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Linking Financial Literacy, Social Capital, and Financial Inclusion Among Women Entrepreneurs in Manyu Division, Cameroon

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Abstract

Financial inclusion has a wide range of positive effect on entrepreneurial activities, but studies indicate a lack of awareness about financial services in the large group of financially excluded individuals especially women in the economy. Most efforts to increase financial inclusion have emphasized financial literacy provided through formal training and education without due recognition that people's financial behavior and practices may also be motivated by social interactions, belongingness and interpersonal relationships. To resolve this, this study has as specific objectives: to examine the influence of financial literacy on financial inclusion among women entrepreneurs in Manyu Division; to assess the effect of financial literacy on social capital among women entrepreneurs in Manyu Division; to examine the effect of social capital on financial inclusion among women entrepreneurs in Manyu Division and to examine the mediating effect of social capital in the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division. Methodologically, the result was estimated using Ordinary Least Squared with data collected among 466 women entrepreneurs in Manyu Division using well-structured questionnaire. The result shows that financial literacy is strongly corroborating with financial inclusion (38.28%) and social capital (22.31%). In the case of social capital, it was observed that it's more of Mamfe Central (11.25%), Upper Banyang (1.57%) and Akwaya (6.96%) phenomenon. Social capital is equally observed to be strongly correlating with financial inclusion (29.18%) and it's both secondary (28.4%) and higher education (44.57%) phenomenon. The mediation result shows that social capital is marginally mediating in the relationship between financial literacy and financial inclusion. The findings suggest that the decision makers should create more awareness via financial technical workshop on the relevance of financial literacy on financial inclusion and social capital in Manyu division in particular and Cameroon in general. This is a wise-step towards business performance and amelioration of economic well-being.

Keywords: financial literacy, social capital, financial inclusion, Manyu Division, Cameroon

1. Introduction

Issues related to financial literacy, social capital and financial inclusion are top in the policy agenda of most countries and international organizations in the World today as stipulated by the Sustainable Development Goal number three (SDG 3) of the United Nations Organization. According to Bagudu & Khan (2016), the inability of most women to access appropriate and affordable finance poses a great challenge to women entrepreneurship's successful performance in Cameroon. In most developing economies, women-entrepreneurs are not very competitive when compared to their male counterparts (Piacentini, 2013; Vossenberg, 2013). Some women entrepreneurs have slow growth due to inadequate funding for their enterprises (Kumar, 2013). Proper finance of SMEs is essential to achieving the growth and sustainability objectives in business (IMF, 2019). Finance is the life wire for entrepreneurial activities and its absence turn to cause business failure, stunted growth, and early exit (Horan, 2022).

According to World Bank (2020), Cameroon has an area of 475 422 square meters and its capital is Yaounde.

English and French are her official languages. The country has a population of 26,635,592 (52% women), and it has an annual growth rate of 2.6%. 42.2% of the population is under the age of 15. On average, every Cameroonian woman gives birth to 5.1 children. In large cities such as Yaounde or Douala, women are more numerous, probably as a result of male migration to the cities for employment/economic opportunities. Cameroon is endowed with rich natural resources, including oil and gas, minerals, high-value species of timber, and agricultural products, such as coffee, cotton, cocoa, maize, and cassava. The country's general poverty rate is estimated at 39% (World Bank, 2019).

Cameroon faces humanitarian and security challenges in three ways: the Boko Haram insurgency of Nigerian origin in the north, a separatist conflict in the English-speaking provinces in the west, and cross-border threats from the Central African Republic (CAR) in the east. Cameroon's economy depends heavily on exports of primary commodities, mainly oil and oil products, wood, aluminum and agricultural products such as coffee, cocoa and cotton. As a result, Cameroon is ranked 151 out of 188 countries on the United Nations Human Development Index (2018), above many African countries. The annual economic growth has averaged 4.3% over the past decade, not consistently outpacing population growth. Real GDP was 4.2% in 2019, compared to 4.1% in 2018. This growth was driven by an increase in gas production; a slower contraction in the oil sector; continuous dynamism in the construction, processing and logging sectors; and a robust service sector. On the demand side, private consumption and investment in the transport and construction sectors are the main contributors to this growth (World bank, 2019). The economy of Cameroon benefits significantly from the services sector (51.84%) with low level of industrialization and poor mechanization of agriculture.

1.1 Presentation of Manyu Division

Manyu division is one of the divisions that makes up the six divisions of the south west region in Cameroon. It has four subdivisions which include: Eyumojock subdivision, Mamfe subdivision, Akwaya subdivision and Upper Bayang subdivision. It is bordered by the Federal Republic of Nigeria in the West, The Northwest region in the North, Ndian division in the south and in the west by Kupe Manenguba. This division is situated in the Equatorial rainforest from two to sixth degree North and characterized by heavy rainfall of about 2000mm. The average temperature is about 25o Celsius. Thus, the climatic conditions are much favourable in the cultivation of both staple and cash crops.

Manyu division just like any other division in Cameroon is mostly characterized by a rural population with Mamfe town which is the biggest town and capital of Manyu division serving as the only semi-urban setting. The main economic activities are centered on agriculture and trading. They produce some food crops such as maize, plantains, cassava, Cocoyam, Yams, Bananas, vegetables, etc. The main cash crops produced by indigenes of this division include Cocoa and Oil palm which serve as the greatest source of income to the locals.

