



## **Social Capital and Economic Performance of Financial Cooperatives: Evidence from the Amhara Region**

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**Abstract:** Financial cooperatives emerged in the mid-1800s, in response to economic crises and marginalization. The response was an institution of people-centered collective action that was not driven by the state or the market. Scholars have analyzed its contribution to development worldwide, yet its position in markets, its social capital-based characteristics, and the role of social capital in financial cooperatives have been not broadly investigated in Ethiopia. Thus, this study seeks to analyze the various aspects of social capital and examines the effects of social capital on financial cooperatives' economic performance. Social capital is indicated in terms of relational, cognitive, and structural dimensions. Analysis was made based on both the quantitative data and qualitative information a combination of primary and secondary data. Primary data was collected in a survey of randomly selected 348 members of all 27 cooperatives savings and credit unions in the Amhara region using structured questionnaires. Key informant interviews and focus group discussions were also carried out. The results revealed that higher levels of structural, relational, and cognitive social capital significantly and positively affect members' participation in savings. Moreover, structural and relational dimensions of social



capital significantly and positively influence economic performance. Whereas the deficiency of cognitive social capital; that is, a lack of understanding of shared mission and goal between members significantly disturbs the economic performance of cooperative saving and credit unions. We can safely conclude that social capital generated in members and collective actions, based on strong trust, cooperation, and common mission and goal understanding can lead cooperatives saving and credit unions to success. To grow and expand the economic performance of financial cooperatives, the cooperative's policy must be focused and geared to the improvement of the social capital dimensions to enhance its service delivery and contribute more to the economic development of the region and the country at large.

**Keywords:** Social capital, financial cooperatives (Savings and credit cooperatives (SACCOs)), member participation, economic performance

## **1. Introduction**

### **1.1. Background**

Financial cooperatives were formed in response to economic crises and marginalization as a people-centered institution that was not driven by the state or the market but emerged from the collective action of the people. It began in the mid-1800s and has continued to grow ever since. There is a large body of literature that examines its contribution to development, market position, and social capital-based characteristics.

Social capital<sup>1</sup> has become an intriguing concept for both policymakers and scholars because it includes the role of economic actors who interact and organize themselves to produce a better

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<sup>1</sup> Social capital is investment in social relations with expected returns in the marketplace (Lin, 2001), social capital can be agreed as “networks, norms, and trust” facilitating cooperation and coordination (Putnam, 1993), or It is the benefits that individuals derive by their membership virtue in a social structure (Bourdieu, 1985, Coleman 1988, and Portes, 1998, 2000).



economic outcome. For example, the World Bank (1998), the OECD (2001), and the European Union (Euro-barometer, 2005) have all thought about social capital and how to use it as a policy tool to improve economic growth and development. It is, however, critical to understand how this works and the mechanisms that promote economic growth and development.

In a variety of contexts, classical and neoclassical economic theories have been criticized. First, they failed to thoroughly explain the factors that influence economic growth and development. According to the literature, conventional factors of production, capital<sup>2</sup>, and labor, i.e. physical capital, human capital, and technology, explain only a portion of the development processes. However, other factors of production, such as social and cultural factors, play significant roles in economic performance, and it is necessary to account for those socio-cultural factors when explaining development (Christoforou, 2005). Second, even though many studies on social capital have been conducted, Stone and Hughes (2002) contend that many current attempts to empirically measure social capital have failed to recognize and account for its multidimensional nature.

As a result, a large body of economic literature supports the premise that, among many other important factors, a country's performance, long-run economic growth, and societal welfare are related to the development of social capital. A growing body of research acknowledges multidimensional social factors such as culture, social regulations, and norms, which play a critical role in promoting economic growth and development (Dinda 2014).

### **1.1. Statement of the problem**

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<sup>2</sup> Capital is a sum of money that is invested in a business enterprise. It is stock of abilities to produce benefits in the form of revenues, incomes or profits.



Ethiopia has experienced high economic growth since 2003/04 as a result of a public investment-led model that has contributed to poverty reduction in both urban and rural areas (BTI, 2020). For example, the percentage of the population living below the national poverty line fell from 30% in 2011 to 24% in 2016. Despite this progress, the report revealed that Ethiopia remains one of the world's poorest and most unequal countries. According to the UNDP (2020) Human Development Index (HDI), Ethiopia is ranked 173 (out of 189 states) for 2019, and an Ethiopian industry worker's annual salary averages \$900, compared to \$2,118 in Kenya and \$1,776 in Tanzania. As a result, several textile companies have relocated production from low-cost Asian countries to Ethiopia. Furthermore, the Legatum Institute's (2020) Prosperity Index ranks Ethiopia's social capital network 163 (out of 189 states) for 2020, indicating that one-fourth of the population still lives in absolute poverty.

Afrobarometer (2021) economic condition assessments of Ethiopian residents by geographical location revealed that Amhara regional state residents (57 percent) are in the third-worst economic condition, trailing only Tigray (72 percent) and Addis Abeba residents (71 percent). As a result, residents of the region are likely to be irritated by rising inflation. According to Amhara region Planning and Development Commission statistics (2019), all financial institutions collected 41,844,491,928 ETB savings in 2014/15, while the disbursed amount of loans in the same year was 23,987,358,912 ETB; in 2015/2016, the collected savings was 52,848,576,456 ETB, while the loan injected was 25,789,250,014 ETB. This demonstrates that there is a misalignment between saving and investment in the region. On the other hand, at the national level in the same years, domestic saving was ETB 286,849,469,400 (22.1 percent of GDP) and capital formation was ETB 511,618,000,000 in 2014/15; and in 2015/16, domestic saving was ETB 351,253,840,000 (22.4 percent of GDP) and capital formation was ETB



585,665,000,000 ETB (NBE, 2020). National capital formation far outpaced domestic saving. However, in the Amhara region, the opposite is true, indicating that the region is a net saver and must work to balance the mismatch. According to Stiglitz (2012), widely unequal societies do not function efficiently, and their economies are neither stable nor sustainable over time.

As a result, this study focused primarily on assessing social capital and its impact on economic development, which were not previously addressed in Amhara or Ethiopia in general. Recognizing the importance of social capital in economic development performance, this study attempts to fill a gap in the literature, contribute to current knowledge about the issue under study, and answer the basic research questions by using three variables in the dimensions of social capital to investigate the role of social capital in economic performance in the Amhara national regional state. We used social capital in cooperatives for this study because evidence from multiple sources indicates that cooperatives contribute to the nation's socioeconomic development.

Cooperatives are the social pathway, according to ILO and ICA (2004): Cooperatives improve trust and solidarity, stability, and lead to social well-being. Through development programs, cooperative members learn the relationship between serving their own needs and the viability of organizations. They build social capital in their communities and learn how to provide critical social services in their communities. They are also the Economic Pathway: Their business model has helped millions of low-income citizens in developing countries improve their incomes. Furthermore, they are the institutions of choice for creating economic opportunity in underserved rural and remote areas where the majority of the poor live; financial services are less profitable for other enterprises and unappealing to investors due to scattered and high transaction costs with low levels of production and long distances to market.



