



THE ROLE OF COOPERATIVES IN FOSTERING THE RURAL WOMEN EMPOWERMENT

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ABSTRACT

Women empowerment is imperative to the socio-economic well-being of not only women but also the future generation of a nation. On the other hand, cooperatives: the "silent giants", are independent social entities with closer proximity by rural women. Despite the long-lasting importance and its greater recognition of both aspects in the economic pursuit, hardly a single study has tested the contribution of cooperatives in boosting women empowerment in the context of rural women. Thus, the present study examines the contribution of cooperatives, in particular their social, economic, political, and environmental contributions, towards inspiring rural women empowerment. A randomly drawn sample of 2600 female members representing 152 Sri Lankan cooperative societies covering all the rural administrative districts (except Jaffna) was surveyed. The guided survey was instrumentalized with a self-administrative questionnaire of 50 items. The results generated empirical evidence on the cooperatives' critical role in enhancing rural women empowerment. Notably, the social, economic, political, and environmental contributions find crucial in affecting the economic, social and political empowerment of rural women. However, the study fails to generate sound evidence to support the role of age, level of education, and experience on the established relationships. Implications are drawn to promote the awareness and engagement of rural women while enhancing functions and diversity of activities on the part of policymakers.

Keywords: women empowerment; cooperatives; rural sector; economic contribution; social contribution; political contribution; environmental contribution

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1. Introduction

"To call woman the weaker sex is a libel: it is man's injustice to women. If by strength is meant moral power, then women are immeasurably man's superior" (Gandhi, 1930).

In the 1930s, when Gandhi signalled the incomparable moral power of women, the concept of women empowerment has been focal of attention by neither the researchers nor the practitioners. However, due to the radical structuring of all the frontiers of human life, women became more and more powerful, claiming equal demands and rights to work and live. The concept of women empowerment started appearing in society during late 1980s paving the way towards a new era with a great representation of the most attractive demographic cohort of the world population. The United Nation's (UN) Third World Conference on Women held in Nairobi was pioneered in setting up the keystone definition of women empowerment. UN defined the

term "women empowerment" as a redistribution of social and economic powers and control of resources favouring women (UN, 1985).

The United Nations Development Fund for Women (UNDFW) stemmed two main factors into the definition of women empowerment. The first was to acquire knowledge and understanding of gender relations and their patterns of change. The second was to develop a sense of self-worth, a belief in one's ability to secure desired changes and the right to control one's life (UNDFW, 1985). However, the practice evidenced that the second fact is closer to today's shared understanding of women empowerment. As such, women empowerment has been defined by Mayoux (2005) and Mosedale (2005) as a mechanism where women become strong by increasing their confidence to make appropriate choices and control resources. Additionally, Narayan (2002) reflected women empowerment as the increasing control and ownership of assets by women to influence and bargain over any decision that affects their lives. The contemporary evidence of how the concept has been defined and applied shows a similar theme even though its scope has widened to cover macro-level global application from micro-level individual concerns of the concept.

With the broad women participation in all spectrums of economic and social activities, women's empowerment or female empowerment achieved greater attention in the scholarly world. Resultantly, women empowerment often became a central focus of many women-oriented policy frameworks (Kabeer, 2005). These policy reforms are usually devoted to raising women's education, awareness, literacy, and training (Mosedale, 2005; Kabeer, 2005). The empowered women are believed to be armed well to make life-critical decisions for themselves and their children through the different problems in society (Bayeh, 2016).

The economic pursuit of women's empowerment has recently become an essential topic of discussion in development economics. Economically empowered women can control and benefit from resources, assets, and income. It also aids the ability to manage risk and improve women's well-being (Oxfam, 2015). Women empowerment helps boost women's status through literacy, education, training, and awareness creation (Lopez, 2013). Not only that but also empowered women found making better strategic life choices than those who don't (Kabeer, 2011). The benefits of women empowerment are not limited to women. They are also beneficial to many stakeholders of diverse societal scales, including nations, businesses, and communities. Women's empowerment enhances the quality and the quantity of human resources available for development (Gupta and Yesudian, 2006), resulting in significant growth potential within the economically active population of any nation.

Women Empowerment theoretical and empirical development covers diverse facets of the construct, ranking from forming definitions to testing epistemological associations with numerous related constructs. For instance, the socio-economic empowerment of women has been tested extensively with poverty (Narayan-Parker, 2002; Khanna et al., 2015; Nadim and Nurlukman, 2017) microfinance (Sultana et al., 2017; Mudaliar and Mathur, 2015; Addai, 2017), health and wellbeing (Kumar et al., 2019; Fielding and Lepine, 2017; Rehman and Ansari, 2020), social support (Abdollahpour and Keramat, 2016), the contribution of cooperatives (Tsfay and Tadele, 2013; Kabeer, 2011; Trivedi et al., 2011), economic development (Duflo, 2012; Mehra, 1997; Sohail, 2014; Bhoganadam et al., 2014), education (Sundaram et al., 2014; Shetty and

Hans, 2015), leadership (Mehta and Sharma, 2014; Denmark, 1993), entrepreneurship (Sathiabama, 2010; Bhuiyan and Abdullah, 2007), gender equality (Hills, 2015; Ejumudo, 2013), feminism (Baig, 2020; Worell and Remer, 2002) and much more.