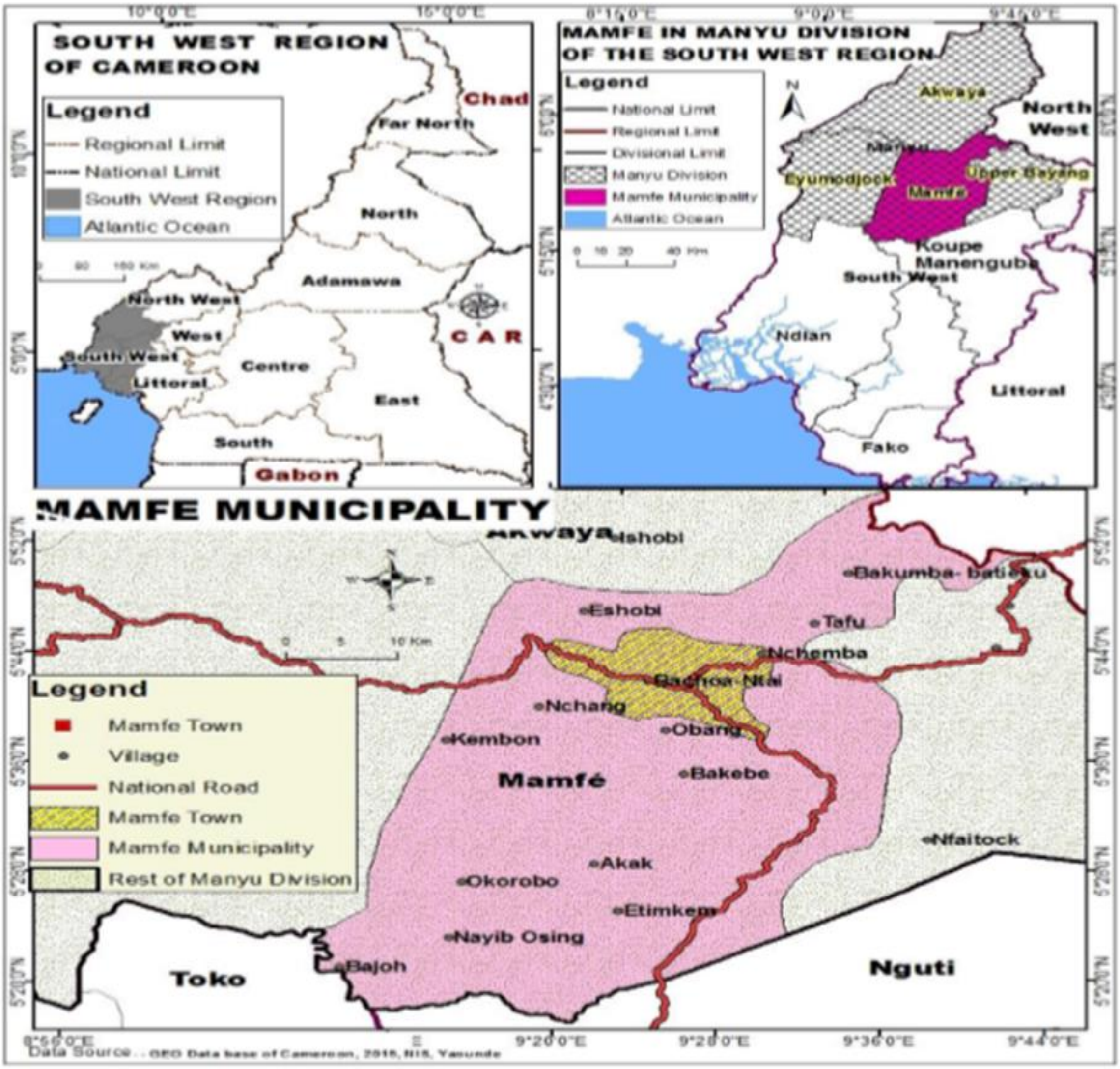


Figure 1. Map illustrating the geographical location of Manyu Division and the transportation network

Source: Neba (2002).

The division has a road transportation network linking the Federal Republic of Nigeria, the Northwest region and the rest of southwest regions following the tarring of Bamenda-Mamfe-Ekok stretch of road and Mamfe-Kumba road respectively as seen in Figure 4 below. According to Neba (2002) in his book *Geography of Cameroon*, this improvement in transportation network has brought about increase in trading activities especially for agricultural products with the greatest demand coming from neighboring country Nigeria which is the most populated Nation in Africa. Research and development activities in recent times in Manyu division have faced numerous challenges due to the crisis situation in that part of the country. The main activity practiced in this region is agriculture dominated by the cultivation of both cash and food crops. The division is mostly characterized by rural settings. Over 80% of the population leaves in rural dwellings with the only major town being Mamfe town which hosts government and private institutions and is the capital of Manyu division.

1.2 Statement of the Problem and Justifications

The global financial crisis of 2008 and in addition to the subsequent recession in many parts of the world, coupled with the inability of many African countries including Cameroon to achieve the mandate of the Sustainable Development Goals (SDGs), has contributed to the increase debate and research on how to stimulate economic activities in order to achieve growth and development in developing countries. Based on the Global Financial Inclusion Database (2018), the percentage of adult population with an account at formal financial institutions (FFIs) is 69%, which means that, about one-third of the adult population in the world are financially excluded. Note that not all individuals with an account at a FFIs are fully financially included, since a considerable number of them will be unable to receive loans for various reasons — such as risk management and a limited supply of funds. The percentage of adults who have saved at or borrowed from FFIs is much lower, only 26.7% and 10.8%, respectively (World Bank, 2020). These results show that most individuals do not have access to financial products and services.

Cameroon was rank 151 out of 191 countries as per the 2021/2022 Human Development Index. According to IMF (2021) issues such as poverty, limited access to financial services, low financial education and literacy, lack of trust in financial institutions and failed policies have hindered entrepreneurial activities especially among the women and slow down the rate of growth and development. Although there has been some economic progress, poverty remains a significant problem in Cameroon. An estimated 37.5 percent of the country's population lives below the poverty line with that figure rising above 70 percent in some regions.

In Cameroon as elsewhere, women's poverty, their comparative lack of leadership and participation in decision making and their lack of control over assets, often attributed to a number of personal factors, including low literacy, skills, self-esteem, financial security, and level of awareness of their rights. However, women in Cameroon live in a predominantly patriarchal society in which their economic dependency on men is reinforced by discretionary laws and policies in public institutions (Endeley, 1998; World Bank, 1994; Nji, 1994). The position of women in Cameroon is weak, though there is a National Gender Equality Policy. This doesn't extend to economic empowerment. Customary law limits access to and control of assets (World Bank, 2015). When women have access to finance, they will be able to carry out entrepreneurial activities and effectively contribute to the economic growth and development of the nation. This will go a long way to ensure social justice, equitable distribution of wealth and improvement in their standard of living (Aguera, 2015).

According to the Global Findex (2021), almost half of the adult population in sub-Saharan Africa still lacks access to formal financial accounts, unfortunately, women are disproportionately impacted by this issue, with only 49 percent of women having access compared to 61 percent of men. This 12 percent gender gap in account ownership is among the highest in the world. Sub-Saharan African countries are characterized by a large number of entrepreneurs especially women. These women entrepreneur contribute to the achievement of sustainable development goals. Their business activities are vital for the competitiveness of sub-Saharan African countries such as Cameroon but most of them do not have access to appropriate and affordable financial services (Harelimana, 2017; Kimani, 2016; Eniola & Entebang, 2015; Koech, 2011). Ensuring access to finance for women entrepreneurs is crucial for developing countries like Cameroon, given the important role women play in shaping the next generation, their financial inclusion will lead to greater security and prosperity for women and men, their families, enterprises and communities (World Bank, 2018).

