.6%, the Eastern Provinces comes in second, indicating a moderately high cooperative presence. The Central Province has the lowest share at 22.4%, suggesting a relatively lower cooperative engagement compared to the other two provinces.

Numerous factors, including market accessibility, government support, cooperative development policies, and regional agricultural potential, may have an impact on this distribution. While the Central Province's lower percentage may be the result of different economic structures or difficulties in establishing and maintaining cooperatives, the Northern Province's dominance may be the result of robust cooperative networks, government incentives, or a concentration of agricultural activity. In order to develop policies, allocate resources, and plan strategically for the commercialisation and social impact of cooperatives in Sri Lanka, it is imperative to comprehend these regional variations.

Figure 3

Main Businesses of Cooperatives

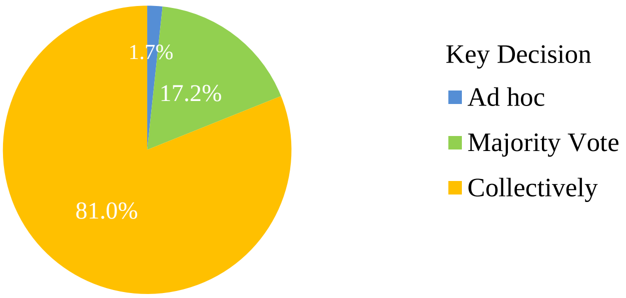


Value-added agro-based products, which make up 62.1% of the sector, show a notable shift in the distribution of primary business activities among Sri Lankan agricultural cooperatives. This suggests a deliberate focus on processing and commercialisation as opposed to just primary production. The sector's continued contribution to agricultural production is highlighted by the fact that traditional farm/farming activities still make up 20.7%. A growing demand for service-oriented contributions to the agricultural value chain is also reflected in the 15.5% of cooperatives that concentrate on related agro services like the provision of farm equipment, advisory services, and logistical support.

The low percentage of intermediaries (1.7%) indicates that cooperatives are increasingly choosing direct market access over traditional middlemen, which could increase profitability and lower transaction costs. This distribution shows how cooperatives are embracing market-driven tactics that strike a balance between sustainable agricultural development and economic growth as part of a gradual shift towards commercialization. The results highlight how crucial value addition, market integration, and support services are to bolstering Sri Lankan agricultural cooperatives' long-term sustainability.

Figure 4

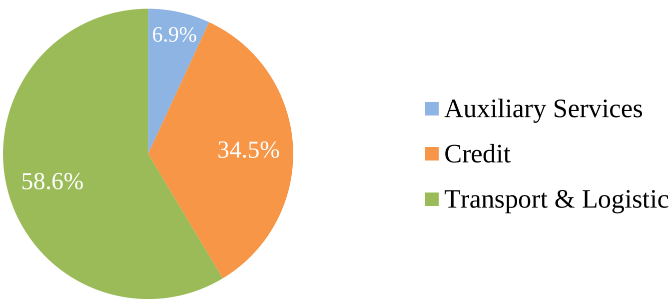
Key Decision Making Methods



Source: *R Programme generated*

Figure 5

Supply Chain Categories



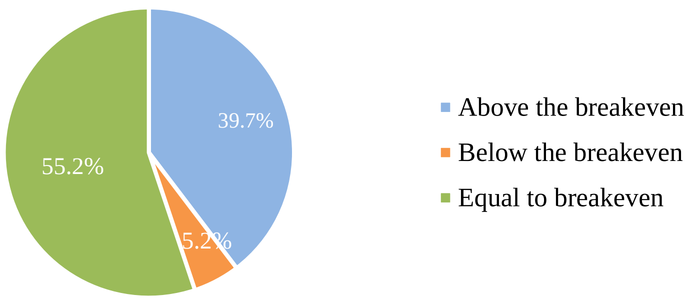
Source: R Programme Generated

81% of cases in Sri Lankan agricultural cooperatives involve collective decision-making, according to an analysis of the main decision-making techniques (Figure 4). This demonstrates a strong dedication to participatory management and democratic governance in cooperatives. With 17.2% of cooperatives using majority voting, it is the second most popular method, suggesting that some decisions are still made by numerical consensus rather than unanimous group agreement. Ad hoc decision-making, on the other hand, is very rare (1.7%), indicating that cooperatives typically follow organised and methodical decision-making processes rather than making impromptu or impromptu decisions. These results highlight how crucial participatory governance is to cooperative sustainability and how decision-making procedures should be in line with cooperative ideals.

Credit services, which make up 58.6% of supply chain activities, are a major component of Sri Lankan agricultural cooperatives' supply chain structure (Figure 5). This shows that having access to funding is essential to cooperatives' ability to operate and remain viable since it enables members to make investments in infrastructure, machinery, and agricultural inputs. The importance of effective distribution networks in guaranteeing market accessibility and supply chain efficiency is reflected in the 34.5% share of transport and logistics services. Auxiliary services, on the other hand, only make up 6.9%, suggesting that support services like consulting, insurance, and advisory services are comparatively underutilised in cooperative supply chain strategies. These findings show that in order to increase market competitiveness and operational efficiency, cooperatives must improve auxiliary services while preserving robust financial and logistical networks.

Figure 6

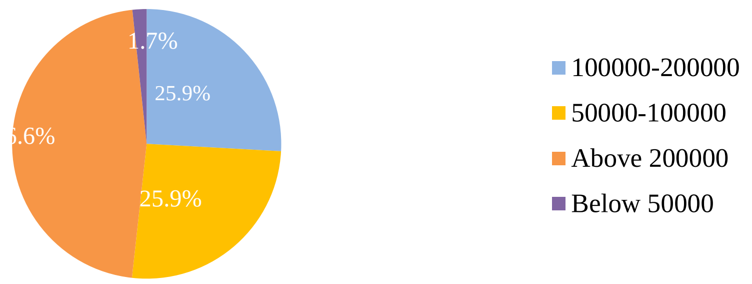
Profitability of Cooperative



Source: *R Programme Generated*

Figure 7

Current Financial Status



Source: *R Programme Generated*

Agricultural cooperatives' profitability distribution (Figure 6) shows a significant concentration in the mid-to-high profit ranges. A sizable percentage of cooperatives are attaining high profitability, as evidenced by the largest segment (46.6%) falling into the above 200,000 category. In contrast, two equal groups (25.9% each) have moderate financial performance, falling into the 100,000–200,000 and 50,000–100,000 ranges. A tiny minority (1.7%), who are either struggling cooperatives or recently founded cooperatives, report earnings below $50,000. This distribution shows that while most cooperatives are financially feasible, their profitability varies.