As far as the women's share in the world population (49%+) is concerned, the economic impact of women empowerment can't be overlooked. Therein, cooperatives can be identified as an ideal organizational structure that has been closing interacting with the socio-economic performance of women in the formal and informal sectors. The cooperatives play a paramount role at the macro-level in uplifting the women's social-economic well-being (Tesfay and Tadele, 2013; Kabeer, 2011). The origin of the cooperative concept ran back to the 18th century. The original intention of forming cooperative societies was to protect the right of economically deprived people (Tesfay and Tadele, 2013). A cooperative society is a gathering of people who share a common purpose. They have voluntarily joined together to form a democratically controlled enterprise, making equitable contributions to the capital required and accepting a fair share of the risk and benefit of the undertaking in which the member activity participates (Helms, 2005). They value self-help, self-responsibility, democracy, equality, equity, and solidarity (Tesfay and Tadele, 2013). Members are at their heart, leading to greater participation in decision-making (Kimberly and Robert, 2004). Cooperatives generate considerable socio-economic benefits for their members. From the economic perspective, cooperatives improve their members' income and bargaining power. While the social purposes of cooperation are more diverse than financial purposes. They provide a unique opportunity for education and training and encourage active participation in meetings, committee membership, and leadership positions (Majurin, 2012).

Numerous studies have investigated the cooperatives' contribution over a broader range of fates (Tesfay and Tadele, 2013; Kabeer, 2011; Trivedi et al., 2011; Eucharia, 2018). In general, many of them are oriented on macro-level economic development and growth, thus failing to spot the impact at the individual level. Additionally, the role of cooperatives in practice is unseen or else not spelt out in the development agendas (Eucharia, 2018; Standing, 2008), resulting in poor focus and resources to develop the field. Further, the contribution of cooperatives in the developing countries' context (i.e., South Asia) demands far-reaching attention due to the heterogeneity of the current understanding. More specifically, the contribution of cooperatives towards the enhancement of the socio-economic well-being of rural women calls for further investigations.

As such, the findings of the present study will contribute to the extant literature by identifying the impact of cooperative societies in terms of social, economic, political, and environmental towards empowering rural women in Sri Lanka which is less focused in the extant literature. The following sections discuss the literature review, research methodology, results and discussion and conclusion.

2. Literature Review

Women Empowerment

Women empowerment is defined as the process of having and using resources in an agentic manner to reach specific achievements (Kabeer, 1999; Bali et al., 2009; Khan, 2016). Psychological research suggests that empowerment is a process that enables people to act on and improve issues that are important for their individual lives, their communities, and their society (Bandura, 1986; Cattaneo and Chapman, 2010). Sushama (1998) defined the term women empowerment as a situation in which women can participate fully in social, political and economic spheres of life. Empowering women entails creating an enabling environment in which women can implement government programmes and organizational policies that affect their lives (Aspy and Sandhu, 1999; Patricia et al., 2003). Most women in developing countries do not have access to education, productive resources and other services. Such discrimination hampers them from earning incomes and not actively participating in socio-economic and political conditions (Kebeer, 1999). Women empowerment as a global plan is expected to address this gender-based discrimination. Although women empowerment is not a sufficient condition, it is still necessary for the development process. The study underpinned the three dimensions of women's empowerment, namely, economic, political and social (Mujahid et al., 2015).

Economic Empowerment

In a study by Tornqvist and Schmitz (2009), women's economic empowerment is defined as a "process that results in enhancing the real power of women so that she can make economic decisions which in turn results in affecting their own lives". It implies that they have the power to make their own economic decisions. Economic empowerment is directed at removing identified obstacles to the full participation of women in money-yielding ventures. Through this, the formation of women-only cooperative societies is encouraged. Economic empowerment is the key to breaking the vicious cycle of gender inequality. In empowering women economically, it is necessary to address women's weak access to financial resources and their inability to make economic decisions that will enhance their well-being and their families.

Political Empowerment

Politics is the act of governance, and it is through politics and power that government affects many lives. Desai and Thakkar (2007) discuss women's political participation, legal rights, and education as tools for their empowerment. Argawal (2001) stressed that the worth of the right of ownership and use of resources depends on the process of decision-making through which rights are used, contested and adjudicated. These processes need to be stressed until women are present at the decision-making table, or their concerns will remain marginalized. The oppressive division between the private and public spheres will persist (Elsadda and Haper, 2008). Thus, women need to be empowered politically to force their issues onto the discussion

agenda. It, therefore, requires the political organization of women at the grassroots, national and international levels.

Social Empowerment

Women empowerment's societal dimension has been assessed with indices that map gender gaps in human development across nations, such as the Gender Development Index, or specific components, such as the percentage of parliamentary seats held by women. Prakash (2002) emphasized that the social empowerment of women is a process whereby women can exercise their rights and duties with confidence, and they can participate in the management process of their cooperatives. Okeke (2015) argued that the social empowerment of women stipulates equal opportunity for all, irrespective of sex or religion. Social empowerment of women through the dismantled oppressive social structures will restore the dignity of women hood and enhance their self-image. Such empowerment efforts fundamentally alter social and institutional frameworks to promote gender equality, prompting a reorganization of productive and reproductive roles within society.

Cooperatives

According to the International Cooperative Alliance (ICA, 2015), a cooperative refers to autonomous associations that bring individuals together through volunteering to fulfil their cultural, economic, and social needs and aspirations democratically and jointly. It is a business voluntarily owned and controlled by its member patrons and operated for them and by them on a nonprofit or cost basis (UWCC, 2002). It is a business enterprise that aims at the complete identity of the component factors of ownership, control and use of service, three distinct features that differentiate cooperatives from other businesses (Laidlaw, 1974).