According to FINDEX survey (2014), the CEMAC financial system is highly dominated by Cameroon, but the population of those who own bank accounts is only 12.2% in Cameroon when compared to 29% percent on average in sub-Saharan Africa and it should be noted that, the poorest communities are the least well-served by formal financial institutions. Going by Demirgüç-Kunt & Klapper (2014), only 11% of adults in the Central African sub-region are banked, which is lower than the average of 27% in sub-Saharan Africa in the Southern Africa region.

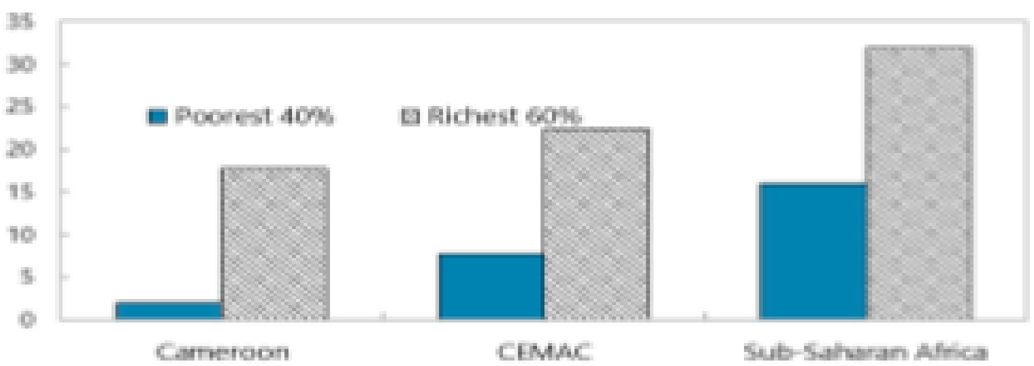


Figure 2. Account Ownership: By Income Level (in percent)

Source: Global FINDEX (2014).

According to Africa Competitive Report (2017), access to finance is reported as the second most problematic factor to doing business after corruption. In addition, the poorest regions are the least well-served by formal financial institutions.

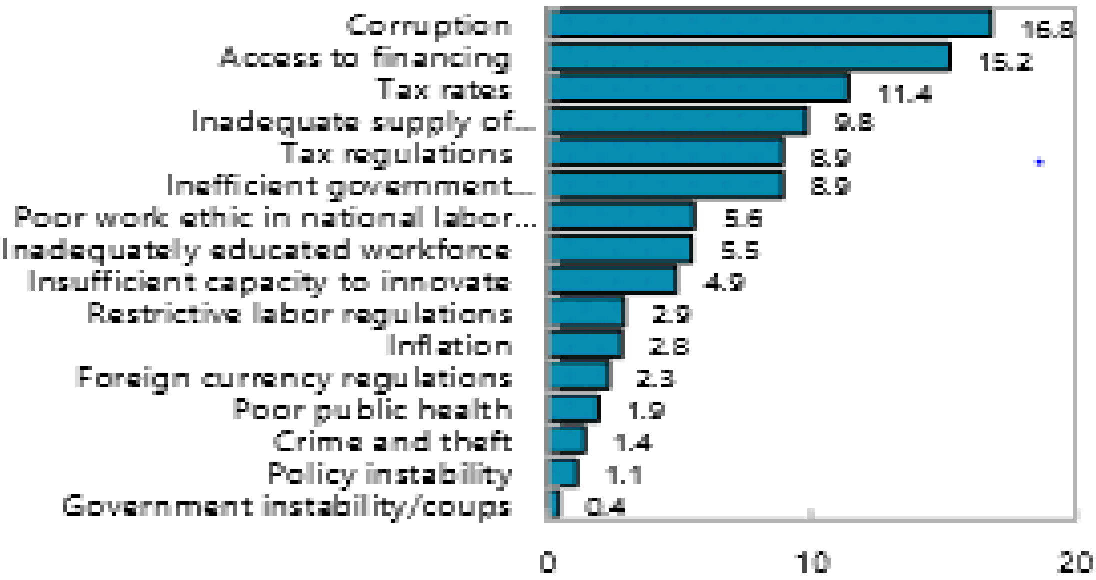


Figure 3. Cameroon: Most Problematic Factors for Doing Business, 2016

Source: Doing Business (2016).

World Bank (2018), only 15% of the adult population in Cameroon has access to formal financial services, such as bank accounts or credit cards. The implication of this this is that it affects Cameroonians ability to save, invest and access credit to develop their economic activities. The causes of women financial exclusion in Cameroon are also associated with the low-income level of the population which is also a major barrier to access to financial services. Banks and other financial institutions prefer dealing with rich individuals and large businesses because they are credit-worthy and very profitable for them. Most of these financial institutions are also located in urban areas and this makes access to finance difficult for those in the rural and peri-urban areas. The lack of relevant financial education makes matters worse (Kengne, 2018).

According to IMF (2018), access to finance in Cameroon is low, unevenly distributed, and represents a key impediment to private sector development. Global Findex (2017) data indicates that 20.7% of the adult population have an account at a formal financial institution (bank or MFI) and provides separate data for mobile money accounts. Finscope (2017) uses a slightly different definition, separating the banks from other informal which includes both MFIs and mobile money. In its analysis, overall, 49% of adults are formally financially included. 15% informally financially included and 36% financially excluded as seen in Figure 4 below.

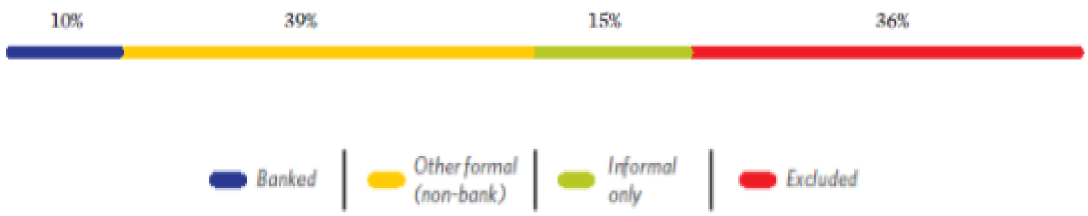


Figure 4. Overall Financial Access Strand

Source: FinScope Cameroon (2017).

Demirguc-Kunt et al. (2018) find out that about 77% of poor people are unbanked and might not have access to appropriate financial services. In addition, the poorest regions are the least well-served by formal financial institutions (FINDEX survey, 2014). This problem is made worse as a result of financial illiteracy in some parts of the population.