55.2% of agricultural cooperatives, according to the financial status distribution (Figure 7), operate above breakeven, which means they make enough money to pay their expenses and stay financially viable. 39.7% of cooperatives are operating at breakeven, meaning they have little surplus or capacity for reinvestment. Financial distress and possible threats to long-term sustainability are highlighted by the small percentage (5.2%) that operates below breakeven. This analysis is in line with the larger cooperative commercialisation trend, which shows that while most are becoming financially independent, some are still struggling financially.

Figure 8

Profitability of Cooperative

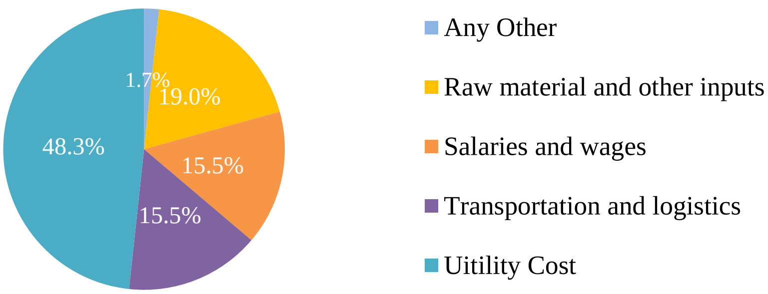
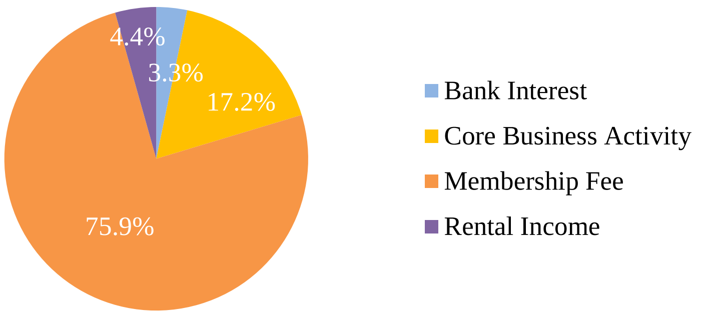


Figure 9

Current Financial Status

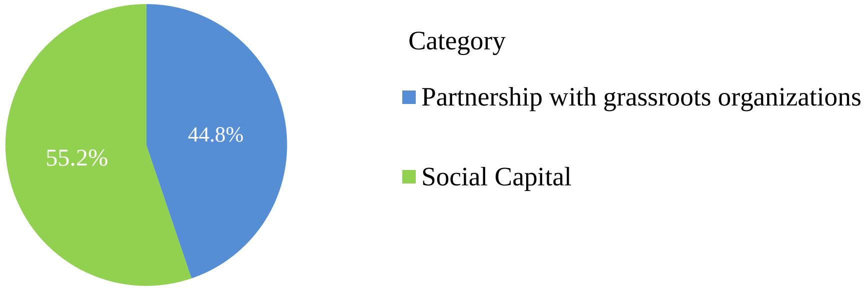


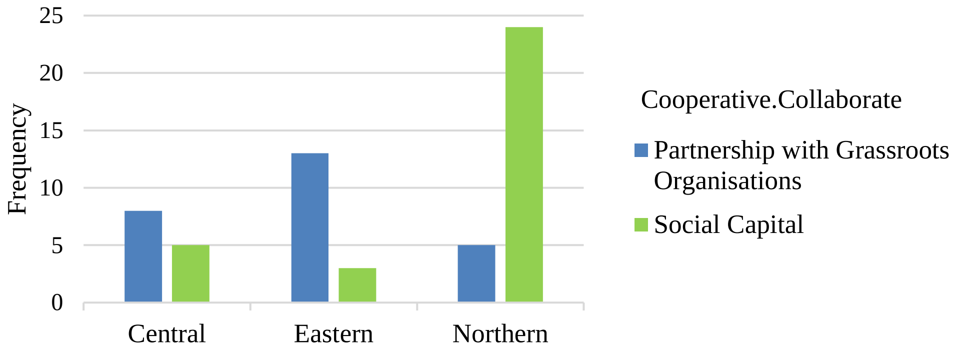
Since core business operations account for 75.9% of agricultural cooperatives' revenue, Figure 8 shows that direct agricultural operations and trade are crucial to the organisations' long-term viability. As an additional source of income, bank interest (17.2%) shows that cooperatives also make money from savings or financial investments. The small percentages of membership fees (3.4%) and rental income (3.4%) indicate that these revenue streams do not significantly contribute to cooperatives' overall financial structure. This distribution emphasises that the success of cooperatives' operations and business is what ultimately determines their sustainability.

Raw materials and other inputs (48.3%) are the largest expense category (Figure 9), suggesting that a significant amount of cooperative spending goes toward buying necessary agricultural supplies. The significance of operational overhead in cooperative functions is demonstrated by the fact that utility costs (19%) come in second. The equal share of transportation and logistics (15.5%) and salaries and wages (15.5%) reflect the need for labour and distribution networks for effective operations. The small percentage of other expenses (1.7%) indicates that miscellaneous costs have little effect on cooperative finances. This cost structure emphasises the need to minimise expenses while preserving operational effectiveness, which is in line with cooperatives' commercialisation initiatives.

Figure 10

Provincial-wise Cooperatives' Collaborations





The study of cooperative collaboration indicates that social capital is more important (55.2%) than partnerships with grassroot organisations (44.8%). It also suggests that the main sources of support for agricultural cooperatives in Sri Lanka are member relationships, internal networks, and trust. Different regional trends can also be seen in the distribution of cooperative collaboration by province. With moderate involvement in social capital (five cooperatives) and grassroots partnerships (eight cooperatives), the Central Province demonstrates a well-rounded strategy. The Eastern Province exhibits a strong preference for cooperative engagement with grassroot organisations, as evidenced by its minimal social capital (three cooperatives) and highest reliance on external partnerships (13 cooperatives). On the other hand, only five of the Northern Province's twenty-four cooperatives participate in grassroots partnerships, indicating a reliance on internal cohesion and trust-based collaboration. Northern cooperatives prioritise internal social capital for sustainability and resilience, while Eastern and Central cooperatives prioritise external partnerships to improve operational capacity. These findings highlight the regional differences in cooperative collaboration strategies. This variation highlights the need for strategic interventions tailored to regional strengths, fostering both internal social networks and external partnerships to enhance the long-term viability of agricultural cooperatives in Sri Lanka.