Cooperatives across the world have a long history as they evolved around the 18th century in Europe with the notion of protecting economically poor people from exploiting the economically powerful (Subbura, 2003). Also, in the mid 1700s French consumers attempted to establish cooperatives (Williams, 2007; Zeuli and Cropp, 2004). Despite these historical roots of cooperatives in the West, the current form of cooperatives worldwide is primarily inspired by the Pioneers' Co-operative Society of England. In 1844, a group of working-class men called the Pioneers' Co-operative Society founded the modern cooperative movement in Rochdale in Lancashire, England, to provide an affordable alternative to poor quality and adulterated food and provisions, using any surplus to benefit the community (Williams, 2007; Winslow, 2002; Zeuli and Cropp, 2004). Due to this unique nature of the 'cooperative concept', cooperatives were welcomed by many countries worldwide. In fact, in the early twentieth century, the British colonial rulers of India had established cooperatives to improve the economic condition of Indian farmers under the Cooperative Societies Act of 1904 (Kunal, 2013). Similar developments were reported in other parts of the world, making cooperative movement a significant force in the economic and social sphere (Gooneratne, 1966; Williams, 2007).

Cooperatives in Sri Lanka

As history shows, the cooperative movement has significantly impacted the economy and lives of ordinary people in independent Sri Lanka, particularly during the 1950s and 1970s. However, its 'ups' and 'downs' were subject to 'national economic policy oscillated between "open, market-oriented industrialization" [during 1952-1955 and 1965-1970] regimes and "closed, state-controlled, import substitution industrialization" [during 1956-1964 and 1970-1977] ones' (Winslow, 2002). For instance, in the 1940s, there were nearly 4000 registered cooperative societies in the country (Department of Co-operative Development, 2017). But, in the context of independent Sri Lanka in the 1950s, the number has increased by more than three times.

In par with this development, the amendment of the Cooperative Societies Ordinance in 1921 accelerated the registration of societies by enabling the registration of non-credit societies. Resultantly, between 1944 and 1958, membership in the societies boomed by more than 60%, from 826,814 to 1,327,273 (Department of Co-operative Development, 2017). Since its modest origin in the latter stage of the British colonial era of the country, cooperatives in Sri Lanka have been able to provide their members with social and business spaces. Additionally, they actively contributed to the welfare and well-being of Sri Lankan society's 'common man' or 'weaker sects'.

The Contribution of Cooperative Societies

Today, cooperatives are an essential voluntary organization throughout the world. In some countries, they are the leading organization in agriculture, marketing, providing credit, and distributing consumer goods. Across the globe, cooperatives facilitate economic growth by creating jobs and providing financial assistance to households. In terms of economic contribution, the 300 largest cooperatives generate more than US \$ 2000 billion in turnover while operating in numerous areas (World Cooperative Monitor, 2019). Cooperatives are democratically owned and governed enterprises guided by self-help, self-responsibility, democracy, equality, equity and solidarity. They put people at the heart of their activities and allow members to participate in the decision-making (Kimberly and Robert, 2004). Cooperatives generate considerable socio-economic benefits for their members. From an economic standpoint, cooperatives improve their members' income and bargaining power. At the same time, the social purposes of cooperation are more diverse than financial purposes. Cooperatives have a role to play in alleviating different shocks and paving the way towards socially and economically sound and sustainable recovery.

The psychological process of women's empowerment involves designing new skills and techniques that motivate and empower women, as explained in Albert Bandura's Social Cognitive Theory. According to Social Cognitive Theory, motivation plays a crucial role in helping women achieve their goals and desired outcomes. Previous literature has identified four key structures within Social Cognitive Theory, namely, outcome expectations, self-regulation, self-efficacy, and social support (Nazari et al., 2020). Social support, one of these structures, refers to the level of endorsement and assistance individuals receive from society in pursuing their goals. It reflects the support system of society toward individuals' activities aimed at achieving

desired outcomes (Lim et al., 2020). Within the framework of Social Cognitive Theory, the study posits that cooperatives contribute as a form of social support, thereby motivating and empowering women.

Social Contribution

Cooperatives are voluntary associations having a member-owned and members-controlled enterprise. Members of cooperatives have to understand the mechanics of self-help, the principles of co-operation and the underlying values. They have to be motivated to work together for their individual and shared benefit. Ultimately, cooperatives can create a safe environment where women increase their self-confidence, identify their challenges, make decisions and manage risks (Chaves and Monzón, 2018; Chaves and Savall, 2019; Monzón and Chaves, 2017). Majurin (2012) revealed that cooperatives are also effective entry points for addressing a broad range of gender equality issues such as unpaid work, shared responsibilities and gender-based violence. A study by Gita (1993) depicted that 57.7% of women in cooperatives take initiatives to organize cultural programs in their community against only 10.7% of women in the unorganized sector. Cooperatives also permeate the social aspect of life and aim at establishing a new democratic social order based on freedom and equality, where people live in harmony, caring and sharing like a family, where there is a unity of spirit and common economic bond (Karunakran, 2004; Warman and Kennedy, 1998). As a result, women are empowered and become active agents of change, entrepreneurs and promoters of social transformation who can improve their own lives and communities.

Economic Contribution

As cooperatives foster economies of scope and scale, they increase the bargaining power of their members, providing them, among others, benefits, higher income and social protection. Hence, cooperatives accord members opportunity, security and empowerment-essential elements in uplifting them from degradation and poverty (Somavia, 2002). As governments worldwide cut services and withdraw from regulating markets, cooperatives are considered valuable mechanisms to manage risk for members and keep needs efficient (Henehan, 1997).

Cooperatives provide plenty of opportunities for their members to be involved in different income-generating activities such as petty trade, the establishment of irrigation schemes, agricultural production and process, etc. (Young, 1992). According to Somavia (2002), cooperatives are seen explicitly as powerful tools for creating decent jobs and for the mobilization of resources for income generation. Many cooperatives provide jobs and pay local taxes because they operate in specific geographical regions. Levin (2002) estimated that cooperatives employ more than 100 million men and women worldwide. They can provide their employees with the opportunities to upgrade their skills through workshops and courses and offer youth in their base communities short and long-term employment positions. Through cooperatives, millions of women have changed their lives they have found a route towards self-empowerment and development that works for them.