According to the International Cooperative Alliance (ICA) (2019), cooperatives benefit nearly one billion people as members, employees, or both. According to the report, cooperatives provide employment opportunities for nearly 280 million people worldwide, and cooperative enterprises protect the livelihoods of nearly half of the world's population.

More importantly, cooperatives have successfully bridged ethnic, religious, and political divides, achieving reconciliation along the burden lines of various social groups. To that end, the following two research questions are addressed in this study. Does social capital influence members' savings participation in their financial cooperatives' collective activities? What effect does social capital have on financial cooperatives' economic performance?

## **1.2. Objective**

The overall goal of the research is to investigate the effects of social capital on the economic performance of financial cooperatives in the Amhara region. More specifically, this study aims to: first, investigate the effect of social capital on members' economic decision-making, and then assess the effect of social capital on the economic performance of financial cooperatives in the Amhara region.

## **2. Theoretical and Empirical Literature Reviews**

### **2.1 Theoretical Literature Reviews**

#### **Theories of Social Capital**

Society consists of various interrelated sub-structures liable for economic arrangements, governance, political alliances, and all the educational institutions required for the technocratic and technological success of society. The structural base is made up of a society's economic and social life and the norms that are used to enable these features (Marx, 1976). The Structural base



is like the framework of a human social system. The Marxist theory of history explains the existence of human life depends upon economic activity and is determined by the combination of base or substructure and superstructure (Gush, 2017).

According to Gush, (2017), superstructure specifies not only institutional and cultural relations but also the ways that people interconnect in terms of their power-sharing and social rituals. The base-superstructure notion is mainly concerned with the mode of production, forces of production, production relations, and social consciousness. The force of production is characterized as a phenomenon that affects the substructure or economic base and the nature of the base or substructure determines the superstructure. On the other hand, traditionally theoretical and empirical economic literature has been dedicated more to labor and physical capital as key factors of economic growth (Barro and Sala-i-Martin 1995).

However, as Christoforou (2005) explained and criticized that literature discusses only conventional factors of production, i.e. physical capital, human capital, and technology enlighten only part of the development processes yet, there are other factors of production i.e. social and cultural factors that play noticeable roles in economic performance and there is a need to account for those socio-cultural factors in explaining development. The classical theory of Marx, from the analysis of how capital emerges from social relations between the laborers and capitalists in the processes of commodity production and consumption, Marx saw capital as part of the surplus value that generates further profit (Taye 2003). The communitarian view argued that the idea of social capital was primarily perceived as a cultural and social situation exercised at the individual level (Lin 2000). The social capital theory was first explained by Bourdieu (1986) as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition”. Bourdieu



(1986) and Coleman (1988) also, took social capital as an individual's investment made in social relations to derive some kind of benefit. But as Ostrom (1994) explained the creation of social capital obliges a sustainable investment of effort and time. For Bourdieu, this benefit would be the reproduction and maintenance of domination by elites.

On the other hand, Coleman (1988) theorized that the summation of individuals' gains could transform into solutions to the problems of social groups. This approach is considered the theoretical base for the uses of social capital in the economic development concept that influenced Putnam's research on civic life in two Italian regions (Portes and Landolt 2000). In his work, Putnam argues that development and democracy are significantly influenced by traditions and cultures of civic participation implying the role of social capital in economic development.

From a theoretical view, there are so many reasons to suspect the influence of social capital on economic development. The first commonly recognized expression of the social capital theory belongs to the French sociologist Pierre Bourdieu (1986), who singled out social capital along with cultural and symbolic ones. According to him, social capital characterizes resources gained from more or less reciprocal and institutionalized ties motivated by social structure and socio-economic conditions.

Social capital could be explained into two basic approaches: a private good (Bourdieu 1986, Coleman 1988) and a collective or public good (Putnam 2000). For Putnam, social capital is formed as a by-product of other pre-existing social relations and social actions, which were developed for reasons other than its economic value to operate and participants based on values of relationship and reciprocity (Christoforou, 2017).



The other dimension is the consideration of social capital as a private good. In this sense for Bourdieu, social capital is a private investment in social networks that brings the owner expected benefits such as wealth, and “symbolic capital” represents symbols of social position or strata. However, for Coleman as for the earlier sociologists, social capital is, first of all, an individual good that could be however traded through social networks for the advance of human capital or to get things done, Hence, for both Bourdieu and Coleman dense networks are seen as the method by which collective capital can be maintained and reproduction of the group member can be succeeded. Whereas, for Lin, social capital refers to “investment in social relations with expected returns in the marketplace” (Lin 2001:19).

The second approach is the perspective of taking social capital as a collective or public good. In this approach, Fukuyama (1995, 2001) argues that social capital is a “set of informal rules and ethical values common for social groups that enable them to act effectively”. Putnam (2000), stated that social capital does not belong to anybody but is a public good representing the set of social norms and civic attitudes supporting common actions and trust both interpersonal and in public institutions. Moreover, Huber (2008) defines social capital as “resources embedded in social networks which can be potentially accessed or are used by individuals for action”.

Besides, social capital is a public or collective good demarcated by OECD and World Bank denoting “networks together with shared norms, values, and understanding that facilitate cooperation within or among groups” (OECD, 2001). According to Grootaert and van Bestelaer (2002a), social capital refers to “institutions, relationships, attitudes, and values that govern interactions among people and contribute to economic and social development.”



Social capital has two aspects: bonding and bridging. Putnam (2000) distinguishes between bonding and bridging social capital and how each type links people to those who are different from or like themselves. Bonding social capital is inherently inward-looking by reinforcing exclusive identities and homogeneous group characteristics, such as those associated with homogeneous resources. In contrast, bridging social capital is inherently outward-looking, as it enables connections to other people or groups who are different from each other in some way.

Thus, bridging social capital fosters heterogeneous connections and diversity that allow access to different people and provide access to new ideas, different resources, and information. With bonding ties, people view all the members within the group as similar, possessing common values and norms, whereas with bridging ties, people have horizontal ties with dissimilar people or groups (Mass, et al., 2014). That is why Putnam (2000), called the most important outcome associated with high stocks of social capital that it allows citizens to resolve collective problems more easily...via increased cooperation, “greases” the wheels that allow communities to advance smoothly via increased levels of trust and solidarity; widen the collective awareness of the many ways in which our fates are linked, and its functions as conduits for the flow of information that facilitates the success of individual and collective goals.

### **Cooperatives Social Capital and Economic Development**

Economic development in top-down financing models is often privileged (Christen and Drake 2002) over empowering and building the long-term capacity of communities through a slower, often more sustainable model of cooperative development (Robb et al. 2013). Cooperative societies affect the course of socioeconomic development, its impact may be a direct micro impact on its members' economy, that is, the first thing, it develops individual members' savings culture. But, it also has an indirect micro impact on the organizations of the cooperative



environment through job creation, employment of local resources, improved innovation, growth and better sharing of revenue, and so forth to the communities in which they operate (Babajide, 2016).

Cooperatives are social enterprises in which trust and cooperation are basic pillars. In other words, social capital is understood as one of the main characteristics that foster these organizations, in comparison with capitalist enterprises, since social networks are supported by norms of reciprocity and trust form the fundamental basis of cooperatives (Hogeland, 2006).