The degree of financial inclusion depends on socio-economic conditions. Access to finance varies across gender (Findex survey, 2014). According to a consumer survey conducted in Cameroon by FinScope (2017), access to finance varies according to gender. An overall, 47% of females are formally financially included. 16% of females informally financially included and 37% of females are financially excluded while 53% of males are formally financially included. 13% of males informally financially included and 34% of males are financially excluded as seen in Figure 5 below.

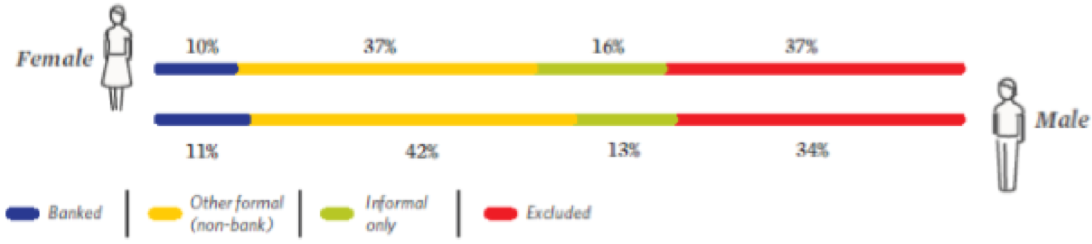


Figure 5. Access Strand by Gender

Source: FinScope Cameroon (2017).

The emergence of innovations in both products/services and delivery mechanisms, made possible by the mobile revolution, makes financial innovation essential for the effectiveness of financial inclusion if well managed. Financial institutions in Cameroon have started to develop financial products adapted to the needs of the poorest population, such as low-cost savings accounts or microcredits and the development of digital financial services. Theis has also resulted to the emergence of new players in the financial system, such as mobile payment services, mobile money and fintech companies. These new channels facilitate financial transactions and act as a channel among individuals and businesses through which people and businesses can exchange their knowledge, information, and ideas and facilitate financial transaction (Bongomin et al., 2020). It should be noted that digitalization of the banking and financial sector also has a growing influence in bringing about financial inclusion which cannot also be under estimated (Findex, 2017). But in Cameroon, although mobile money is often seen as a solution for reaching rural populations, the reality is that it is far more widely used by urban populations, mainly owing to poor network coverage in rural areas and the difficulty of establishing agent networks. According to World Bank (2018), only 46% of females in Cameroon uses mobile money while 56% of males uses mobile money. Based on these figures, 84% of both males and females in urban areas uses mobile money while only 16% of both males and females in rural areas uses mobile money. This further buttress the disparity as seen in Figure 6 below.

Figure 6. Distribution of Mobile Money Users by Gender and Location

Source: Data from World Bank Global Financial Inclusion Database (2018).

Despite, these challenges that affect the functioning of the Cameroonian financial sector, according to IMF (2022), Cameroon is a country with a lot of unexploited potentials. Cameroon has a large, young and vibrant population, a growing economy endowed with natural resources. Some steps are being taken to ensure financial inclusion, to improve the business climate and to achieve the United Nation MDGs. One of the priority objectives listed in the new national development strategy 2020-2030 (NDS30) is to promote financial inclusion. But, looking at the social indicators, Cameroon is still facing a-lot of problems with respect to achieving universal basic education, financial inclusion, equitable distribution of income and wealth, poverty and unemployment. According to Business in Cameroon (2024), Cameroon launched its National Financial Sector Development Strategy (NFSD) on May 31, 2024, and one of the six strategic areas identify is to increased financial inclusion and access to credit for micro, small and medium enterprises. The National Financial Sector Development Strategy aims at providing solutions to the problems identified in a 2022 diagnostic analysis such as limited access to financing for micro and small and medium enterprises, inadequate long-term financing among others.

But, according to the World Bank (2018) on efforts to achieve financial inclusion in Cameroon stated that, Cameroon has been considering developing a financial inclusion strategy but has made little progress. The worldwide association of central banks, in its 2015 report, does not list Cameroon either as a country having a national financial inclusion strategy, nor in the process of developing one. BEAC (2018) Annual Report makes no reference to one.

IMF (2018) has recommended using financial inclusion (FI) strategies and policies to ensure access to financial services for every member of the population especially the vulnerable groups. Financial inclusion aims at encouraging the underprivileged, poor and vulnerable individuals to enjoy appropriate financial services at an affordable price. In addition, financial inclusion is now seen as a policy tool for achieving and fostering many economic objectives such as entrepreneurship, production, economic growth and development (World Bank, 2018). Social capital enhances the activities of social actors and can stimulate entrepreneurial activities which help to improve society's performance. Financial inclusion alone cannot solve the financial problems of entrepreneurs in Cameroon. It needs to be holistic by associating it to financial literacy and social capital in order to get adequate results in ensuring access to financial services and improving the wellbeing of poorer individuals and small businesses. In the absence of easily accessible formal financial services, people turn to informal mechanisms. The most common in Cameroon are the 'tontines' and 'aladi', used by some 50% of the adult population (World Bank, 2018).

Ensuring access to finance is therefore necessary since this will help increase entrepreneurs' abilities to improve the quality of their output, market share (exports) and their financial results (turnover, profit, etc.) through the use of good strategies and relevant actions (Koontz & Donnell, 2003). However, access to finance is a serious challenge to most entrepreneurs in Africa in general (Beck et al., 2015). Financial inclusion has been identified by a number of researchers as what an entrepreneur requires to stay in business (Stephen & Sibert, 2014; Onaolapo & Odetayo, 2012; Beck et al., 2009). Indeed, it enables those enterprises that find it difficult to acquire funds from the traditional banking institutions to have access at a lower cost to a whole range of financial products and services (Tadjudje, 2016; World Bank, 2014; Beck et al., 2015; Sarma, 2008).

Huang (2010) and Andrianova et al. (2011) emphasized the link social capital has with financial inclusion, financial literacy and the importance of financial inclusion in stimulating economic activities. Financial exclusion is still a great problem in the world as statistics indicate that many counties in the world are still far from achieving financial inclusion for all goals by 2030, this can be seen from the World Bank 2017 statistics that 1.7 billion adults in the world are unbanked. The main reason for this is low levels of FI which is also aggravated by the fact that formal financial institutions are not willing to offer financial services to the poor because they think that it is not profitable (Mia et al., 2019). In Cameroon, financial institutions only love to finance large businesses, small entrepreneurs and their businesses are being left out. Low level of financial inclusion is one of the main problems of the Cameroonian banking and financial sector.