Table 2

ANOVA-Factors Influencing the Movement of Agricultural Cooperatives towards Social Impact

Predictors	Deviance	Resid.Df	Resid.Dev	Pr(>Chi)
Strategic plan	2.03178	56	12.3130	0.0005884 ***
Starting number	0.87109	55	11.4420	0.0244234
Business opportunity	0.10387	54	11.3381	0.4371095
foreign Market	0.45747	53	10.8806	0.1029241
Suppliers' intermediaries	0.36443	52	10.5162	0.1455078
Current financial status	1.03612	51	9.4801	0.0141147 *
Market links	0.87976	50	8.6003	0.0237235 *

Source: *R Programme Generated*

Key predictors affecting social capital and cooperative collaboration in Sri Lankan agricultural cooperatives are highlighted in the Analysis of Variance (ANOVA) table derived from the logistic regression model. The existence of a strategic plan is highly significant (p<0.001), demonstrating that cooperatives with organised planning frameworks have better market integration and collaboration. A greater initial membership base promotes stronger networks and organisational stability, suggesting that the initial number of members also has a significant impact (p<0.05). The idea that financial stability is a crucial component of long-term cooperative success is further supported by the positive correlation between cooperative collaboration and current financial status at breakeven or above (p<0.05).

Furthermore, market link continuity (p<0.05) plays a significant role in cooperative social capital, highlighting the significance of preserving robust supply chain connections and market accessibility. However, factors like supplier intermediaries and business opportunity for foreign market orientation do not exhibit statistical significance, indicating that their influence might depend on how other variables interact with them or on the particular circumstances of each cooperative. A model sensitivity of 81.25% is also revealed by the classification analysis, demonstrating that the model accurately forecasts cooperative commercialisation outcomes while admitting the existence of some misclassifications brought on by invisible interactions. The results of this study support the double bottom-line approach, which aims to balance social and economic goals by highlighting the significance of market connections, financial stability, and strategic planning in promoting cooperative commercialisation and sustainability. (Annexure 1: Results of the R programme).

Table 3

Strategic Planning Framework for the Commercialisation of Agricultural Cooperatives

Predictors	*Estimate*	*Std.Error*	*T value*	*Pr(>{t})*
Intercept	0.69565	0.07688	9.049	1.5e-12 ***
Strategic Plan	0.21863	0.09897	2.209	0.0313 *

Source: *R Programme Generated*

Model Summary

Deviance Residuals

Min	***1Q***	***Median***	***3Q***	***Max***
-0.91429	0.08571	0.08571	0.30435	0.30435

Source: *R Programme Generated*

The logistic regression model's findings show that strategic planning has a significant impact on the possibility that a cooperative will shift toward a profit-oriented approach(β=0.21863, SE=0.09897, t=2.209, p=0.0313). The shift toward commercialisation is supported by the positive coefficient, which indicates that cooperatives using strategic planning frameworks are more likely to report higher income. This conclusion is further supported by the model's predictive accuracy, as the classification results show that, when strategic planning was taken into account, 48 out of 58 cooperatives were accurately identified as using a profit-driven strategy.

The overall profit orientation prediction rate of the model, which is 82.76% (48/58*100), shows how well it captures the trend of cooperative commercialisation. This high accuracy indicates that long-term planning, financial forecasting, and structured decision-making procedures all play a major role in the economic sustainability of cooperative businesses. The importance of strategic planning in promoting profit orientation is consistent with the larger discussion of cooperative commercialisation, in which businesses move away from exclusively social welfare models and toward profitable, market-driven operations. Even though the results clearly show that strategic planning plays a significant role in this transition, more research that takes into account other predictors like market access, financial reserves, and governance structures may improve the model's ability to explain phenomena. These observations offer factual proof that cooperatives attempting to strike a balance between social and economic goals while negotiating cutthroat market conditions depend heavily on strategic planning.

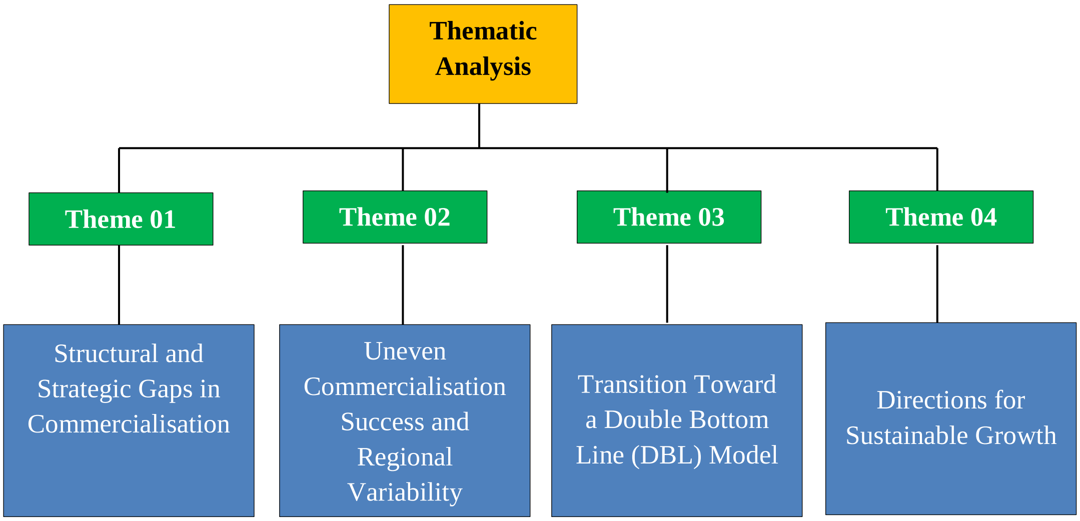
Qualitative Data Analysis

The researchers used thematic analysis, a commonly used technique for finding, examining, and summarising patterns (themes) in data, to analyse the qualitative data (Braun & Clarke, 2006). Researchers can systematically analyse qualitative data while retaining interpretive flexibility by using thematic analysis. Furthermore, the pattern-matching technique was used to identify recurrent themes and relationships in a subset of qualitative data. Yin (2002) asserts that by identifying patterns in the data, pattern matching plays a crucial role in creating a broad picture of a case. Because it improves the rigour and validity of findings, this technique is a useful tool for guaranteeing the depth and credibility of qualitative analysis (Trochim, 1989).

The use of thematic analysis is believed to be most advantageous for research that seeks to reveal through interpretations. The researchers are able to connect a content analysis of the entire work to a frequency analysis of a theme thanks to this analysis. This will enhance the research's overall meaning by adding complexity and precision (Braun & Clarke, 2012). The researchers identified four major themes using this thematic analysis method, and Figure 02 shows the four themes that were derived from the thematic analysis.