Hasan, Hoi, Wu, and Zhang (2016) write that corporations operating in regions with greater levels of social capital have lower transaction costs and moderately better borrowing conditions. Moreover, Rudziewicz (2016) points out that a lack of trust in the corporation or between corporations destroys social responsibility. The impact of distrust leads to poor product and service quality, diminishing customer and employee satisfaction, and company profits, as well as limiting its development prospects.

Social capital significantly reduces transaction costs and improves livelihoods. Rural area entrepreneurs highly rely upon informal credit and other funding sources than formal lending provisions. It is for this reason that social capital is recognized as one of the important underlying reasons for development (Priyanath & Lakshika, 2020). According to Munyawarara and Govender (2020), cooperatives' social capital is efficient, and fund flows are more effective in informal sectors than in formal ones. Hence, the expansions of smallholder farming businesses and entrepreneurship are facilitated through social capital.

## **2.2 Empirical Literature Reviews**

### **Social Capital and Financial Cooperatives**



Setting up cooperatives requires social cohesion; however, they would not be capable of generating sufficient resources to continue operating, if members do not respect their membership requirements, duties, and responsibilities, and full participation in its activities. Previous research has shown a clear relationship between social capital and cooperative organizations; for instance, in the Italian regions' classic study (Putnam and Leonardi, 1993). Besides, while the homogenous composition and smaller size of rural cooperatives may enrich enforcement and peer-monitoring capacities, heterogeneous composition and larger size may provide stronger capabilities of finance and economic opportunities among members (Armendariz de Aghion and Morduch 2010). Lizardo (2013) also proposed that participation in cultural events was positively related to one's network size which means the larger the size of the network, the more likely the experience information communication, opportunities, and experiences of cultural activities. But, the effects of the different expressions of trust on cooperatives' performance depend on structural contexts like the complexity of services provided, members' geographic dispersion, and facilities (Hansen et al. 2002).

Conversely, the exact nature of the correlation remains unclear. On the one hand, it is clear from past research that social capital sustains cooperatives; on the other hand, it is unclear whether the reverse is also true. When the membership base increases and becomes more heterogeneous, organizational goals and activities grow and become more complex, then sustaining social capital as an organizational resource may become gradually difficult (Valentinov, 2004). Markelova et al., (2009) added that when the size and/or heterogeneity of a group increase, maintaining and growing social capital becomes increasingly difficult.

Liang et al, (2015) researched social capital, member participation, and cooperative performance: in China's Zhejiang. the study followed to develop a framework for clarifying and describing



various features of social capital and studies the social capital effects on members' participation in collective actions on farmer cooperatives' economic performance using three dimensions of social capital as an indicator. A statistical model was applied to a database consisting of 147 farmer cooperatives and found that there is a positive relationship between certain dimensions of social capital and members' participation in general meetings and pieces of training. Moreover, each social capital dimension has a positive and significant impact on the cooperatives' economic performance. Kłoczko-Gajewska, (2020) explained that villages with tough organized social capital are more likely to succeed. Moreover, collective alignment is one of the most essential preconditions of the beginning and development of cooperatives. An understanding of the goals and mission of financial cooperatives motivates members to act mutually and achieve the goals successfully (Wang, 2010).

Nilsson et al. (2012) suggested that large or complex agricultural cooperatives are failing due to a loss of social capital. From these statements two theoretical lines of reasoning are open. First, the structure of a cooperative is an institutional safeguard for social capital maintenance. Second, the causal correlation extends in both directions: cooperatives create social capital. The other line of reasoning is that the relationship is one-sided or at least uneven.

Agahi et al. (2012) explored the role played by social capital management in the development and production of cooperative societies' success in the Kermanshah province of Iran. It used descriptive-correlation methodology with production cooperative society's members out of season products with a randomly selected sample and concluded that social capital was a powerful thought for understanding the emergence, growth, and functioning of a linkages network. The study considered the good management consequence but did not study the social



capital management impact on savings mobilization in cooperative societies and how social capital added to good cooperative management.

Nilsson et al's (2012) research saw whether large and complex agricultural cooperatives were losing their social capital. The research analyzed a social paradigm shift in agricultural cooperative societies and how it influenced the vanishing of social capital in large and complex cooperative societies. The study found that the problems in cooperative societies were due to diminishing trust in members of the cooperative societies among its members. Moreover, the decision-makers of cooperative societies had no instruments for estimating how much social capital was lost when they pursued strategies of vertical and horizontal integration. The findings tell us that the theory of social capital was a suitable tool for explaining the demise of various agricultural cooperative societies and suggested that large and complex cooperative societies were gradually losing social capital; that is, network resources that were invisible but had an economic impact. The loss of social capital was reflected in members' decreasing trust, less mutual benefits involvement, and less collaboration with their cooperative societies' leaders and each other. The strategies toward far-reaching vertical and horizontal integration created a link between members and their cooperative societies.

As Pisani and Micheletti (2020) noted, concepts of social capital do not jeopardize the role of the market or the state institutions that need to work "from above" to help local actors network, coordinate or collaborate "from below"; to realize common goals based on the new governance approach. Hence, governments should encourage participation in local organizations by creating a favorable environment in which organizations can communicate and operate effectively.



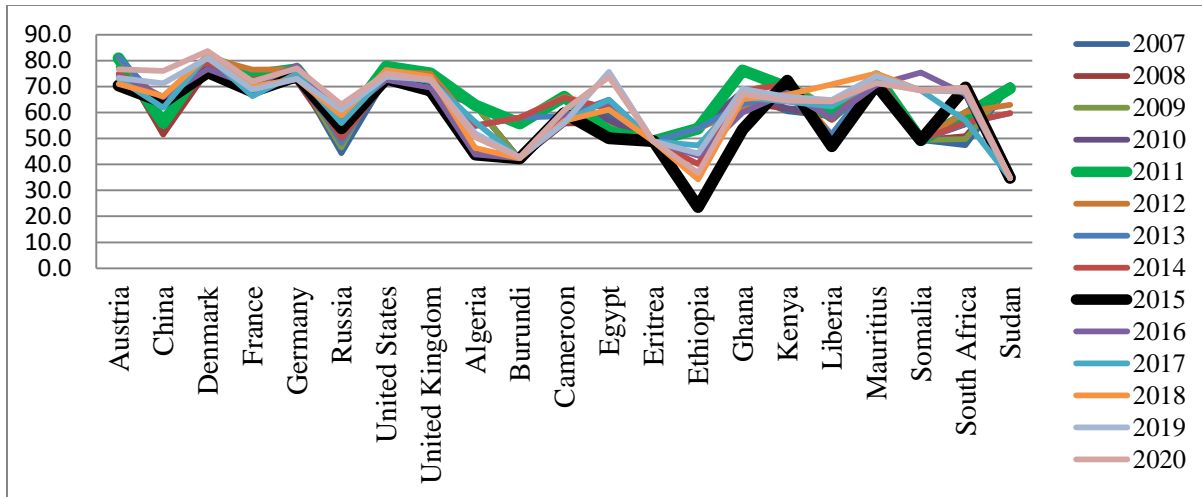
In the quest for measuring the impact of social capital, most studies focus on the relationship between social capital and cooperative members' participation using social capital as the independent and the cooperative members' participation as the dependent variable. We follow this method in the case of the Amhara region, Ethiopia.