Also, financial inclusion and financial literacy have attracted the attention of many researchers but there is still a lack of knowledge and understanding about relevant financial products and services to satisfy entrepreneurs' needs (Owori, 2020). Most efforts to increase financial inclusion have emphasized financial literacy provided through formal education and training without due recognition that people's financial behavior and practices may also be motivated by their social interactions, belongings and interpersonal relationships. According to Mba et al (2019), there is a link between the level of financial inclusion and the level of economic activities, growth and development. This is also reflected in the growth rate of countries. Countries with high financial inclusion levels have a high rate of economic growth and vice versa. However, Ubi & Mba (2019) and Kimani (2016) have established the fact that financial inclusion and financial literacy are very important in enhancing economic activities. Social capital has an impact on saving behavior. Social capital, financial inclusion and financial literacy are topics of contemporary significance and relevant for today's entrepreneurs.

Prete (2013) have also identified the problem of limited financial literacy. Despite the high-rate schooling experience in Manyu Division but the rate of financial inclusion is still low. Also, Beck & Brown (2011) have indicated that the government of Cameroon has done much through the creation of banks and micro finance institutions to ensure that entrepreneurs have access to finance, also the Cameroon finance law of 2022 advocated the imposition of a tax of 15% on the income plus 10% additional municipal centimes (CCA) on any non-profit entity exercising a profitable commercial activity, including tontines. These are all measures aimed at achieving financial inclusion, but this problem continues to persist.

However, despite women's record in shoring up family livelihoods over the past decades, Cameroonian women's full potential has yet to be harnessed because of the challenge in accessing appropriate financing. Women constitute the majority of Cameroonians population living below the poverty line (defined as person earning less than 21000 CFA, less than 20-pound sterling, per annum) (UNDP, 1999). The 1999 Human Resource Development report cited 'gender gaps' between female and Male achievement in the areas of education, economic activities, and access to finance (UNDP, 1999). Mia et al (2019) opine that the state of affairs characterizing the life of women in Manyu has been named with pervasive stereotypes that have labelled women as only homemakers, caring mother's and office housekeepers. This has given the women a new statute and therefore it has created an unfavorable environment for the women and consequently marginalizing them and inhibiting their roles to development. Persistent gender inequality and socio-cultural constraints, exacerbated by humanitarian crises, limit women's and youths' access to basic social services and opportunities.

According to Talom & Tengeh (2019), despite the undeniable importance of financial inclusion, access to finance is still a major challenge in Cameroon. Some steps have been taken to address this situation but there is still much to be done to enable the entire population, especially the vulnerable, to access financial services. However, ongoing initiatives show that there are prospects and that it is possible to solve the problem of access to finance and to promote economic activities in the country.

Financial inclusion and financial literacy have attracted the attention of many researchers but despite the undeniable importance of financial literacy in explaining financial inclusion, to the best of my knowledge many studies have linked financial literacy, social capital and financial inclusion to other economic variables such as entrepreneurship, production, growth etc. However, none has simultaneously linked the three concepts. This makes it problematic and a call for concern especially in the context of Cameroon. The present study is bridging the gap. Also, the mediating role of social capital in the relationship between financial literacy and financial inclusion is still misunderstood and untested. Several studies have been done in areas of financial literacy, social capital and financial inclusion such as (Barry, 2018; Demirguc-Kunt et al., 2015; Mujeri, 2015). Their findings have produced mixed results regarding the effect of financial literacy on financial inclusion and the mediating role of social capital in this relationship. It is at the context of such mixed conclusions that created and necessitated the need to carry out a study from a Cameroon perspective to establish the mediating role of social capital in the relationship between financial literacy and financial inclusion among women entrepreneurs.

1.3 Aim of Study

This study aims at building a framework by linking financial literacy (Pulungan & Ndruru, 2019), social capital (Bongomin et, al, 2016) and financial inclusion (IMF, 2018) among women entrepreneurs in Manyu Division by examining the extent to which financial literacy affects financial inclusion through social capital mediation among women entrepreneurs in Manyu Division.

1.4 Research Questions

This study intends to provide answers to the following questions:

1) What is the effect of financial literacy on financial inclusion among women entrepreneurs in Manyu Division?
2) What is the effect of financial literacy on social capital among women entrepreneurs in Manyu Division?
3) What is the effect of social capital on financial inclusion among women entrepreneurs in Manyu Division?
4) To what extent does social capital mediate the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division?

1.5 Research Objectives

The objectives of this study are:

1) To examine the influence of financial literacy on financial inclusion among women entrepreneurs in Manyu Division.

2) To assess the effect of financial literacy on social capital among women entrepreneurs in Manyu Division.
3) To examine the effect of social capital on financial inclusion among women entrepreneurs in Manyu Division.
4) To examine the mediating effect of social capital in the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division.

1.6 Hypotheses

Based on the objectives mentioned above, the study assesses the hypotheses as exposed in the table below.

Table 1. Hypotheses

Objective	Stated hypothesis
Objective 1	H_1: Financial literacy has a positive significant influence on financial inclusion among women entrepreneurs in Manyu Division.
Objective 2	H_2: financial literacy has a positive significant effect on Social Capital among women entrepreneurs in Manyu Division.
Objective 3	H_3: Social Capital has a positive significant effect on financial inclusion among women entrepreneurs in Manyu Division.
Objective 4	H_4: Social capital significantly mediates the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division.

Source: Author (2024).

2. Literature Review

2.1 Empirical Review/Hypotheses Development

2.1.1 The Effects of Financial Literacy on Financial Inclusion

Literature on financial literacy generally supports the notion that higher financial literacy increases financial inclusion (Hsaio & Tsai, 2018; Grohmann, et al., 2018). This view manifests through studies that investigate several constructs or determinants of financial literacy and how they relate to individual financial behavior. Financial knowledge, for instance, influences personal attributes such as attitudes, awareness, and cognitive abilities, which in turn affect how individuals' budget or manage their finances (Atkinson & Messy, 2011: 659). Similarly, enhanced financial knowledge is essential for behavioral change since increased financial literacy training leads to enhanced financial behavior and the greater use of financial services (Sayinzoga, et al., 2016). Conversely, the lack of financial awareness negatively impacts market participation (Guiso & Jappelli, 2005). This underpins the importance of financial literacy on financial inclusion.