Figure 11

Thematic Map



Theme 01: Structural and Strategic Gaps in the Commercialization

Due to a lack of organised strategic planning, these agricultural cooperatives frequently encounter major obstacles in their commercialisation process. These cooperatives find it difficult to negotiate the intricacies of the market in the absence of well-defined objectives and structured structures. Lack of long-term planning and clearly defined financial goals frequently results in wasteful resource use and constrained growth potential.

> *"Since we don't have a strategic plan, we are not clear about our actual goal of the society. We work according to our own motives most of the time."* - Respondent N5

> *"Do we need a strategic plan? We don't think about it. But true that we are facing troubles when we handle the society meetings every month."* - Respondent E7

Cooperatives find it challenging to move past short-term survival and toward sustainable growth due to this lack of strategic direction, which also prevents them from taking advantage of opportunities in the agricultural sector. The impact of seasonal variations in production and price volatility is another significant obstacle to cooperatives' commercialisation efforts. Global trends, market demand, and fluctuating weather all have an inherent impact on agriculture, which can lead to supply and revenue instability. Long-term planning and expansion are severely hampered by this uncertainty since cooperatives may struggle to attract steady investment or sales. Additionally, price volatility can put a strain on cooperatives' financial stability, making it more difficult for them to grow their market share or make long-term plans.

"We can't predict the seasonal outcome due to heavy rainy seasons. Its up to god…." - Respondent N16

"Since the market demand is decreasing in certain periods, we sometimes have to wait and see until we get a proper price." - Respondent C5

"Most of our members entire production gone waste in last season due to heavy rain. Those were very hard days as we were not in a position to maintain our financial status as members." - Respondent C2

Inadequate human resource (HR) management and dwindling membership also affect agricultural cooperatives' operational effectiveness. Cooperatives lose access to essential labour, funding, and collective expertise as membership declines. Inadequate HR management can also result in subpar leadership, a lack of accountability, and inadequate member skill development. The commercialisation process is further slowed by these internal flaws, conflicts of interest, and unstable finances.

Theme 02: Uneven Commercialisation Success and Regional Variability

Different regions have had varying degrees of success with agricultural cooperative commercialization; some, like Northern province's Alvai North and Irupalai, have seen notable successes, while others have continued to struggle. This discrepancy can be linked to different local economic circumstances, as cooperatives can flourish in areas with better access to markets, infrastructure, or outside assistance.

"We were able to achieve our plans as we worked hard together." - Respondent N3

"We are highly satisfied with our achievements at the moment as a society." - Respondent N4

Other areas, on the other hand, might encounter difficulties that limit their capacity to grow their business operations, such as restricted access to capital, inadequate transportation systems, or lower market demand. These regional variations draw attention to the intricate nature of the commercialisation process, where success depends on both the external environment and cooperative internal management.

"We are facing many challenges once it comes to the season. Even we had the production we may face lots of difficulties in the road system. Otherwise, we may excel more." - Respondent E7

The degree of regional variation in commercialisation success is also significantly influenced by the caliber of cooperative leadership. Commercialisation efforts are more likely to succeed in areas where cooperatives have strong, visionary leaders who can mobilise resources and have a clear understanding of market dynamics. These executives have the ability to spot business prospects, draw in capital, and form alliances that strengthen the cooperative's position in the market. Conversely, cooperatives frequently find it difficult to sustain momentum and adjust to changes in the market in areas with weak leadership or a lack of strategic vision. This demonstrates how the success of the commercialisation process as a whole is directly impacted by the caliber of the leadership.

> *"Last few years we had the worst leadership for our society. I think that is the main reason why we came to this lower level now."* - Respondent E6

> *"Leadership matters. He did not allow us to contribute to the decision making and did not listen to us."* - Respondent C12

A lack of product diversification and budgetary limitations prevent many cooperatives from expanding, even in the face of numerous business opportunities. The cooperatives in some areas are too dependent on a single product or a small selection of offerings, which makes it difficult for them to enter new markets or reduce the risks brought on by market swings.

> *"Palmyra is a treasure. It's better if we can offer more palmyra related products than these. We are limited. But the members are not interested."* - Respondent N8

Furthermore, cooperatives frequently lack the funds to invest in infrastructure, training, and technology—all of which are essential for expanding their operations. These difficulties highlight the complex process of commercialisation, in which internal constraints and external variables such as local economic conditions interact to influence cooperatives' overall marketplace viability and success.

Theme 03: Transition Toward a Double Bottom Line (DBL) Model

In the past, a lot of agricultural cooperatives were founded primarily for community-supporting social projects rather than just financial ones. In order to fulfill their goal of enhancing the welfare of their members and the communities in which they live, these cooperatives have historically participated in initiatives like free milk distributions, school support, and disaster relief funding. These activities demonstrate the cooperative's dedication to social responsibility, which has long been a key component of their business practices. Even though these social programs have been essential, cooperatives are now realising how important it is to include profitability in their overall strategy in order to secure their long-term viability.

> *"We provide funds to the 'ABC Vidayala' every year for their sports meet."* - Respondent N20

> *"Our members are able to uplift their life to certain extent due to the society contribution towards their lives. That's why they love this."* - Respondent N22

Cooperatives are changing as well, moving toward profit-making endeavours while maintaining a focus on social impact. This shift is emphasised by programmes for women's empowerment, such as giving special loans to female farmers and business owners. By giving them access to capital and business opportunities, these initiatives seek to empower women while promoting gender equality and advancing the local economy. Even though these programs contribute to constructive social change, they also highlight how crucial financial sustainability is becoming to the cooperative model. In line with the Double Bottom Line (DBL) approach, which seeks to strike a balance between the pursuit of profit and the dedication to social good, this change also draws attention to the difficulties that arise from this dual focus.

> *"We were at a very low phase but now we are above the breakeven with our own effort. It a business now."* - Respondent N4

> *"We have two main paths now. One is the well being of our members and secondly maintaining the profit level of our core business activity. We have to work for both. And we do."* - Respondent N10

Financial sustainability is still a major challenge for these cooperatives; despite the beneficial social effects they aim to achieve. This is because many of them find it difficult to strike a balance between their goals and the need to be profitable. This delicate balancing act is a hallmark of the DBL approach, in which the cooperative's success is determined by its capacity to sustain and grow its social impact in addition to its financial results.