## **2.3 Social Capital Status and Cooperatives Development Facts in Ethiopia and Amhara**

### **Social Capital Status of Ethiopia**

The secondary data collected from Legatum Institute (Legatum Prosperity Index) about Ethiopia's social capital status as compared to other nations shows that Ethiopia's scoring in the social capital criterion is shown in the figure-1 below. An inconsistent course is observed in this criterion. The lowest score (23.6) was in 2015, whereas the highest score (53.8) was in 2013. As it is understood from the graph, in some years in which relatively high social network has been achieved, there has been progress in the scoring, while in some years particularly from 2013 onwards there has been a decline in the scoring. As compared to the listed developed and developing countries Ethiopia register the lowest social capital score in 2015 and the highest score registered by Denmark in the same year.

### **Figure 1: Social Capital Score by Country and Year**



Source: Authors' presentation and calculation based on Legatum Institute 2020 dataset

### **Some facts about the Cooperatives movement in Ethiopia**

Modern types of cooperative development in Ethiopia started between 1950 and 1974. The main societies are classified as producers and service cooperatives. Since its inception, many reforms/improvements have been carried out on cooperative laws and regulations as their importance grew and their activities became more complex. To facilitate the establishment of cooperatives, the Cooperative Decree 44/1961 and Proclamation 241/1966 were issued. It is with the endorsement of the Decree that cooperatives gained their formal legal status. However, even though cooperatives acquired formal legal status with this decree, it was not until 1978, with the adoption of the Cooperative Proclamation No 138/1978, that its status was aligned in line with their objectives. Aided by the Cooperative Societies Proclamation No. 147/1998, the cooperative movement started to see changes for better opportunities as its roles in economic development were objectively understood. Currently, cooperates operate based on Cooperative Proclamation No.985/2016.



Cooperatives in Ethiopia play an active role in the fields of finance, input and output marketing, consumer goods, agro-processing, mechanization, and many other social and economic activities. Despite the ups and downs experienced over time, the cooperative movement has registered significant growth over the past decade in terms of membership, savings, and share. However, membership is still much smaller when compared with its potential. According to Federal Cooperative Agency (FCA) official report, cited in International Cooperatives Alliance-Africa (2021), there are more than 92,755 cooperatives in Ethiopia with 21,043,370 members of which 6,743,429 are female. There are 21,328 primary SACCOS with 5,384,559 members of which 3,122,454 are females; its savings and shares of 18.54 billion ETB.

### **Facts about Cooperatives development in the Amhara region**

According to the 2020 regional cooperative promotion agency's annual basic data document, at the end of 2020, there are 21,219 primary cooperatives including housing cooperatives of which 3,505 are financial cooperatives. These cooperatives have 4,399,801 members of which 1,206,285 were women; their capital is ETB 6,327,838,263, they have mobilized ETB 1,980,744,225 in savings; and they disbursed ETB 3,927,100,923 in loans. The loans disbursed are mostly short-term loans to the members. On the other hand, there are 70 'Cooperatives Unions' of which 27 are cooperatives saving and credit unions which have 5,372 members, ETB 1,229,555,510 capital, and disbursed ETB 5,309,900,286 to their members. Moreover, a Cooperatives saving and Credit Federation was established with 20 million paid (share) capital to enhance the outreach and the quality of cooperatives' financial services in Amhara.

Cooperatives of saving and credit unions have the capital to the tune of ETB 213,165,825; have mobilized ETB 1,548,197,292 in savings, and disbursed ETB 2,895,757,829 in (largely) short-term agricultural loans. According to the Amhara region cooperatives promotion Proclamation

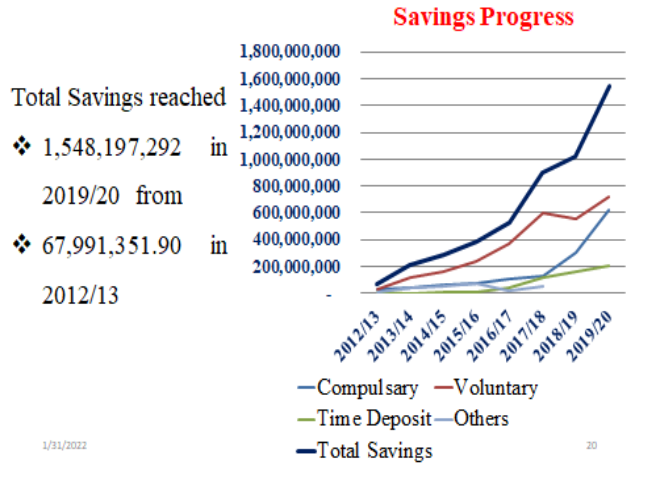
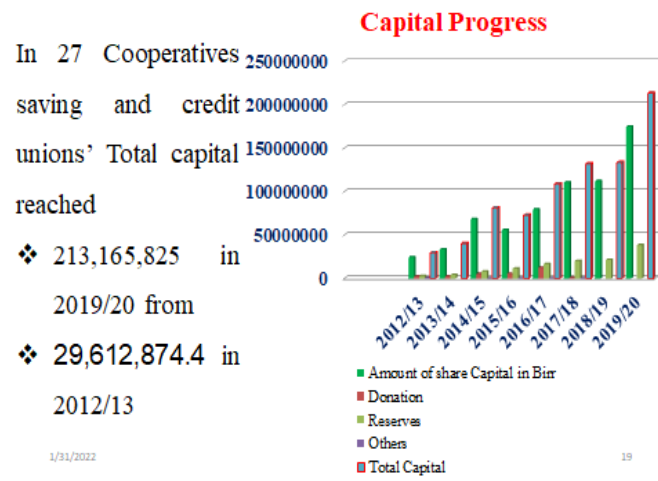


220/2014, the membership requirement of the Amhara Cooperatives saving and credit unions and above is different from the rest of the world. All kinds of the primary cooperative that satisfy the membership requirement, can become a member by considering the role or functions of money. According to Mankiw (2010), money has three roles, it stores a value which is money is a way to transfer purchasing power from the present to a future period, it is a unit of account in which money provides the terms that prices are quoted, and debts are recorded, and money used as a medium of exchange that we use to buy goods and services. It is the most liquid asset in the economy and every institution needs to use it. The federal cooperative proclamation of Ethiopia No.985/2016 permitted a membership like that of what the Amhara region has experienced. This experience is supported by some scholars like Armendariz de Aghion and Morduch (2010), homogenous composition and smaller size of rural cooperatives may enrich enforcement and peer-monitoring capacities, but the heterogeneous composition and larger size may provide stronger capabilities of finance and economic opportunities between members. The Amhara region cooperatives promotion Agency data from the year 2012/13 to 2019/20 confirms the importance of heterogeneous members' composition in Cooperatives saving and credit unions too.