Cooperatives have contributed to improved livelihood and better economic decision making of women (Nippierd, 2002).

Political Contribution

The cooperatives are no longer perceived as state-financed development tools in government hands but rather as private initiatives of citizens who are encouraged to mobilize their resources to improve their situation. They put people at the heart of their activities and allow members to participate in the decision-making (Kimberly and Robert, 2004). A survey conducted by a Women Empowerment Program in Nepal showed that an average of 89,000 out of 130,000 (68%) women in its program experienced an increase in their decision-making roles in family planning, children's marriage, and buying selling property. Notably, the participants showed a remarkable trend towards sending their daughters to school. Nevertheless, men traditionally dominated these decisions (Kabeer, 2005). They provide a unique opportunity to members to education and training encourage active participation in meetings, committee membership and leadership positions (Majurin, 2012). Cooperatives have been successful in increasing the social participation of women and developing drives, initiatives, and leadership qualities (Ufoaroh, 2017). These factors ultimately pave the pathway towards women's economic, social, and political empowerment.

Environmental Contribution

Over the years, cooperative societies have practised a solidarity economy, that is, an economy that is people-oriented and shows concern for all, especially their most vulnerable members, to ensure their protection by distributing the surplus from their operations (Restakis et al., 2011). Cooperatives recognize their accountability to members, employees, customers, suppliers, other cooperatives, and the larger society. Many of these stakeholders also share ownership of the cooperative. Corporate responsibility is embedded in cooperative organization and operation principles and can inspire growing corporate sector efforts in this direction (Young, 1992). Ravensburg (2009) notes that when cooperative entrepreneurs provide mutual help, it positively affects their income enhancement. Their businesses become stabilized because working conditions are favourable. These are significant roles that bring about social empowerment, especially for the vulnerable and those who do not have the power to make choices. Empirical evidence highlights the role of cooperatives in empowering women (Bharti, 2021; Tesfay and Tadele, 2013), yet the holistic view of cooperative contribution in terms of social, economic, political and environmental in empowering women, particularly in developing contexts, is understudied in the extant literature. Therefore, this study aims to identify how the contribution of cooperatives empowers women through testing the following hypotheses.

H₁- Social contribution of cooperatives empowers women

H₂- Economic contribution of cooperatives empowers women

H₃- Political contribution of cooperatives empowers women

H₄- Environmental contribution of cooperatives empowers women

The Role of Demographic Factors

Many studies suggest that women empowerment is influenced by personal factors (Parveen and Leonhauser, 2005), including age, education, and jobs (Sen, 1997). Boehnke (2011) found that younger women also had less varied understandings of empowerment than middle-aged women. It might be that younger women had not yet developed a broad awareness of different elements of empowerment beyond equality in terms of the ability to earn money. In the early stages of their marriage, younger women might also be struggling with the need to support their family financially and, as a result, emphasize income related aspects of empowerment. On the other hand, women with higher educational attainment were more likely to flag several elements as constituents of empowerment. In particular, women who attended at least high school were more likely to agree with any of the given interpretations of empowerment than women without any formal education, except for understanding empowerment as “making more money”, for which no difference between these two groups of women is indicated (Marc and Philippe, 2020).

Moreover, highly educated women in Bangladesh made more economical, and household decisions made them more empowered (Haque et al., 2011). Similarly, Sheikh et al. (2020) observed educated women in Pakistan who were economically strong were more empowered to make decisions about reproductive and household affairs. Based on these arguments, the following hypotheses are derived to investigate the moderating effect of age, level of education and experience between the contribution of cooperatives and women empowerment.

H₅₋₇ – The effect of the contribution of cooperatives on women empowerment is moderated by demographic factors (Gender, Education Level and Experience).

In addressing the lapses and disconformities of the general understanding, the present study developed the following conceptual model (Figure 1).

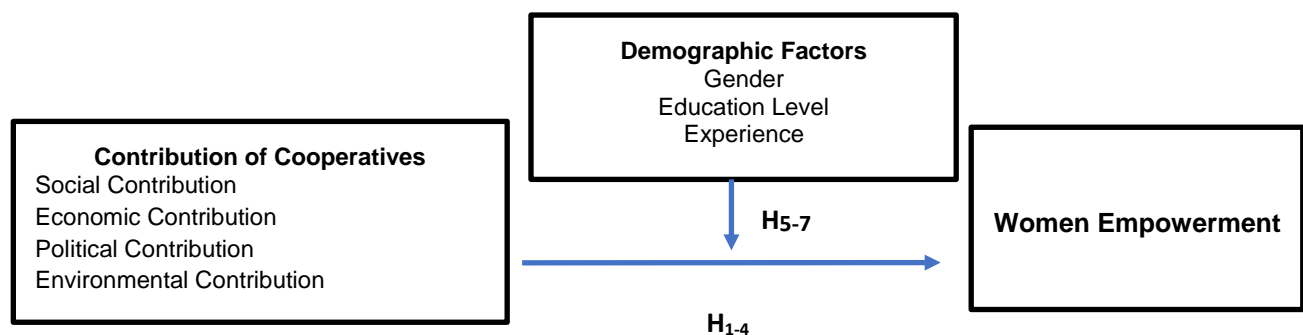


Figure 1 Conceptual Framework

Source: Developed by the authors (2021)

3. Research Methodology

The study followed the quantitative research approach. It aimed to assess the contribution of cooperatives toward rural women empowerment. Notably, it tested the social, economic, political, and environmental

contribution of Sri Lankan cooperative societies on rural women empowerment. Following Thomason et al. (2018), the contribution of cooperatives is assessed across four dimensions: social, economic, political, and environmental. A three-component measure evaluated the sample's economic, social, and political empowerment. Apart from that, three categorical moderators were introduced (i.e., age, education, and experience/ length of the membership).