There is a vast literature on the level of financial literacy and its role in, and impact on, many factors such as retirement planning, wealth creation and decision-making. For example, Lusardi & Mitchelli (2007) claimed that the causes and consequences of financial illiteracy are very important, especially when ensuring access to finance. Their study revealed that, irrespective of age, many people in US are affected from being financially illiterate. They also stated that financial illiteracy was widespread and may have serious impacts on saving behavior, retirement planning and other financial decisions. This situation has encouraged governments and some non-profit organizations to develop significant initiatives to improve the level of financial literacy and understanding of basic economics concepts among people especially entrepreneurs (Amidjono et al., 2016; Arora, 2016). Lusardi & Mitchell (2007) in their study also revealed that lack of financial literacy is widespread among some population subgroups, such as people with lower incomes, less education and women. Those people are more likely to face more difficulties in managing their businesses. Another study by Lusardi & Mitchell (2011) found that people with a high level of financial literacy are more likely to have access to and used of finance and successful entrepreneurial ventures.

Arun & Kamath (2015) observe that besides providing access, financial inclusion should address factors that enable individuals to better manage their financial resources and build financial capabilities. They recognize financial literacy and consumer education as critical drivers of the broader focus on financial exclusion and the meeting of needs of the currently unbanked (Arun & Kamath, 2015). Similarly, strategic approaches at the national level reflect the international policy interest in financial inclusion, financial education, financial consumer protection and evidence that financial literacy and financial inclusion are associated. Issues related to financial literacy and financial inclusion are top in the policy agenda of most countries and international organizations in the World today since the ultimate intention of financial education is for financial inclusion and to support behavior change (Atkinson & Messy, 2013).

World Bank (2008) stated that financial literacy helps to improve efficiency and quality of financial services. This is supported by Lusardi (2009) and Greenspan (2002) who suggests that financial literacy helps in empowering and educating the poor so that they are knowledgeable and capable of evaluating different financial products and services to make informed financial decisions, so as to derive maximum utility. Therefore, the poor more than ever need a certain level of financial understanding to evaluate and compare financial products, such as bank accounts, saving products, credit and loan options and payment instruments. Scholars like Campbell (2006) and Grable & Joo (1998) argue that financial learning increases financial knowledge and affects financial decisions, choices, attitudes and behaviors of the poor. Indeed, OECD (2013a, 2013b) confirms that financial literacy facilitates access and encourages widening use of relevant financial products and services for the benefit of poor individuals.

Furthermore, Braunstein & Welch (2002) also observed that financial literacy can offer a better understanding of mainstream financial services and encourages the unbanked to avoid non-standard services. Financial literacy facilitates decision making processes, which improve the savings rates, credit worthiness of potential borrowers, therefore resulting in improved access and use of financial services by the poor (World Bank, 2009; OECD, 2009). Therefore, financial literacy facilitates effective product use by helping poor households to develop skills to compare and select the best financial products, which suits their needs hence leading to increased financial inclusion. However, Atkinson & Messy (2013) argue that lack of knowledge, awareness, confidence and certain attitudes and behaviors that inhibit use of, and trust in, formal financial products create barriers to access, by preventing poor individuals from making full use of existing products.

Most of studies highlight the significance of financial literacy on financial inclusion (Barro et al., 2022; Khan et al., 2022a; Khan et al., 2022b; Zhao et al., 2024). Tu et al. (2010) suggest that financial literacy is essential for financial resources of a firm. Bongomin et al., (2016) stated that financial literacy can aid in the improvement of the efficiency and quality of financial services. Financial inclusion facilitates access to and encourages the widespread use of financial products and services relevant to poor people's interests. Financial literacy can help the unbanked understand mainstream financial services and encourage them to avoid subpar services.

Financial literacy empowers and educates the public to gain a broader understanding of and evaluate various financial products and services to make informed financial decisions that maximize utility. Financial learning can improve financial knowledge while influencing financial decisions, choices, attitudes, and behavior (Bongomin et al., 2016). Another study states that the higher the knowledge about financial literacy, the higher the knowledge about financial inclusion so that people with high financial literacy can better access existing funding sources. (Nuryani & Israfiani, 2021; Guan, 2020).

According to Rangarajan (2008), financial literacy has levels in the following order: First and foremost, be well-literate. This means that you should be confident in your understanding of financial service organizations and products, including their features, benefits, and hazards, as well as your rights and obligations. You should also be adept at using these goods and services. Second, have sufficient literacy and confidence in their knowledge of financial service providers, financial goods, and services, including their characteristics, advantages, and hazards, as well as their rights and responsibilities. Third, less literate, with a limited understanding of financial services, goods, and institutions. Fourth, lack of literacy, lack of understanding and trust in financial service providers, financial services and products, and a lack of proficiency in using financial services and products. According to the (OECD, 2018), indicators that can be used to measure financial literacy are First, Financial Knowledge. Second, Financial Behavior, and Third, Financial Attitudes. This indicator is used to measure the performance of financial literacy on financial inclusion. The results of Pulungan & Ndruru (2019) demonstrate how financial inclusion is positively and significantly impacted by financial literacy, with higher financial inclusion being associated with higher financial literacy levels. This is in line with research by Grohmann, Klühs, and Menkhoff (2018), which states that there is a positive and significant effect between financial literacy and financial inclusion. Thus, the following hypothesis was developed based on the explanation.

H1: Financial literacy has a positive significant influence on financial inclusion among women entrepreneurs in Manyu division

2.1.2 The Effects of Financial Literacy on Social Capital

Social capital can have a positive impact on educational outcomes and economic development (Bongomin et al., 2016). The source of knowledge and identity brought to the interaction of the society individually and collectively is the source of available social capital (Bongomin et al., 2016). Social capital is the subset of resources used to achieve the desired goal in each specific interaction that contributes to the common goal. Poor households participating in the association network can encourage financial literacy, allowing them to make sound financial decisions and choices (Bongomin et al., 2016).

Putnam (2000) suggests that social capital can positively influence educational outcomes and contribute to economic development. This is supported by Balatti & Falk (2002) who observed that learning process seen in terms of change in knowledge and identity resources depends on social capital in making socio-economic contributions to communities. Indeed, evidence by Cohen & Nelson (2011) revealed that poor households can improve their financial knowledge and skills, which enable them to make wise financial decisions and choices through associational networks. Past studies have investigated the importance of social capital in relations to financial literacy (Falk & Kilpatrick, 2000; Nahapiet & Ghoshal, 1998; Schuller & Field, 1998). Falk & Kilpatrick (2000) observed that social capital available to the participants lies within the knowledge resources and the identity resources that are brought to the interaction by the participants individually and collectively. The subset of these resources used to achieve the desired objective of any specific interaction that contributes to the common purpose constitutes social capital.