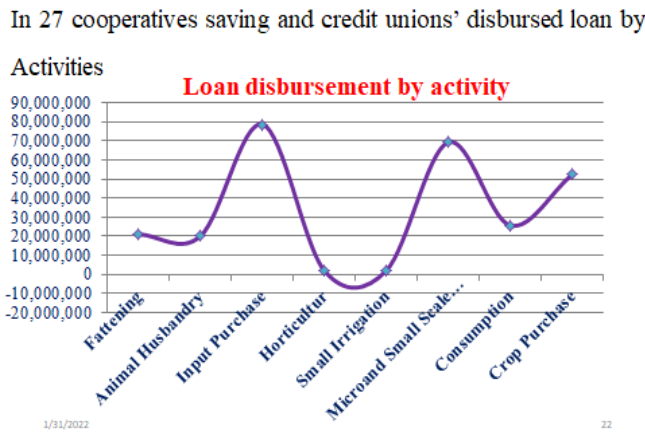
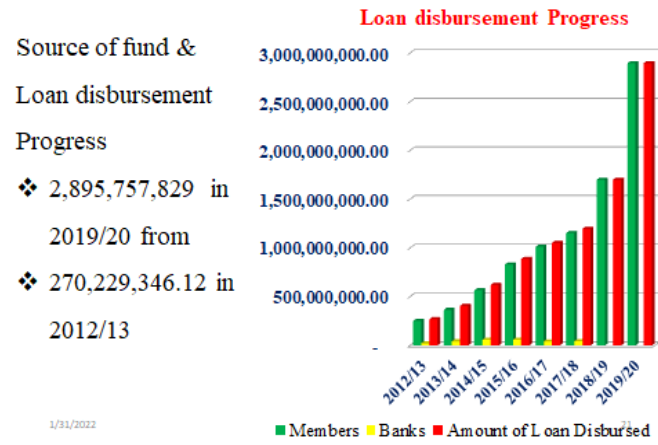
**Figure 2: Cooperatives saving and credit unions progress by Year**



**Cooperatives saving and credit unions' Progress** **Cont.**



**Cont.** **Cont.**



Source: Amhara Cooperative Promotion Agency, 2020

Financial cooperatives in the Amhara region are much higher than banks and microfinance institutions in number. Most of the cooperatives' clientele are those that a majority of banks and microfinance would not be willing to serve due to geographical location and collateral issues. The sector provides financial services at a lower cost than microfinance institutions, due to the self-help ethos of the cooperative spirit, which supports sustainable businesses, and democratic management. These characteristics are good not only for the cooperatives but also spill over to strengthen democracy and economic activity in the local community. The sector covers both



rural and urban areas: the primary financial cooperatives are established at Kebele<sup>3</sup>, while the cooperatives saving and credit unions are formed at zonal administrative levels. The efforts of the financial cooperative promoters at all levels have achieved success and a large number of primary financial cooperatives have been formed.

### **3. Materials and Methods**

#### **3.1. Research Approach, Sampling, and Data**

To examine the impact of social capital on member participation and its economic performance, we used a mixed research approach. The data used have both primary and secondary components. The primary was obtained by using questionnaires, interviews, and focus group discussions. We chose cooperatives saving and credit unions<sup>4</sup> hereafter we call them unions in the Amhara region because; they are available in all zone administrations except the Oromo special zone in the region, all kinds of primary cooperatives<sup>5</sup> have the right to become a member of the unions, and have a large number of the members and members of the members.

We employed statistical analysis on randomly selected cooperative chairpersons/respondents out of 3,719 cooperatives which are members of all the 27 unions registered in the Amhara region of Ethiopia. Out of 3,719 member cooperatives in the unions, 21% are primary financial cooperatives while the rest are agricultural and non-agricultural primary cooperatives with 2,318,581 individual members of which 22.6% are females as of the end of 2020. We chose

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<sup>3</sup> Kebele is the smallest administrative unit in Amhara National Regional State

<sup>4</sup> Union means a secondary level cooperative society established by primary cooperative societies having similar objective with a minimum number of members to produce, provide service or to engage in both activities that are beyond the capacity of primary cooperative societies (Federal Democratic Republic of Ethiopia, Cooperatives proclamation 985/2016)

<sup>5</sup> Primary cooperatives means a cooperative society established by individuals having similar interest and objective with a minimum number of members prescribed in this Proclamation to produce, provide service or to engage in both activities (Federal Democratic Republic of Ethiopia, Cooperatives proclamation 985/2016)



these unions to control the general development status and performance of financial cooperatives with a limited differential.

The objective of the sampling procedure we used is, to select a set of elements or study units from a population. Random sampling enhances the probability of accomplishing this objective and also allows for the objective assessment of the reliability of the sample. With this connection, the study applied a random sampling technique to select the union's member primary cooperatives, and also purposively selected the chairperson as respondents across the selected member primary cooperatives in the research area. Stratified and proportional sampling techniques were used to select participants from each group in the research area. The composition of research participants were unions and their member chairpersons, Board/Committee members, Staff and Government, and Community leaders.

In determining the sample size to fill the questionnaire, Kothari's (2004) formula is employed as

$$n = \frac{Z^2 * p * q * N}{(N-1)(e)^2 + Z^2 * p * q}, \text{ Where } n = \text{the sample size; } N = \text{the total number of households; } p = 0.5 \text{ the}$$

sample proportion reliability and  $q = 1 - p$ ;  $e = 5\%$  the margin of error/acceptable error considered;  $Z = 1.96$  is the critical value for a 95% confidence interval.

$$n = \frac{1.96^2 * 0.5 * 0.5 * 3719}{(3719-1)(0.05)^2 + 1.96^2 * 0.5 * 0.5} = 348$$

We conducted face-to-face interviews with the chairperson of each selected union member's primary cooperative. Data regarding the chairperson's personal information, measures of the social capital dimensions which are structural, relational, and cognitive, members' collective actions, and cooperative-level information, such as membership size, member's participation, physical and financial capital, savings, and other data were collected.



Member's saving participation: Members participate in various activities in financial cooperatives in the Amhara region. Member participation can be categorized primarily as saving and share participation, transaction participation, and management participation (Shao, 2014). We used "members saving participation decision in respective cooperatives saving and credit unions" as a dummy for the measurements of member participation. Assuming members are informed at the time of membership, all the training, and meetings.

Economic Performance: Social capital is formed at an organizational level rather than the individual member level. Hence, the savings<sup>6</sup> of the member primary cooperatives deposited in cooperatives saving and credit unions per year of membership are used to measure economic performance.

Control Variables: the capital shares, chairperson's gender, education level, age, working experience, and health status affect a cooperative's performance (Guo and Lou 2009). Social capital is measured in indices adopted by Okunmadewa et al., (2005) and Yusuf, (2008). The social capital (SC) variables used include a structural index, a relational index, and a cognitive index.

Structural dimension is measured using the communication of the member primary cooperatives chairperson with managements of cooperatives saving and credit unions, managers of other cooperatives, government officials, and other institutions, due to the dominant position of chairpersons in the operation and management of cooperatives (Liang and Hendrikse, 2013).

The cognitive dimension of social capital refers to a shared vision and mission that accelerates the understanding of collective actions and ways of acting in an organization. the most important

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<sup>6</sup> Saving is the accumulation of money compulsorily or voluntarily by the members' primary cooperatives societies in cooperatives saving and credit unions to secure or to gain interest payment or both.



outcome associated with high stocks of social capital is that it allows citizens to resolve collective problems more easily...via increased cooperation, it “Greases” the wheels that allow communities to advance smoothly via increased levels of trust and solidarity, widens the collective awareness of the many ways in which our fates linked, and its function as conduits for the flow of information that facilitates the success of individual and collective goals (Putnam, 2000).