Theme 04: Directions for Sustainable Growth

One of the main goals of agricultural cooperatives as they look to the future is to enter export markets as a means of achieving sustainable commercialisation. Growing internationally provides the chance to diversify sources of income and lessen reliance on volatile home markets. Cooperatives can attain larger economies of scale and create more secure long-term financial positions by entering foreign markets. Cooperatives can concentrate on expanding their businesses in a financially sustainable manner while still supporting social initiatives in their local communities, which is in line with the Double Bottom Line (DBL) approach.

> *"We are looking to enter the export side as well. Many members are willing to export. We try to collectively put some effort on it."* - Respondent C7

> *"This is highly exportable product. I wonder why our member are not excited to cater to foreign markets. We are going to implement this in next five years' time as a society."* - Respondent N9

Promoting increased cooperation amongst various cooperative organisations is another important goal for the future of cooperatives. Cooperatives can share knowledge, pool resources, and forge stronger market positions by cooperating. Joint marketing campaigns, group price negotiating, and infrastructure investments can all be facilitated by collaboration. This feeling of group development and support for one another is indicative of the social component of the DBL approach, in which cooperatives aim to improve their communities' quality of life in addition to increasing their financial performance. Working together can therefore have positive social and economic effects while strengthening the cooperative networks' sense of unity and purpose.

> *"We have a good collaboration with the agricultural department, and they are offering frequent trainings to us related to the plant nursery."* - Respondent C3

> *"Farmers association and we are working together always. They guide us for our market needs."* – Respondent E8

Lastly, another important goal for cooperatives' future is to increase their financial resilience through investment and innovation. Cooperatives must find creative answers to financial problems if they are to continue growing and carrying out their social missions. To increase productivity and cut expenses, this can entail adopting new technologies, looking for fresh investment opportunities, and diversifying sources of income. In a market that is changing quickly, cooperatives can maintain their competitiveness and adaptability by investing in innovation. By guaranteeing that cooperatives are not only financially sustainable but also capable of producing long-lasting social impact, the incorporation of innovation and investment into cooperative strategies supports the DBL approach.

> *"From the beginning, innovation is key to success. We always highlight it to our members."* - Respondent C9

> *"We are planning to give more awareness related to the innovation and creativity since this is a golden opportunity for us to excel in the foreign market as well."* - Respondent N9

Cooperatives can move toward a more sustainable and balanced future by enhancing their financial resilience through innovation while maintaining their commitment to community well-being.

As agricultural cooperatives work toward sustainable commercialisation, these themes offer a thorough summary of the opportunities and challenges they face. Addressing structural flaws, adjusting to regional differences, switching to a more balanced DBL model, and concentrating on long-term objectives like financial resilience, cooperation, and export growth are all crucial for success. Cooperatives can only succeed in a market that is becoming more competitive and dynamic by successfully navigating these obstacles and fulfilling their dual missions of social impact and financial viability.

Discussion

With a focus on balancing social impact and financial sustainability, this study sought to evaluate how Sri Lankan agricultural cooperatives have adopted the Double Bottom Line (DBL) approach and analyse their commercialisation process. Strategic planning, decision-making, financial viability, and collaborative efforts were the main determinants of commercialisation that were studied in this study. To obtain valuable insights, the study combined quantitative analysis with thematic manual analysis.

Commercialisation Trends and Financial Viability

According to the quantitative analysis, there has been a significant market-driven shift as the majority of cooperatives (62.1%) have switched from traditional farming to value-added agro-based products. According to the profitability distribution, 39.7% of cooperatives stay at breakeven and 55.2% operate above it, indicating a generally stable financial situation. 5.2% of cooperatives, on the other hand, are below breakeven, indicating financial difficulties and the need for focused assistance. Concerns regarding price volatility, seasonal variations, and financial resource accessibility were brought to light by thematic analysis, which also highlighted structural obstacles to commercialisation.

Recent empirical studies highlight both the opportunities and challenges faced by agricultural cooperatives in developing countries as they transition from traditional farming to value-added agro-based products. Quantitative analyses, such as those conducted on Turkish and Ghanaian cooperatives, reveal that while cooperative membership can significantly increase household and farm incomes (by up to 34.75%), many cooperatives still struggle with financial insufficiency and long-term sustainability risks (Ozalp, 2019; Twumasi et al., 2021). Financial structure analyses consistently point to limited access to capital and persistent financial weaknesses as major obstacles to commercialisation. Thematic reviews further underscore that cooperatives often face challenges related to price volatility, seasonal variations, and limited access to credit, which can threaten their financial stability and continuity. Additionally, evidence from sub-Saharan Africa suggests that while cooperatives and farmers' organisations can improve income and market access, marginalised groups may require additional support to fully benefit from these structures (Bizikova et al., 2020). Overall, the literature demonstrates that a combination of quantitative and qualitative approaches is essential to understanding the complex structural barriers to successful commercialisation in agricultural.

Decision-making and Governance

According to the study, 81% of cooperatives use group decision-making, which supports the ideas of democratic governance. Nevertheless, the thematic analysis revealed strategic planning gaps, as many cooperatives found it difficult to establish long-term operational and financial objectives. The significance of leadership in collaborative success was underscored by the participants, as instances of inadequate governance impeded commercialisation endeavours.

In line with these findings, Gwiriri and Bennett (2020) examine democratic governance and decision-making within agricultural cooperatives in South Africa, focusing on the balance between democratic function and effective program delivery. It finds a linkage between democratic governance and effective service delivery to cooperative members. The paper also touches on the role of leadership in accessing benefits, though not directly in commercialisation. Further to that, Minda et al. (2019) analyses governance models in Ethiopian agricultural cooperatives, finding poor adaptation of governance architecture and limited application of cooperative principles. Democratic, Co-optation, and Rubber Stamp models are most common. Factors influencing model choice include governance, awareness, teaming, and leadership. The study also notes the impact of government intervention on cooperative autonomy. It touches on strategic planning gaps and the relationship between decision-making and cooperative performance.

Supply Chain and Revenue Structures

Integration of the supply chain is closely related to financial sustainability. The study highlighted the importance of financial accessibility by revealing that 58.6% of cooperatives depend on credit services. 75.9% of total revenue comes from core business operations, demonstrating that cooperatives rely more on market success than outside assistance. Thematic analysis showed that diversification is still difficult and that revenue growth is constrained by restricted access to export markets.

Sahoo et al. (2020) focus on agricultural cooperatives in India, a developing country. It touches on challenges to sustainability, such as over-dependence on financing agencies, and discusses the role of cooperatives in credit disbursement and processing. It also mentions the importance of market linkage for value chain development. Gitau (2019) is also perfectly relevant to the developing country context as it studies Kenyan agricultural cooperatives. It is somewhat relevant to supply chain integration and financial sustainability, and financial accessibility and revenue sources, as it touches on dairy cooperatives' performance and credit management, respectively. However, it does not address market access and diversification challenges.