The population is comprised of women members of cooperative societies in Sri Lanka. As per the National Report: Sri Lanka by International Co-operative Alliance/Asia Pacific (2019), 5, 265,000 women constitute the population. The minimum sample requirement based on the Krejcie and Morgan recommendation was 384 (Krejcie and Morgan, 1970). However, the researchers intended to explore a representative sample proportionately selected covering cooperative societies of all districts (except Jaffna District) in Sri Lanka. Accordingly, the final sample included 2600 female members representing 152 cooperative societies. These include mainly the multi-purpose, thrift & credit, livestock dairy, agriculture & agriculture production, fisheries, and industrial societies. The instrument was a self-administrative survey questionnaire (50 Items) measuring the perception of female members on the contribution of societies and their economic, political, and social empowerment. The response scale was a 9-point scale that denotes "Extremely disagreeable" and 9 "Extremely agreeable". The researchers visited the randomly selected members of chosen cooperative societies (258), and the team interviewed 152 cooperative societies to fill out the questionnaire. The collected data were analyzed using descriptive analysis and Partial Least Square-Structural Equation Model (PLS-SEM) in the SmartPLS version 3.

4. Analysis and Discussion

The respondents of the study comprised women of different ages and educational backgrounds. Demographic profiles of the respondents show that the majority of them belong to the 41-50 age category (30%), and 52% of them have completed secondary education (Table 1).

Table 1. Demographic Profiles of Respondents

	Attribute	Frequency	Percentage (%)
Age	21-30	324	12
	31-40	643	25
	41-50	786	30
	51-60	565	22
	60 Above	282	11
Educational Background	No Formal Education	203	08
	Primary Education	507	19
	Secondary Education	1344	52
	Post-Secondary Education	546	21

Source: n = 2600, Survey (2021).

Concerning their involvement with the cooperative societies, the most popular cooperative society category was multi-purpose societies (50%), and over 51% of the members have joined cooperatives for accessing credit facilities. However, most members' membership period is less than ten years (Table 2).

Table 2. Cooperative Society Membership Attributes

	Attribute	Frequency	Percentage (%)
	Multi-Purpose Cooperative Societies	1304	50
Form of Cooperative Society	Thrift & Credit	854	33
	Livestock Dairy Societies	21	01
	Agriculture & Agriculture Production	140	05
	Fisheries	81	03
	Industrial	29	01
	Others	171	07
Period of Membership (Years)	1-5	747	29
	6-10	769	30
	11-15	494	19
	16-20	185	07
	20 above	405	15
Main Reason for joining	Access to credit	1322	51
	Improve savings	790	30
	Increase bargaining power	45	02
	Reduce marketing risks	251	10
	Others	192	07

Source: n = 2600, Survey (2021).

Assessment of Measurement Model

The study aimed to evaluate the contribution of cooperatives to women's empowerment across political, social, and economic dimensions and women empowerment served as the endogenous variable. The exogenous variable, Contribution of Cooperatives, was assessed across social, economic, political, and environmental dimensions to understand its impact on women empowerment. Age, education, and experience (membership period) are presented as categorical moderators of the structural model. The latent variables of each of the two principal variables formed the first-order measures of which the measurement model was first analyzed for its reliability and validity (Hair et al., 2017). Factor loadings of all the items leading to two constructs satisfy the threshold value 0.708 at the 95% confidence level (Table 3).

The items with lower factor loading were excluded (< 0.708; Hair et al., 2020). Resultantly, four Social Contribution items (SC3, SC6, SC7, and SC8), one Economic Contribution item (ECONC6), five Political Empowerment items (PE2, PE3, PE4, PE6, and PE7), one Social Empowerment item (SE4), and six Economic Empowerment items (EE1, EE2, EE3, EE4, EE5, and EE9) were removed from the first-order measurement model.

The Cronbach Alpha values of all constructs except political empowerment fall into the acceptable zone (< 0.7; Nunally, 1978).

Table 3. Properties of First-Order Measurement Model

Construct/Item	Loading	t-Statistics	CR	AVE	rho_A	Cronbach Alpha
Contribution of Cooperatives----- Social Contribution						
SC1	0.820	76.980	0.910	0.628	0.882	0.882
SC2	0.819	68.073				
SC4	0.798	72.253				
SC5	0.772	57.594				
SC9	0.771	68.365				
SC10	0.776	68.664				
Contribution of Cooperatives ----- Economical Contribution						
ECONC1	0.760	57.081	0.877	0.589	0.827	0.825
ECONC2	0.718	50.712				
ECONC3	0.799	69.485				
ECONC4	0.797	83.599				
ECONC5	0.761	62.722				
Contribution of Cooperatives----- Political Contribution						
PC1	0.811	72.387	0.908	0.712	0.865	0.865
PC2	0.859	107.193				
PC3	0.865	104.183				
PC4	0.838	62.722				
Contribution of Cooperatives ----- Environmental Contribution						
EC1	0.857	75.534	0.866	0.764	0.700	0.693
EC2	0.891	153.639				
Women Empowerment----- Political Empowerment						
PE1	0.840	80.066	0.775	0.634	0.636	0.626
PE5	0.749	34.811				
Women Empowerment----- Social Empowerment						
SE1	0.837	92.500	0.854	0.662	0.746	0.744
SE2	0.828	83.433				
SE3	0.774	59.931				
Women Empowerment----- Economic Empowerment						
EE6	0.786	60.809	0.855	0.663	0.748	0.746
EE7	0.833	84.098				
EE8	0.824	84.299				

Source: n = 2600, Survey (2021).