Relational: the mutual trust between members and managers and the trust among members represents the social capital dimension of the relationship.

A 5-point Likert scale ranging from ‘1 least to 5 highest levels; of the structural, cognitive, and relational dimensions was used to evaluate the answer. An exploratory factor analysis of the different variables yields a one-factor measure of the three different dimensions of social capital in each sample.

**3.2. Model and Data Analysis**

The models used to analyze the two research questions are shown as follows: for members saving participation decision, the variable is a dummy variable and used the probit model in the form:

$$F(X' \beta) = \Phi(X' \beta) = \int_{-\infty}^{X' \beta} \Phi(Z) dz \dots\dots\dots (1)$$

$$S^* = \beta + X\alpha + \epsilon_i, \quad \epsilon \sim N(0, 1), \text{ If } S^* > 0, S = 1, \text{ If } S^* \leq 0, S = 0 \dots\dots\dots (2)$$

And the coefficients of the variables in the probit model are not straightforward in interpretation, we calculated and presented the marginal effects of the variables to facilitate the explanation in the following form.



$$\text{Marginal Effect (mfx), mfx} = \frac{\partial \text{Pr}(S^* = 1|x)}{\partial X} \dots\dots\dots (3)$$

$$\text{MSP} = \alpha_0 + \alpha_1 \text{ structural} + \alpha_2 \text{ cognitive} + \alpha_3 \text{ relational} + \alpha_4 \text{ Age} + \alpha_5 \text{ Sex} + \alpha_6 \text{ Education(Educ)} + \alpha_7 \text{ Experience(exp)} + \alpha_8 \text{ Chairperson Health Status(CHS)} + \alpha_9 \text{ Physical Capital(PCa)} + \alpha_{10} \text{ Labor} + \alpha_{11} \text{ Source of Income(SInc)} + \alpha_{12} \text{ Training Accessibility(TrCoop)} \dots\dots\dots (4)$$

And for the cooperative economic performance, the variable is continuous and we used the multiple linear regression model in the form

$$\text{logEPS} = \beta_0 + \beta_1 \text{ structural} + \beta_2 \text{ cognitive} + \beta_3 \text{ relational} + \beta_4 \text{ Age} + \beta_5 \text{ Sex} + \beta_6 \text{ Education(Educ)} + \beta_7 \text{ Experience(exp)} + \beta_8 \text{ Chairperson Health Status(CHS)} + \beta_9 \text{ Physical Capital(PCa)} + \beta_{10} \text{ Labor} + \beta_{11} \text{ Source of Income(SInc)} + \beta_{12} \text{ Training Accessibility(TrCoop)} \dots\dots\dots (5)$$

Where social capital is denoted using the three dimensions of social capital as structural, cognitive, and relational respectively; member saving participation is denoted as MSP; the financial cooperatives' economic performance in terms of the amount of saving is represented by EPS;  $\alpha_i$  and  $\beta_i$  denote the parameters.

We used robust standard errors in our estimation to control for heteroscedasticity and calculate the correlation coefficients and variance inflation factor (VIF) to assure that there is no serious multicollinearity. The overall results based on the data and models used in this research are robust.

#### **4. Result and Discussions**

##### **4.1. Social Capital and Financial Cooperatives' performance**

The effects of social capital on members' participation and economic performance were discussed by using descriptive and inferential statistics. The analysis looked at the dimension of social capital, accumulation of reserves, age, sex, education, experience, and health status of



members' primary cooperatives chairperson; physical and financial capital, labor employed, source of income, and training involvement in their financial cooperative union. The study results are presented as follows.

#### **4.1.1. The descriptive statistics result**

Many cooperatives in Amhara were initiated as part of the rural finance movement by the government and NGOs. This facilitated the formation of a large number of primary cooperatives in rural and urban areas. However, we still find primary cooperatives with few members in the sample cooperatives; for instance, the primary financial cooperatives' average membership size is 203, and other non-financial cooperatives' 982.

Ninety-seven percent of the primary cooperatives and all cooperatives saving and credit unions have an office, of which 37% of primary cooperatives and 40.7% of unions have working in their owned offices and the rest of the primary cooperatives are shared it with the multipurpose cooperatives and government offices, whereas the unions are rent it.

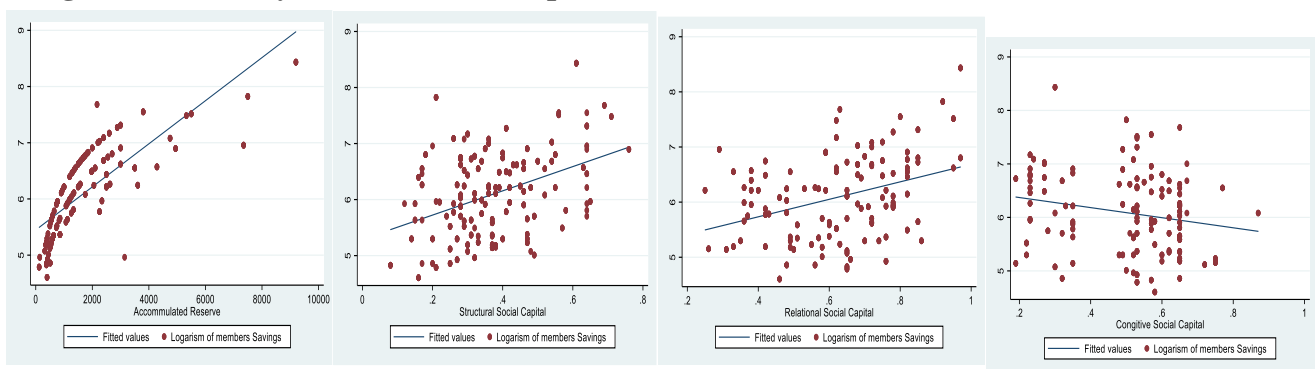
The demographic characteristics result indicates that the chairperson of primary cooperatives is dominated by men (91.67%). This result agrees with Christoforou (2005) that households of women headed tend to have significantly lower levels of overall civic participation and membership in social networks than male-headed ones. The age range of chairpersons is between 19 to 77 years with a mean age of 38.95 years. This is an indication that the chairpersons involved in cooperative social networks in the study region are mostly within the active productive workforce. The educational status of chairpersons indicated that 67% have attended formal education and more than 33% have a college diploma and above this helps the cooperative to strengthen the relationship between member primary cooperatives and the

financial cooperative union in Amhara regions. The detailed descriptive summary is presented in Table 1 in the Annex.

The correlation matrix in Table 2 in the Annex illustrates that the amount of saving in cooperatives in unions by members' primary cooperatives is positively correlated with accumulated reserve availability, sex, age, education, relational social capital, structural social capital, physical capital, source of income, financial capital and training participation, whereas the other variables negatively correlated. The correlation matrix shows that there is little multicollinearity among independent variables since entire correlations are under 0.80 (Gujarati, 2003). The correction coefficient was positive and negative pointing to the influence of each variable.