Cooperative Collaboration and Social Capital

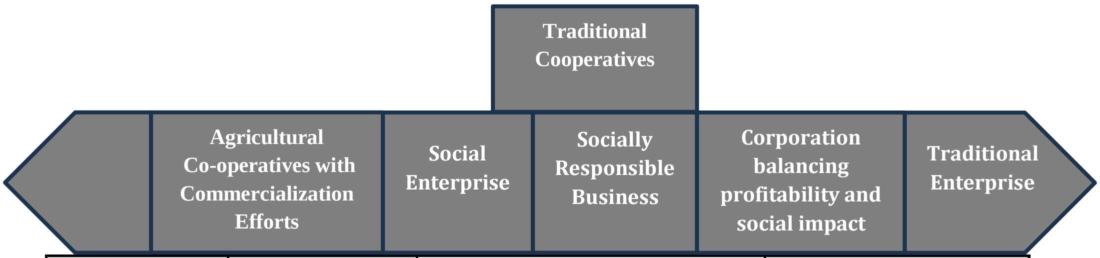
The study found that cooperative collaboration strategies varied by region. Of cooperatives, 44.8% form grassroots partnerships, and 55.2% rely on social capital. While the Central and Eastern Provinces exhibit a higher level of involvement in external partnerships, the Northern Province is heavily dependent on social capital (24 cooperatives). Structured strategic planning has a significant impact on cooperative sustainability, according to quantitative findings ($p<0.001$). The effectiveness of social capital in commercialisation is influenced by trust, networking, and leadership quality, according to thematic analysis. Imami et al. (2021) highlight that cooperatives in Albania accumulate social capital, unlike in Western contexts where social capital may be overused. Agribusiness agents support cooperatives to implement food safety standards, even if it means cooperatives gain countervailing power.

Transition Towards the Double Bottom Line (DBL) Approach

Cooperatives in Sri Lanka are aggressively adopting the DBL model, striking a balance between social impact projects and profitability. According to qualitative research, cooperatives are still involved in social responsibility initiatives like community support, education funding, and women's empowerment. The difficulty of maintaining the DBL approach in a cutthroat market is highlighted by the fact that many cooperatives find it difficult to strike a balance between financial goals and social impact.

Figure 12

Author's Adopted and Developed, Continuum of Cooperative Model



	Purely philanthropic	Hybrid	Purely commercial
Goals	Social value creation	DBL Approach to balance sustainability and social responsibility	Cooperative Sustainability
Motives	Appeal to goodwill	Mixed motives	Appeal to self-interest
Methods	Mission-driven	Balance between mission and CDM	Community based decision making (CDM)
Income distributions	Reinvested in social programmes or operational costs	Reinvested mission-related activities or operational expenses, and/or retained for business growth and development (for-profit may distribute a portion)	Profits are reinvested in cooperative growth and shared among members
Accountability	Stakeholders	Accountable to members and the community, shareholders and stakeholders	Shareholders, members and the community.
Sustainability aim	Social sustainability	Sustainability equilibrium	Cooperative sustainability through social and economic stability.

The figure 12 illustrates a continuum of cooperative models, ranging from traditional cooperatives, which are purely philanthropic, to traditional enterprises, which are purely commercial, with various hybrid forms in between. It highlights the shift from mission-driven approaches to market-driven strategies while maintaining social responsibility. Traditional cooperatives prioritise social value creation, relying on goodwill and reinvesting income into social programmes or operational costs, with accountability to stakeholders and a focus on social sustainability. As cooperatives incorporate commercialisation efforts, such as agricultural cooperatives and social enterprises, they adopt a dual-bottom-line (DBL) approach that balances sustainability with social responsibility, employing mixed motives and balancing mission-driven strategies with community-based decision-making (CDM). These hybrid models reinvest revenues into mission-related activities or business growth while remaining accountable to members, the community, and shareholders. Socially responsible businesses and corporations further integrate profitability with social impact, appealing to self-interest while reinvesting profits into cooperative growth and member benefits. Accountability in these models extends beyond members to include broader stakeholder groups. Ultimately, cooperative sustainability is achieved through a balance of social and economic stability, with each model adapting strategies to maintain long-term viability while preserving cooperative values.

Conclusions

The commercialisation process of agricultural cooperatives in Sri Lanka was thoroughly investigated in this study, which found a promising path towards financial sustainability but also recurring issues with market diversification, supply chain efficiency, and governance. The results show that the shift to value-added agricultural products and organised market integration has been essential in boosting commercial viability, which has allowed most cooperatives to become financially stable. Nonetheless, strategic planning, credit availability, effective supply chains, and high-quality governance continue to be crucial for financial sustainability. In a market that is becoming more and more competitive, cooperatives with strong leadership structures and sound decision-making frameworks exhibit greater resilience and long-term success.

The study also emphasises how crucial cooperative cooperation is to commercialisation initiatives, where social capital is a key factor in promoting sustainability, especially in the Northern Province. The Central and Eastern Provinces, on the other hand, depend more on outside alliances to support operational effectiveness and market expansion. Even though a lot of cooperatives still take part in social impact projects, market forces and budgetary limitations make it difficult to fully integrate the Double Bottom Line (DBL) approach.

Several strategic interventions are suggested in order to improve commercialisation and guarantee the agricultural cooperatives' long-term viability. Improving governance and leadership training to reduce inefficiencies in decision-making, promoting product diversification and market expansion to reduce financial risks, and improving financial literacy and investment strategies to assist cooperatives that are operating below breakeven are some examples. Furthermore, balancing internal social capital with external market-driven partnerships will require bolstering cooperative networks and facilitating access to export markets through cooperation between the public and private sectors.

Through the application of these tactics, Sri Lankan agricultural cooperatives can successfully negotiate the commercialisation environment, attain sustained financial stability while maintaining their fundamental social objectives. Future studies should examine international market integration, digitalisation, and technology adoption as possible avenues to improve cooperative growth and sustainability. For cooperatives to remain competitive, resilient, and successful over the long run in a rapidly changing economic environment, these areas must be strengthened.

Sri Lankan agricultural cooperatives can achieve long-term financial stability while upholding their core social goals by employing these strategies to successfully navigate the commercialisation environment.