In contention, according to Bandura (1986), people learn from one another through observation, imitation and modelling in social interaction. The social learning theory emphasizes that people learn by observing other people (models) whom they believe are credible and knowledgeable within the social structure. Thus, social capital of relationships is a resource that can facilitate access to other resources by individuals or groups for a specific purpose (Balatti, 2006). The poor learn through social interaction by which they begin to understand and form values, knowledge and attitudes about financial products and services. Interactions by poor households in networks act as conduits for knowledge and information transfer among the poor (Reagans & McEvily, 2003). Thus, Cohen & Nelson (2011) revealed that poor households in associational networks may improve their financial knowledge and skills, which enable them to make wise financial decisions and choices.

People with high financial literacy will be more confident in carrying out social interactions (Khan et al., 2022). The impact of financial literacy on financial inclusion increases when social capital is used as a mediating variable, implying that the impact of financial literacy on financial inclusion is maximized when social capital is used as a mediating variable (Saputra & Dewi, 2017). Based on the explanation, therefore it is hypothesized:

H2: Financial Literacy has a positive significant effect on social capital among women entrepreneurs in Manyu division

2.1.3 The Effect of Social Capital on Financial Inclusion

Many studies suggest that social capital and financial inclusion are related and interact. Social capital increases the provision of financial services (Khaki & Sangmi, 2012). Putnam (2000) observed that a social capital interface with access to resources through bonding and bridging results into trust and collective action. Past scholarly work indicates that social capital generates information channels, facilitates transactions and reduces costs in accessing financial services such as credit (van Bastelaer, 2000a, 2000b; Woolcock, 1999).

Indeed, social capital in the form of networks and trust reduces opportunistic behavior among the poor through peer pressure mechanism, which prevents default problems (Karlan,2007; Armendariz & Morduch, 2005). Additionally, Aryeetey (2005) argued that group lending is a practicable method of microfinance lending since it is acting as a social collateral and ensure the timely repayment of the loan by members of a group. With group lending it is easier for follow-up, monitoring and recovery of the loan. This reduces transaction costs and increases access to financial services among the poor. Most micro finance institutions rely on social capital in their financial inclusion initiatives to extend financial services to the poor. Their successes have greatly relied on network mechanisms, especially to monitor and sanction participants (Karlan, 2003; Woolcock, 1999). Social ties and resulting potential for sanctions between poor household's help mitigate adverse selection and moral hazard problems in joint liability lending contracts. Thus, social capital of the poor in the form of trust and networks, acts as a substitute for lack of physical collateral in order to enable access to financial services (Woolcock, 2001).

Previous research has shown that social capital creates information channels, facilitates transactions, and reduces access to financial services such as credit (Bongomin et al., 2016). Through peer pressure mechanisms, social capital in the form of networks, and trust reduces opportunistic behavior among the poor, preventing problems from occurring. Poor people's social capital informs us that trusts and networks serve as a substitute for the lack of physical guarantees which act as social collateral that allow access to financial services (Bongomin et al., 2016) and by so doing creating access to some financial products and services by all members of the population especially the vulnerable groups and hence financial inclusion. Social capital as a value shared between its members in society allows for cooperation. Social capital will increase financial education and awareness among members of society (Filipek et al., 2019; Nuryani & Israfiani, 2021).

Khan et al. (2022) studied the moderating role of social capital in the relationship between financial literacy and financial inclusion and suggested that financial literacy combined with social capital as moderation will have an impact on financial inclusion. Social capital facilitates financial education in knowledge and skills through network interactions, which is critical for increasing financial inclusion (Saputra & Dewi, 2017). As a driver of financial literacy, social capital plays an essential role in mediating and enhancing various resources, including knowledge and skills acquired by the community. Financial inclusion can gradually increase if social capital is built as a dimension of values, culture, perceptions, institutions, and mechanisms in positive activities to empower people's perspectives (Pulungan & Ndruru, 2019). Social capital mediates the relationship between social intermediation and access to financial services to some extent (Saputra & Dewi, 2017).

According to Saputra & Dewi (2017), social capital is solidarity owned, self-confidence and facilities for running a business, which comes from social relations involving family, friends, co-workers and others. Social capital refers to networks, norms and trust to facilitate mutually beneficial cooperation (Bongomin et al., 2016). There are 6 main elements of social capital (Widodo, 2016), namely: (1) Participation in a Network, (2) Reciprocity, (3) Trust, (4) Social Norms, (5) Values, and (6) Proactive action. Based on Bongomin et al. (2016), which adopted the World Bank Social Capital Initiative, social capital is measured using dimensions or indicators, namely: (1) Trust, (2) Bonds, (3) Bridging and (4) Collective Action. Meanwhile, based on the results of research by Pulungan & Ndururu, (2019), social capital has a positive and significant effect on financial inclusion because the better the level of trust in financial inclusion, the more development of financial inclusion will increase. This research is also supported by Safira & Dewi (2019), who state that there is a significant relationship between social capital and financial inclusion. Based on the explanation, the following hypothesis was developed:

H2: Social Capital has a positive significant effect on financial inclusion among women entrepreneurs in Manyu Division

2.1.4 The Mediating Role of Social Capital in the Relationship Between Financial Literacy and Financial Inclusion

Previous research has shown that social capital creates information channels, facilitates transactions, and reduces access to financial services such as credit (Bongomin et al., 2016). Through peer pressure mechanisms, social capital in the form of networks, and trust reduces opportunistic behavior among the poor, preventing problems from occurring. Poor people's social capital informs us that trust and networks serve as a substitute for the lack of physical guarantees, that is acting as social collateral that allow access to financial services (Bongomin et al., 2016). Social capital as a value shared between its members in society allows for cooperation. This social capital will make people learn from each other to be able to enjoy existing financial services (Nuryani & Israfiani, 2021; Filipek et al., 2019). Social capital could be a contributing factor to bring about financial inclusion and can also help in ensuring financial literacy.

Going by Khan et al. (2022) states that financial literacy combined with social capital as a mediating variable will have an impact on financial inclusion. Social capital facilitates financial education in knowledge and skills through network interactions, which is critical for increasing literacy and financial inclusion (Saputra & Dewi, 2017). As a driver of financial literacy, social capital plays an essential role in mediating and increasing various resources, including knowledge and skills acquired by the community. Financial literacy and financial inclusion can gradually increase if social capital is built as a dimension of values, culture, perceptions, institutions, and mechanisms in positive activities to empower people's perspectives (Pulungan & Ndruru, 2019). Social capital mediates the relationship between financial literacy and access to financial services to some extent (Saputra & Dewi, 2017). Based on the explanation, the following hypothesis was developed.