The two-way scatter relationship between saving, accumulated reserve, and social capital dimensions' in Figure 3 exhibited that the is a positive relationship between the amount of saving deposit, reserve, structural social capital, and relational network, whereas the relationship between the amount of saving and cognitive social capital is negatives.

**Figure 3: Two-way scatter relationship**



Source: Research results, 2021



#### **4.1.2. The Econometric result**

The impact of social capital on cooperative saving and credit unions' economic performance in the Amhara region was analyzed using the probit and linear regression models and presented as follows.

##### **4.1.2.1. Social Capital and Members' saving participation decisions**

The probit regression model result reveals that the overall model predicted 61.51 percent of the sample correctly and posted a log-likelihood value of -92.622461 and goodness of fit chi-square value of 61.51 which is statistically significant at a 1% level. In the model, eight out of fourteen explanatory variables were statistically significant as shown in table 3 in the Annex.

For better interpretation and understanding, we used the marginal effect of the multiple probit regressions estimated model to make predictions. So, we can interpret the model on a scale that makes sense. The marginal effect prediction results in Table 3 in the annex indicated that a 1,000 ETB increase in accumulated reserve in the member primary cooperatives, on average, corresponds to a 0.6 percentage points improvement in the probability of members saving participation, while a one-year increase in of chairpersons education, leads to the probability of a 0.05 percentage points increase, a one points increase in cognitive, relational and structural social capital, leads to the probability of a 2.6, 1.8 and 1.78 percentage points increase in output, both coefficients are positive and statistically significant at 1%, 1%, 5% and at 10% level respectively.

The probit regressions and its marginal effect results confirmed that accumulated reserve availability, sex, age, and education of member's chairperson positively and significantly influence the saving decisions of the member primary cooperatives, a positive education



coefficient is certain because, most of the time, education influences life favorably, and in respect of economic decisions intensifies advanced production and then improves managerial and technological adoption efficiency.

Regarding social capital variables, all social capital dimensions: cognitive, relational, and structural have a positive and significant impact on improving members' saving participation decisions in unions in the Amhara region at 1%, 5%, and 10% significance levels respectively. The finding strengthens the saying; that villages with well-organized social capital are more likely to succeed (Kłoczko-Gajewska, 2020). It also confirms the findings of Brown and Ashman (1996) that different dimensions of social capital affect members' participation. More specifically, members' cognitive social capital like awareness of common goals, and relational social capital like trust in managers, and their collective alignment increase interest and loyalty in participating in savings. Therefore, this shows that most members are aware of the relationships between collective actions and their financial cooperatives' duty and responsibility.

#### **4.1.2.2. Social Capital and Economic Performance**

The multiple linear regression model that specified the relationship between the three social capital dimensions and the economic performance of unions indicated that the regressors are jointly and statistically significant because the overall F-statistic of 161.13 has a p-value of 0.000. At the same time, much of the variation is explained with  $R^2 = 0.8781$ . A 1,000 ETB increase in accumulated reserve in the member primary cooperatives, on average, increases 0.3 percent saving deposit, while a one-year increase in chairperson education and experience, leads to 0.02 and 0.004 percent increase in the members' amount of saving deposit respectively. The three coefficients are positively and statistically significant at 1%, 5%, and 5% significant levels respectively.



In terms of the structural dimension of social capital, empirical analysis demonstrates that social ties between the unions and members' primary cooperatives including board members, managers, and government officials positively and significantly advance the performance of the union's saving collections. The finding confirms Pisani and Micheletti's (2020) concept of social capital that social capital does not jeopardize the role of the state in favor of the market and that governments should encourage participation in local community organizations by creating a favorable environment in which organizations can communicate and operate effectively. Besides, it conforms with the importance of supporting the external networks of a business; external networks can produce information technology, market information, and budgetary resources, which are useful to the economic performance of cooperatives (Liang et al. 2015).

Regarding the relational dimension of social capital and the amount of saving collections, the econometric result shows that trust within cooperatives saving and credit unions, and member primary cooperatives are positively and significantly associated with economic performance. According to our survey, the proposed economic benefits materialized from a strong relationship tend to strengthen the commitment to joint activities, reduce transaction costs due to deepened access to information, and reduce legal enforcement costs; it also improves the collateral accessibility of members by enhancing the confidence of members horizontally and vertically. Yet, the effects of the different expressions of trust on cooperatives' performance depend on the structural contexts that are provided services complexity, members' geographic dispersion, and facilities are major characteristics that stimulate the effects (Hansen et al. 2002).

The regression results indicate that the cognitive dimension of social capital affects economic performance negatively and significantly. This shows that the lack of understanding of the vision and mission of the host cooperatives saving and credit unions by member primary cooperatives



reduces the economic performance, but according to Wang (2010), a collective alignment is one of the most essential preconditions of the beginning and development of cooperatives. An understanding of the mission and goals of cooperative saving and credit unions provide an incentive for members to act collectively and achieve these goals successfully. But in Amhara cooperatives saving and credit unions some members play their expected duty and responsibility whereas some do not.

The major reason that restricted saving is the lack of creating synergies in cooperative savings to enable members to participate in savings mobilization that would contribute to the influence on norms and the inability of cooperative societies to stabilize money demands through financial innovation. So, cooperative saving and credit unions' management must develop clear goals-oriented training need assessment and deliver practical training to the members. That is, members must be continuously trained and sufficiently informed to understand the collective mission and coordination of their cooperatives and unions.

At the time of focus group discussions, the respondents listed the following factors that lead to the tendency of decreasing social networks between members and respective unions. First, the wealth status of the unions and member primary cooperatives is in relative terms the enlarging economic size of unions leads to looser relationships between members. Second, the liquidity problems of primary cooperative members: they don't deposit the accumulated reserve that is supposed to deposit in unions, and member commitments are relaxed. Such an act has two effects, on the one hand, it reduces the relationship between members and the respective unions, on the other hand, it misses the objective of the accumulated reserve when some market risks come. Third, the managers of members play essential roles, but in most cases, professional management has not been adopted, which widens the gap between members and the unions to



which they are a member. It reminds the contribution played by social capital management to the development and success of cooperative societies that social capital is a powerful thought for understanding the emergence, growth, and functioning of a linkages network (Hossein Agahi et al. 2012).

## **5. Conclusions**

Nowadays social capital has become a fascinating concept for both scholars and policy-makers as it contains the role of economic actors who interact and organize themselves to produce better economic development. This study explores social capital and its impact on financial cooperatives' economic performance in the case of the Amhara regional state. The study adds to the literature, both theoretical and empirical knowledge about the dimensions, measurements, and role of social capital affecting the economic performance of financial cooperatives and cooperatives in general. Social capital is measured with three dimensions, the structural, relational, and cognitive dimensions. In this empirical study, these dimensions are interpreted as institutional networks, relationships, and a shared understanding of the mission and goals of financial cooperatives, respectively.