Based on the study's findings, actionable recommendations can be structured for key stakeholders to enhance the commercialisation and sustainability of Sri Lankan agricultural cooperatives. For the government, this includes providing targeted financial support, improving access to credit, facilitating export market linkages. For cooperative leadership, priorities include enhancing governance and decision-making processes, investing in leadership and financial management training, promoting product diversification, and building strategic partnerships with both local and external stakeholders. For NGOs and development partners, support should focus on capacity-building programmes, fostering social capital, facilitating knowledge sharing, and assisting cooperatives in implementing the Double Bottom Line approach effectively. Coordinated action across these stakeholders can ensure that cooperatives achieve long-term financial stability while maintaining their core social objectives, enhancing resilience in an increasingly competitive and dynamic market environment.

Future research should focus on how digitalisation, technology adoption, and international market integration can enhance the commercialisation and sustainability of Sri Lankan agricultural cooperatives. Studies could also examine effective implementation of the Double Bottom Line approach, governance improvements, and supply chain optimisation to strengthen resilience. Additionally, comparative regional analyses and evaluation of stakeholder collaborations can provide insights for more targeted policies and capacity-building initiatives.

In conclusion, this study offers original evidence that Sri Lankan agricultural cooperatives are progressing toward commercialisation, though gaps in governance, market diversification, and supply chain efficiency still limit their full potential. The findings justify that stronger leadership, balanced partnerships, and targeted capacity building are essential for sustaining both financial and social goals under the Double Bottom Line approach. Strengthening these areas will be crucial for cooperatives to remain resilient and competitive in a rapidly changing economic environment.

Acknowledgements

This research was funded by the University Research Grant which was granted by the University of Peradeniya for the period of 2022 to 2024. We highly acknowledge the monetary support provided through this grant to successfully conduct this research. We extend our deepest gratitude to all individuals and organisations that contributed to the successful completion of this research. We would also like to acknowledge the invaluable contributions of our research participants, whose willingness to share their time and insights greatly enriched this study. Their cooperation and engagement were fundamental to our findings. A special thanks to our colleagues and collaborators at the University. We also extend our sincere appreciation to the organisations that provided access to essential databases which significantly supported our data collection and analysis. Furthermore, we are grateful to our team of enumerators, whose dedication and diligence in data collection ensured the accuracy and reliability of our findings. Their commitment to conducting fieldwork and gathering valuable insights was instrumental in the success of this research. Additionally, we appreciate the administrative support provided by the non-academic members at the Faculty of Management, which ensured the smooth execution of our research. Thank you all for your contributions and dedication.

Declaration of Funding Sources

Funding from a university was received for this research. This study was made possible through the generous support of the University Research Grants. Their financial assistance played a crucial role in facilitating our research endeavors.

Conflict of Interest Statement

The authors declare no conflict of interest.

References

Bastida, M., Vaquero Garcia, A., Pinto, L. H., & Olveira Blanco, A. (2022). Motivational drivers to choose worker cooperatives as an entrepreneurial alternative: Evidence from Spain. *Small Business Economics, 58*(3), 1609–1626.

Birchall, J., & Simmons, R. (2016). The co-operative reform process in Tanzania and Sri Lanka. *Annals of Public and Cooperative Economics*, 467–500.

Bizikova, L., Nkonya, E., Minah, M., Hanisch, M., Turaga, R. M. R., Speranza, C. I., Karthikeyan, M., Tang, L., Ghezzi-Kopel, K., Kelly, J., Celestin, A. C., & Timmers, B. (2020). A scoping review of the contributions of farmers' organizations to smallholder agriculture. *Nature Food, 1*(10), 620–630. https://doi.org/10.1038/s43016-020-00164-x

Borzaga, C., & Spear, R. (2004). *Trends and challenges for co-operatives and social enterprises in developed and transition countries*. Edizioni31.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.

British Council. (2018). *The state of social enterprise in Sri Lanka*. https://www.britishcouncil.org

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage.

Department of Co-operative Development. (2020). *Annual report on co-operatives in Sri Lanka*. Government of Sri Lanka.

Deterville, A. K. (2022). *Sustainable development: A New Zealand agri-food corporate business and cooperative response* (Doctoral dissertation, Massey University).

Ekanayake, E. (2015). The role of co-operatives in agricultural development in Sri Lanka. *Sri Lanka Journal of Agrarian Studies, 22*(1), 45–60.

Food and Agriculture Organization. (2012). *Agricultural co-operatives: Paving the way for food security and rural development*. FAO.

Fernando, P., & Karunaratne, H. (2017). Financial challenges in Sri Lankan co-operatives. *Journal of Rural Development Studies, 15*(2), 88–102.

Fernando, P. S. (2021). *Value chain integration for rural co-operatives: Comparative analysis in the rice sector in Sri Lanka* (Doctoral dissertation, Massey University).

Gertler, M. (2001). *Rural co-operatives and sustainable development*. Centre for the Study of Co-operatives, University of Saskatchewan.

Gitau, B. N. (2019). Influence of credit management on financial performance of dairy marketing cooperatives in Kenya. *Strategic Journal of Business & Change Management, 6*(3). https://doi.org/10.61426/sjbcm.v6i3.1296

Groeneveld, H. (2020). Reconciling different truths about isomorphic pressure and distinctive behavior at European cooperative banks: Back to the future with Raiffeisen's principles. *Annals of Public and Cooperative Economics, 91*(3), 359–386. https://doi.org/10.1111/apce.12280

Gunawardana, J. (2018). *Co-operatives and rural employment: A Sri Lankan perspective*. Institute of Economic Studies.

Gunawardana, T. (2018). *The impact of liberalization on the Sri Lankan cooperative sector*. Institute of Policy Studies.

Gwiriri, L. C., & Bennett, J. E. (2020). Balancing democracy with service delivery: Power relations, politics and accountability in cooperatives supporting emergent livestock farmers in South Africa. *International Journal of the Commons, 14*(1), 123–138. https://doi.org/10.5334/ijc.973

Harcourt, B. E. (2023). *Cooperation: A political, economic, and social theory*. Columbia University Press.

ICA Asia-Pacific. (2020). *Cooperatives in Sri Lanka*. European Union.

Imami, D., Valentinov, V., & Skreli, E. (2021). Food safety and value chain coordination in the context of a transition economy: The role of agricultural cooperatives. *International Journal of the Commons, 15*(1), 21–34. https://doi.org/10.5334/ijc.1039

International Labour Organization. (2014). *Co-operatives and the sustainable development goals: A contribution to the post-2015 development debate*. ILO.

Jayaweera, P. (1991). *Role of co-operatives in poverty alleviation: A case study of Sri Lanka*. Flinders University.

Jo, I. (2020). Measuring and reporting corporate social performance: An exploratory study for practical application of double bottom line. *Knowledge Management Research, 21*(2), 1–19.