The Cronbach alpha coefficient of political empowerment is lower than the criterion value, as Nunally (1978) suggested. However, Griethuijsen et al. (2014) proposed that values above 0.6 are acceptable for the initial development of an instrument. Similarly, Henseler's rho (rho_A) values of these constructs also range from 0.636 to 0.882. Further, these constructs' Composite Reliability (CR) falls in between 0.775 and 0.910. Likewise, all measures of internal consistency, except for the political empowerment construct, scored well above the threshold value of 0.7 as recommended by Nunally (1978). Again, the Cronbach Alpha coefficient and Henseler's rho value of political empowerment were treated as acceptable based on Griethuijsen et al.'s suggestion (2014). Thus, the reliability of first-order constructs' instruments is ensured. Factor Loading and Average Variance Extracted (AVE) are considered standard measures of the convergent validity (Hair et al., 2017; Byrne, 2016; Bagozzi and Yi, 1998; Fornell and Larcker, 1981). The AVE values of these constructs fall between 0.589 and 0.764. Convergent validity of the constructs is considered adequate when the AVE value exceeds 0.5 (Bagozzi and Yi, 1998; Fornell and Larcker, 1981). Additionally, factor loadings of latent variables greater than 0.708 are theorized to explain a minimum of 50% or more of the indicator's variance (Hair et al., 2017). Here, the factor loadings of all the indicators of the first-order model are between 0.718 and 0.891. Accordingly, it is evidenced that all constructs satisfy the convergent validity criterion.

Next, the first-order constructs are examined for their discriminant validity. For an acceptable level of discriminant validity, Fornell and Larcker (1981) recommended that the AVE of a latent variable should be higher than the squared correlations between the latent variables and all other variables (Chin, 2010; Fornell and Larcker, 1981). Table 4 demonstrates the correlation matrix with the square roots of AVEs on the diagonal line (in Bold), which indicates an acceptable level of discriminant validity according to the Fornell and Larcker criterion (i.e., AVE criterion). Additionally, cross-loadings are also used as a discriminant validity measure where it is expected to load highest on the construct it is associated with (Henseler et al., 2015; Voorhees et al., 2016). Examination of loading of each indicator on its respective latent variable ensured that all are loaded highest on the latent variable for which they are assigned. Thus, all the constructs of the first-order model were confirmed to hold an acceptable level of discriminant validity.

Table 4. Properties of First-Order Measurement Model

Contribution of Cooperatives		1	2	3	4
1	Economic Contribution	0.768			
2	Environmental Contribution	0.584	0.874		
3	Political Contribution	0.712	0.623	0.844	
4	Social Contribution	0.725	0.552	0.653	0.786
Women Empowerment		1	2	3	
1	Economic Empowerment	0.814			
2	Political Empowerment	0.354	0.663		
3	Social Empowerment	0.563	0.476	0.814	

Source: n = 2600, Survey (2021).

Assessment of Structural Model

Once the properties of the measurement model are assessed for reliability and validity, the structural model is estimated to evaluate the effect size of the exogenous variable on the endogenous variable. Assessment of structural model usually involves assessing the path coefficients, assessing the collinearity, estimating the coefficient of determination, deciding on effect size, and testing for predictive relevance of the model (Hair et al., 2014). The significance of the path coefficient can be assessed using the P-value and t-value of the path. As such, path coefficients of those the p-value is less than 0.05 (for 95% confidence level) and t-value greater than 1.96 (for a 2-tailed test) are considered significant (Hair et al., 2017). The bootstrapping process of the second-order model results that some paths are statistically substantial while some don't (Table 5).

Table 5. Path Coefficients of Structural Model

Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Social Contribution > Women Empowerment				
0.279	0.28	0.027	10.523	0.000**
Economic Contribution > Women Empowerment				
0.304	0.305	0.027	11.189	0.000**
Political Contribution > Women Empowerment				
0.158	0.157	0.028	5.608	0.000**
Environmental Contribution > Women Empowerment				
0.148	0.147	0.022	6.856	0.000**
Age*Contribution of Cooperatives > Women Empowerment				
0.015	0.014	0.021	0.682	0.495
Education*Contribution of Cooperatives > Women Empowerment				
-0.033	-0.032	0.017	1.907	0.057
Experience*Contribution of Cooperatives > Women Empowerment				
-0.011	-0.012	0.022	0.497	0.620

Source: n = 2600, Survey (2021).

The Contribution of Cooperatives towards Women Empowerment finds statistically significant for social, economic, political, and environmental dimensions. All four paths explaining the Contribution of Cooperative societies towards Women Empowerment possess significant path coefficients, where p-value < 0.05 and t value > 1.96 (Hair et al., 2017). However, the three paths testing the moderating effects of age, education, and experience of women are statistically insignificant as they hold a p-value less than 0.05 (Age*Contribution of Cooperatives > Women Empowerment path: p-value = 0.495, t value = 0.682, Education*Contribution of Cooperatives > Women Empowerment path: p-value = 0.057, t value = 1.907, Experience *Contribution of Cooperatives > Women Empowerment path: p-value = 0.620, t value = 0.497) The significant paths should