The empirical results show that members' decision in participating in saving is significantly and positively related in unions with a higher level of structural, relational, and cognitive social capital. Moreover, structural and relational dimensions of social capital positively and significantly influence the economic performance of unions. On the other hand, the cognitive dimension of social capital, that is, a lack of understanding of shared mission and goal between members significantly disturbs the performance. We can conclude that social capital generated by maintaining cooperative attitudes, transparency, and collective actions, as well as the strong trust, cooperation, and understanding of the common mission and goal can lead unions toward



success. The study also confirms that some variables other than social capital also affect unions' economic performance. These include physical and human capital. But factors such as wealth status, liquidity problems, and the lack of professional management lead to the tendency of decreasing the social networks between members and unions. As Ostrom (1994) explained the creation of social capital obliges a sustainable investment of effort and time. So, a focused and strong relationship is required to develop effective social capital that enhances the economic performance of unions and their members, but its formation needs much more effort than physical and human capital.

The results suggest that

1. Unions should strengthen the social network based on trust, and cooperation, and build a common understanding of the mission and goal of members' primary cooperatives by conducting effective general assembly meetings, training, and experience sharing,
2. Unions should establish their business networks like cooperatives saving and credit federations and/or make linkage with other financial institutions like microfinance and banks and discuss the strengths and weaknesses of their network efficiency through biannual or year-based forums, and
3. Government should pay attention to the role of cooperatives' social capital in knowledge sharing, and resource mobilizations' and encourage cooperatives with special knowledge to share it. The empirical analysis shows that cooperative saving and credit unions and their members acquire financial knowledge through social interaction to achieve economic performance. The government can establish an encouragement mechanism to reward cooperatives that contribute to access to finance and financial knowledge sharing.



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## **Annex**

### **Table 1: Descriptive summary of variables**



Variable	Obs	Mean	Std. Dev.	Min	Max
Members Savings	348	593.4422	570.8095	100	4600
Accumulated Reserve	348	1675.161	1519.833	120	9200
Chairperson Sex	348	0.916667	0.276783	0	1
Chairperson Age	348	38.9454	13.02093	19	77
Chairperson Education	348	3.623563	1.66822	1	6
Chairperson Experience	348	9.423851	9.170217	0	40
Chairperson Health Status	348	2.916667	1.189027	1	7
Cognitive Social capital	348	0.499052	0.161333	0.19	0.87
Relational Social Capital	348	0.624598	0.169952	0.25	0.97
Structural Social Capital	348	0.369368	0.132448	0.08	0.76
Physical Capital	348	0.490259	0.18874	0	1
Labor	348	2.686782	1.300476	1	7
Source of Income	348	2.850575	1.279668	1	6
Financial Capital	348	0.45546	0.252221	0.25	1
Bridging Social Capital	348	0.752874	0.431962	0	1
Training	348	0.606322	0.489268	0	1

Source: Research results, 2021

**Table 2: Pearson Correlation Analysis**

Variables	lnMS	AR	Sex	Age	Educ	exp	CHS	Cognitive	Relational	Structural	Pca	Labor	Sinc	Fca	BrSc	TrCoop
Logarithm of Members' Savings	1.0000															
Accumulated Reserve	0.7813	1.0000														
Chairperson Sex	0.0329	-0.1461	1.0000													
Chairperson Age	0.0146	0.1343	0.0715	1.0000												
Chairperson Education	0.1686	0.0977	-0.0244	0.0052	1.0000											
Chairperson Experience	-0.0064	0.1047	0.1298	0.4834	-0.0145	1.0000										
Chairperson Health Status	-0.0178	0.3724	0.0927	0.4038	-0.0260	0.4107	1.0000									
Cognitive Social capital	-0.2041	-0.0918	-0.0153	0.0708	-0.1280	0.1642	0.1181	1.0000								
Relational Social Capital	0.3614	0.1648	-0.1934	-0.4306	0.1173	-0.4360	-0.3827	-0.1748	1.0000							
Structural Social Capital	0.3841	0.3722	0.0803	0.0755	0.0395	0.0295	0.0831	0.1189	0.0722	1.0000						
Physical Capital	0.3224	0.3432	0.0054	0.1640	-0.1279	0.1108	0.1283	0.0020	0.1247	0.1358	1.0000					
Labor	-0.0462	0.2720	0.2475	0.3989	0.0093	0.4499	0.9075	0.1332	-0.4318	0.1260	0.1753	1.0000				
Source of Income	0.0918	0.0637	0.0787	0.0009	0.3178	-0.0705	0.0164	-0.1425	0.0517	-0.0446	-0.1276	0.1328	1.0000			
Financial Capital	0.5327	0.6315	-0.0843	0.0123	0.0497	-0.0092	0.1416	0.0143	0.1495	0.3441	-0.2415	-0.1236	0.0736	1.0000		
Bridging Social Capital	-0.3917	-0.4581	0.0201	-0.0977	-0.0375	-0.0961	-0.2085	0.0190	-0.0178	-0.4374	-0.1618	-0.2151	-0.0461	-0.4433	1.0000	
Training	0.6857	0.5389	0.1401	0.0898	0.0827	0.1304	0.2605	-0.0540	0.1341	0.2345	0.1593	0.2314	-0.0114	0.2760	-0.2298	1.0000

Source: Research results, 2021

Table 3: Members Saving participation decision-making and Cooperatives saving and credit unions Economic performance

Variable	Probit Model: Members' Saved Participation(MSP)		OLS Model: Economic Performance (Saving(SC))
	Coef.	Marg. Eff.	Coef.
Accumulated Reserve (1,000)	0.0015*** (0.0025)	0.0006*** (0.00009)	0.0003*** (0.00002)
Chair Person Sex	1.034 (0.643)	0.384** (0.196)	0.341*** (0.106)
Chair Person Age	0.0189* (0.0114)	0.0074* (0.0045)	0.002** (0.001)
Chair Person Education	0.128* (0.069)	0.0502* (0.0275)	0.021** (0.009)
Chair Person Experience	-0.019 (0.014)	-0.0077 (0.0055)	0.004** (0.0014)
Chair Person Health Status	-0.134 (0.301)	-0.0525 (0.118)	-0.168*** (0.049)
Cognitive Social capital	2.60*** (0.776)	1.018*** (0.302)	-0.318*** (0.0768)
Relational Social Capital	1.812** (0.843)	0.709** (0.333)	0.358** (0.113)
Structural Social Capital	1.783* (0.934)	0.698* (0.365)	0.307* (0.167)
Physical Capital	0.797 (0.667)	0.312 (0.260)	0.304** (0.109)
Financial Capital	0.836 (0.583)	0.327 (0.229)	0.112 (0.096)
Labor	-0.484* (0.292)	-0.189* (0.114)	-0.067* (0.038)
Source of Income	0.087 (0.097)	0.034 (0.038)	0.028** (0.012)
Bridging Social Capital	-0.197 (0.313)	-0.076 (0.12)	-0.079* (0.045)
Training	0.959*** (0.318)	0.367*** (0.115)	0.556*** (0.043)
Constant	7.216 (1.403)		5.008 (0.217)
<b>R2</b>			<b>0.8781</b>
<b>Pseudo R2</b>	<b>0.6151</b>		
<b>Observation</b>	<b>348</b>	<b>348</b>	<b>348</b>

**Source: Regressions Model result**

Notes: Probit model includes Coef= Coefficient, marg.Eff.= Marginal Effect and OLS = Ordinary least square, and Robust Standard errors in parentheses. \*, \*\*, \*\*\* on the coefficient tells significant level at 10%, 5% and 1% respectively.