Kabacoff, R. I. (2015). *R in action: Data analysis and graphics with R* (2nd ed.). Manning Publications.

Kadirgamar, A. R. (2021). Contesting agricultural markets in South Asia: Farmer movements, co-operatives and alternative visions. *Millennial Asia, 12*(3), 277–297.

Khoabane, M. J. (2022). *The contribution of poultry cooperatives in improving socio-economic lives of members* (Doctoral dissertation, National University of Lesotho).

Kiriwandeniya, P. A. (1992). *The growth of the SANASA movement in Sri Lanka*. Routledge.

Lele, U. (1981). Co-operatives and the poor: A comparative perspective. *World Development*, 55–72.

Lin, C., & Li, M. (2016). Entrepreneuring the social enterprises with neo-fifth discipline—The emerging reciprocity organization. *American Journal of Industrial and Business Management, 6*(1), 45–59. https://doi.org/10.4236/ajibm.2016.61004

Mahindapala, K. G. J. P., Jayathilake, M. W. A. P., & Jayawardana, L. N. A. C. (2020). Role of agriculture cooperatives as a farmer-based organization in Sri Lanka: Case study in Morawak Korale tea producers' cooperative society. *Journal of Agriculture and Value Addition, 3*(2), 56–72.

Meliá-Martí, E., Tormo-Carbó, G., & Juliá-Igual, J. F. (2020). Does gender diversity affect performance in agri-food cooperatives? A moderated model. *Sustainability, 12*(16), 6575.

Minda, M. H., Boka, M. D., & Nakkiran, S. (2019). Analysis of the governance models applied in agricultural primary cooperatives: The case of Ilu Galan District, West Shawa Zone, Oromia, Ethiopia. *International Journal Online of Humanities, 5*(5), 1–30. https://doi.org/10.24113/ijohmn.v5i5.135

Miroro, O. O., Anyona, D. N., Nyamongo, I., Bukachi, S. A., Chemuliti, J., Waweru, K., & Kiganane, L. (2023). Determinants of smallholder farmers' membership in co-operative societies: Evidence from rural Kenya. *International Journal of Social Economics, 50*(2), 165–179.

Ndlovu, C., & Masuku, M. M. (2021). The efficacy of agricultural cooperatives towards enhancing food security in rural areas: Mbombela Local Municipality, Mpumalanga Province. *Technium Social Sciences Journal, 21*, 661–
.

Ozalp, A. (2019). Financial analysis of agricultural development cooperatives: A case of Western Mediterranean Region, Turkey. *New Medit, 18*(2), 119–132. https://doi.org/10.30682/nm1902h

Pandey, G., Khadka, C., Poudel, A., & Cudnilova, E. (2024). Application of universal cooperative principles in agricultural cooperatives: A case study from Nepal. *International Journal of English Literature and Social Sciences, 9*(3), 105–121. https://doi.org/10.22161/ijels.93.12

Rosairo, H. S. R. (2023). Smallholder agriculture in developing and emerging economies: The case of Sri Lanka. In *Sustainable food value chain development: Perspectives from developing and emerging economies* (pp. 259–293). Springer.

Sahoo, A. K., Meher, S. K., Panda, T. C., Sahu, S., Begum, R., & Barik, N. C. (2020). Critical review on cooperative societies in agricultural development in India. *Current Journal of Applied Science and Technology*, 114–121. https://doi.org/10.9734/cjast/2020/v39i2230850

Samarasinghe, S., & Jayawardena, L. (2021). The double bind conundrum of cooperatives: A study of the Sri Lankan context. *Journal of Cooperative Studies*.

Samarasinghe, V., & Jayawardana, A. (2022). A critical revisit to the principles of cooperatives: A case study of multipurpose cooperatives in Sri Lanka.

Samarasinghe, V., & Jayawardena, D. (2021). The role of co-operatives in neoliberal Sri Lanka: A case study. In *International Conference on Business Research* (pp. 21–36). University of Moratuwa.

Samarawickreme, N. D. (1997). Changes in economic policy and their impact on internal trade in Sri Lanka. *Modern Sri Lanka Studies*, 49–81.

Simatele, M., & Dlamini, P. (2020). Finance and the social mission: A quest for sustainability and inclusion. *Qualitative Research in Financial Markets, 12*(2), 225–242.

Sumanasekara Banda, S. J. (1976). *Sri Lanka samupakaraye wardhanaya [Growth of cooperatives in Sri Lanka]*. The Cooperative Federation of Ceylon.

Trochim, W. M. K. (1989). Outcome pattern matching and program theory. *Evaluation and Program Planning, 12*(4), 355–366.

Twumasi, M. A., Jiang, Y., Addai, B., Ding, Z., Chandio, A. A., Fosu, P., Asante, D., Siaw, A., Danquah, F. O., Korankye, B. A., Ntim-Amo, G., Ansah, S., & Agbenyo, W. (2021). The impact of cooperative membership on fish farm households' income: The case of Ghana. *Sustainability, 13*(3), 1059. https://doi.org/10.3390/su13031059

Wijesinghe, L. (2020). Sustainability initiatives in Sri Lankan agricultural co-operatives. *Asian Journal of Agricultural Economics, 30*(3), 112–128.

Wijesinghe, S. (2020). Challenges to Sri Lankan cooperatives: Market dynamics and the decline of cooperatives in rural areas. *Asian Journal of Development*.

Wimalasena, H., & Rupamoorthy, K. (2005). A review of the present status of fishermen's cooperatives of Sri Lanka. *National Aquatic Resources Research & Development Agency*, 40–60.

Winslow, D. (2002). Co-opting cooperation in Sri Lanka. *Human Organization*, 9–20.

Yamagishi, K., Sañosa, A., de Ocampo, M., & Ocampo, L. (2021). Strategic marketing initiatives for small co-operative enterprises generated from SWOT–TOWS analysis and evaluated with PROMETHEE–GAIA. *Journal of Co-operative Organization and Management, 9*(2), 100149.

Yin, R. K. (2002). *Case study research: Design and methods* (3rd ed.). Sage.

Annexure:

Data set:
https://drive.google.com/file/d/1_NuPb3IBPuq1knm6Hd6BBhLTL907JfZZ/view?usp=sharing

R programme:
https://drive.google.com/file/d/1oKe4ie3Doq3x72rZ9i8l3U9da5Yuv3wT/view?usp=sharing

R Output:
https://drive.google.com/file/d/1A24PLe_ukCrJanzLf_Ch6JcngClfkBM2/view?usp=sharing