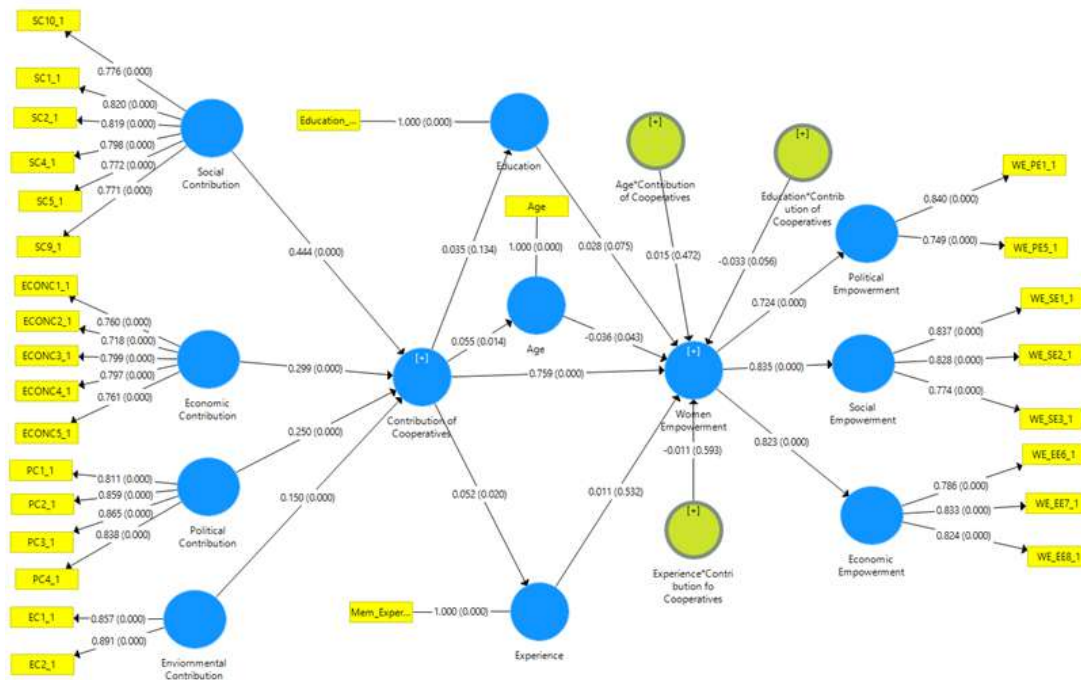
be next assessed for their multicollinearity (Hair et al., 2014). The Variance Inflation Factor (VIF) of the PLS algorithm is used to decide on possible multicollinearity issues. Hair et al. (2017) suggested no multicollinearity is presented when the VIF values are less than 5.0 (Hair et al., 2017). VIF values of all the inner model constructs are well below the threshold value (< 5.0). Hence, it is confirmed that the structural model constructs are free of multicollinearity problems (Table 6).

Table 6. VIF Values of Structural Model

Construct	VIF
Economic Contribution	2.736
Environmental Contribution	1.786
Political Contribution	2.457
Social Contribution	2.340

Source: n = 2600, Survey (2021).

The coefficient of determination (R^2) is examined to weigh the explained variance. PLS algorithm of the structural model resulted in 0.579 of R^2 value. Based on the independent variables' ability to account for 57.9% variance of the dependent variable, it is concluded that there is a substantial level of influence by the cooperative societies on rural women empowerment (Hair et al., 2017; Cohen, 1988). The above results are depicted in the path diagram of figure 2.



Source: n = 2600, Survey (2021).

Figure 2. Path Diagram-Structural Equation Modelling

The effect size (f^2) of the PLS algorithm is the next measure of the structural model. The effect size is defined as "the increase in R^2 relative to the proportion of variance of the endogenous latent variable that remains unexplained" (Cohen, 1988; Henseler et al., 2009). Hair et al. (2017) and Cohen (1988) noted $> 0.35 - f^2$ value is regarded as larger effect size, $> 0.15 - f^2$ value: medium effect size and $> 0.02 f^2$ value equal to smaller effect size. Table 7 contains the effect size of corresponding latent constructs.

Table 7. Effect Sizes (f^2) of Structural Model

	Women Empowerment	Effect Size
Economic Contribution	0.083	Small
Environmental Contribution	0.030	Small
Political Contribution	0.025	Small
Social Contribution	0.082	Small

Source: n = 2600, Survey (2021).

Based on the decision criterion, all the independent variables possess a smaller effect size on the variance of the dependent variable (Cohen, 1988; Henseler et al., 2009). Finally, the structural model is assessed for its predictive relevance via blindfolding (q^2). Stone-Geisser Predictive relevance suggests that the Q^2 value larger than 0 ($0 <$) indicates that exogenous constructs have predictive relevance over endogenous construct (Stone, 1974; Geisser, 1974; Hair et al., 2017). The blindfolding of Construct Cross validated Redundancy results in a 0.149 Q^2 value well above the threshold value of 0. It implies that the contribution of cooperatives has significant predictive relevance over women empowerment.

Based on the assessment of structural equation modelling, it is found that the cooperatives are contributing towards the enhancement of women empowerment of rural women to a significant extent. This finding supports the acceptance of hypotheses H1-4, aligning with the theoretical framework of the study. The study's theoretical lens underscores the role of cooperatives as providers of social support, which in turn fosters individuals' efforts towards achieving their desired outcomes (Lim et al., 2020). These findings underscore the importance of cooperatives in empowering rural women and validate the theoretical basis upon which the study was conducted.

The result of the PLS-SEM confirms the 57.9% explanatory power of the predictor variable (Contribution of Cooperatives) in explaining the variance of the dependent variable (Women Empowerment). There, the social (0.279), economic (0.304), political (0.158), and environmental (0.148) contributions of the cooperatives were found statistically significant. However, none of the moderators (i.e., age, education, and experience) finds significant on the tested association. All key findings are consistent with the current understanding of the variables, while some inconsistencies are noted concerning moderating variables.

The social contribution of cooperatives effectively boosts freedom and equality among the members. Particularly for women, who are socially and culturally an unprivileged gender cohort, found beneficial by the

harmonious livelihood of cooperatives among the members, caring and sharing within them, and the spirit of being together. The social contribution of cooperatives was well-acknowledged by the previous studies too (Chaves and Monzón, 2018; Chaves and Savall, 2019; Monzón and Chaves, 2017). Majurin (2012) reported that the social contribution of cooperatives plays well in uplifting gender equality by addressing the issues of gender-based discrimination at home, work, and society at large. Notably, the social contribution found affects the participation in the cultural event through which the social identity is promoted (Git, 1993). Moreover, the social contribution empowers women to rise as agents of change, leading the social transformation (Karunakran, 2004; Warman and Kennedy, 1998). Thus, the present study's finding regarding the social contribution of cooperative society towards women empowerment is rectified.

The role of cooperatives in enhancing women empowerment is clearly demonstrated in terms of the economic contribution of cooperatives. The present study's findings also revealed that the economic contribution of cooperatives is significant in empowering rural women. Somavia (2002) and Henehan (1997) reported the gains of cooperative membership for rural women in managing risk and economic evaluation of needs and wants. Moreover, cooperatives generate economically-critical opportunities for their members (Young, 1992). Cooperatives aid in claiming tax exemptions, while resource mobilization is also found facilitated by them (Levein, 2002). Nippiered (2002) reported the critical role played by the cooperatives toward the improvement of livelihood through effective economic decisions making. Hence, the results of the current study have further ensured.

Women empowerment is largely vested in the political dimension of their role at home and in society. The cooperatives as independent social entities largely contribute to enhancing women's empowerment, particularly in the rural sector where the women literacy ratio is relatively low. Education level is a significant predictor of power and their subsequent engagement in the bargaining process. The poor educational background of rural women often acts as a constraint to form an influential social identity (Majurin, 2012). Through educational and training opportunities, cooperatives contributed much to developing women's drive, imitativeness, and leadership skills. Ufoaroh (2017) noted these contributors as powerful political drivers toward enhancing women empowerment. Additionally, Kimberly and Robert (2004) highlighted the positives of participatory decision-making towards arming rural women. Accordingly, it is confirmed that the political contribution of cooperatives is significant toward the enhancement of rural women empowerment.

The environmental contribution is the next dimension of the contribution of cooperatives towards women empowerment that has received the least attention. Nevertheless, given the risen concern towards a conducive environment with mutual trust and support, the environmental contribution of cooperatives can't be overlooked. The cooperative environment provides women with favourable working conditions. Importantly, they are better than other organizational forms through their democratic governance structure (Ravensburg, 2009). The present study's findings show a significant impact of environmental contribution on cooperatives on women empowerment. Social and environmental accountability of cooperative members is often critical in enhancing the environmental contribution that empowers the women members (Restakis et

al., 2011). Young (1992) also acknowledged the role of cooperative principles and cooperative responsibilities of establishing and maintaining a mutually supportive environment for members to grow. However, researchers noted that there is much more remaining unvisited for which future researchers of the arena may focus.

The demographic factors often alter the direction and strength of many theoretical connections. Similarly, women empowerment was found affected by age, education, and career (Parveen and Leonhauser, 2005; Sen, 1997; Haque et al., 2011; Sheikh et al., 2015; Marc and Philippe, 2020). Participants demonstrated wider variation in terms of their demographic profiles. For instance, the age of participants ranges from 21 to 60+ years. Again, only a very few shares of them have researched the post-secondary level education qualification.

On top of that, 50% of them have been in the membership for five years. Having noted these demographic diversities, the present study aimed at testing the moderating role of age, level of education, and experience (length of the membership) on the main effects. Yet, none of the moderating effects was supported by the results. However, no study has specifically tested the demographic factors' moderating effect linking women empowerment and cooperatives' contribution. Thus, arriving at the firm conclusion on the moderating effect of demographic characteristics on the said relationships need further investigation.

In summarily, it is evidenced that the findings of the present study, to a large extent, are aligned with the previous results of the field, thus, further ensuring the contribution of cooperatives in promoting rural women empowerment of Sri Lanka.

5. Conclusion

Any sustainable approach towards rural women empowerment is deemed to understand the drivers of women empowerment. The role of cooperatives in this regard cannot be overlooked because of their importance in economic development. Thus, in the context of the Sri Lankan rural sector, the present study examined the contribution of these "silent giants" towards enhancing women empowerment. Undoubtedly, cooperatives' initiatives to empower their women members are commendable. It is being demonstrated through a variety of social and economic dimensions. On average, cooperatives provide valuable benefits to society, particularly to women in less-privileged areas. As per the results, rural women enjoy the utmost benefits from cooperatives to enrich their lives. Particularly, their economic, social and political empowerment are directly supported by the cooperative societies' social, economic, political, and environmental contributions. Resultantly, they gained social acceptance and economic independence within the family. Therefore, it is necessary to state that cooperatives play a critical role in empowering women through various aspects affecting their socio-economic wellbeing. It is proven that their social and economic roles in cooperative societies empower them to be agents of social and economic change. Eventually, they become promoters of the economic end of slavery, leadership development, financial and social inclusion, and, ultimately, their

lives' strategic decision-making. As such, the present study will spread the required inputs for developing women participation in the activities of cooperative societies with a particular focus on rural women. The findings highlight the gap in the development of women's hidden potential. The knowledge will help participants understand how the cooperative movement might positively benefit rural women's social, economic, personal, psychological, and financial empowerment. Thus, recommend nurturing the breadth and depth of the cooperative societies' role in their social and economic engagement.

Therein, assisting the local authorities in taking effective measures to improve the functions of women cooperatives and new strategies to diversify the society's existing activities is regarded as mission-critical. To conclude, the members' socioeconomic condition has improved in most of the measures utilized; yet, there are still barriers that prevent women from actively participating in the governing activities of cooperatives. Consequently, policymakers should develop awareness-raising and women's empowerment advocacy actions and policies, focusing on the rural community.

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