H4: Social Capital significantly mediates the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division

2.1.5 Conceptual Framework

The conceptual framework linking financial Literacy, Social Capital and Financial Inclusion among women entrepreneurs in Manyu Division is of relevant to this study because it provides an opportunity to used social capital to mediate the relationship between financial literacy and financial inclusion in order to give a holistic solution and to encourage women entrepreneurship. These variables are positioned in the conceptual framework shown below:

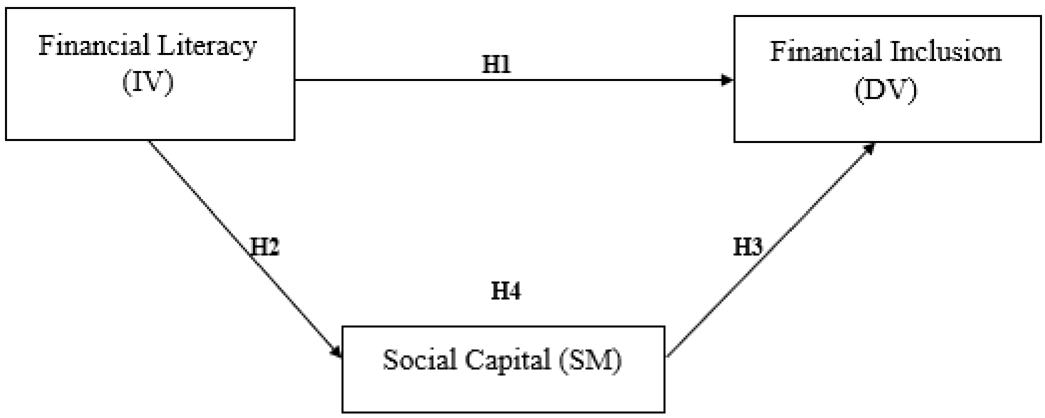


Figure 7. Conceptual Framework

Source: Author (2024).

3. Methodology

3.1 Research Approach Used in This Study

Process	Purpose	Logic	Outcome
Quantitative	RO1: RO2: RO3, and RO4: Predictive	Deductive	Applied Research

Source: Author (2024).

A quantitative research approach was chosen because it can be used to predict the influence of social capital on financial literacy and financial inclusion. It was considered a useful approach to link these three variables among women entrepreneurs in Manyu. The study adopted a cross-sectional research design and quantitative method. The primary survey conducted enabled the researcher to obtain facts and answers from the population at one specific point in time which increased the validity and generalizability of findings. A cross-sectional research design was used because it allows collecting data from the population over a shorter period. It is even the cheapest and less time-consuming research design than others, easily collects data, and excludes the recurring mistakes which were common in longitudinal research design (Bongomin et al., 2016). This study will use the deductive approach. The relationship will be tested. The hypotheses developed all aligned with the concept of social capital, financial inclusion and financial literacy.

The target population are women entrepreneurs in Manyu Division. The population for this study was drawn from the four subdivisions namely Upper Banyang, Akwaya, Mamfe Cenral and Eyomojock.

Table 2. Location of respondents in Manyu Division

Subdivision	Frequency	Percent	Cumulative Percent
Mamfe Central	101	21.7	21.7
Upper Banyang	149	32.0	53.6
Eyumojock	118	25.3	79.0
Akwaya	98	21.0	100.0
Total	**466**	**100.0**	**-**

Source: Author (2024).

Sampling frame is an enumeration of all objects or individuals under a particular study. Data was collected from women entrepreneurs in Manyu Division. They comprised 46 women entrepreneurs involve in technology sector, 334 in retail businesses, 57 in hospitality, 21 in health care, 6 in manufacturing and 2 in the service sector.

Table 3. Main industry of respondents' business

Different business categories	Frequency	Percent	Cumulative Percent
Technology	46	9.9	9.9
Retail	334	71.7	81.5
Hospitality	57	12.2	93.8
Health Care	21	4.5	98.3
Manufacturing	6	1.3	99.6
Service	2	.4	100
Total	466	100.0	-

Source: Author (2024).

The study made use of the following sampling technique. Stratified sampling techniques to sample the region by dividing Manyu division into subgroups called subdivisions. Purposive sampling technique by using the women entrepreneurs who can provide valuable insight into the research questions because of their line of business activities which is related to aim of the study. The distribution of the questionnaires was based on a convenience sampling and a snowball sampling or chain-referral sampling.

3.1.1 Sample Size Calculation

Applying the Yamane (1967) sample size formular: $n = \frac{N}{1 + Ne^2}$. Where: n= sample size of population, N= Total sample population (from the Ministry of SMEs in Mamfe, N= 1500 women entrepreneurs) and **e=** Standard error (mathematically assumed to be 5% (0.05)).

Thus; $$n = \frac{1500}{1 + (1500)0.05^2} = \frac{1500}{4.75} = 315.789$$

Hence, the minimum sample size according to Yamane technique is equivalent to 316 respondents. However, for robustness, we targeted a total of 466 women entrepreneurs in Manyu division. Thus, 466 questionnaires were administered to 466 women entrepreneurs in Manyu Division which is greater than the approve sample size of 316 individual as per our scientific calculation.

A pilot study was conducted using a group of 10 participants to assess the instrument's reliability. The details of the pilot test are provided on Table 4.

Table 4. Pilot test details

Activity	Description
Pilot test respondents	10 women entrepreneurs
Place	Manyu Division, Cameroon
Date	1–20 March 2024

Source: Author (2024).

The questionnaire's reliability was determined via test–retest and Cronbach's alpha coefficient calculations to evaluate all of the items. All questionnaire items had Cronbach's alpha coefficient of at least .787.

Operationalization of Variables

Variables		Indicators	Source
Financial Literacy (FL)	Independent Variable (IV)	1. Financial Knowledge	OECD, (2018)

		2. Financial Behavior 3. Financial Attitudes 4. Financial Skills	Pulungan & Ndruru, (2019)
Social Capital (SC)	Mediating Variable (MV)	1.Collection Action 2. Bonding 3. Bridging 4. Trust	Bongomin, et al., (2016) Saputra & Dewi, (2017)
Financial Inclusion (FI)	Dependent Variable (DV)	1. Access 2. Usage 3. Quality 4. Welfare	OECD, (2018) Pulungan &Ndruru, (2019)

Sources: Author (2024).

3.1.1.1 Model Specification

The model specification aligned with the hypotheses. The statistical model displayed below aims to link financial literacy, social capital and financial inclusion among women entrepreneurs in Manyu division. In other words, we established a chain of influences where social capital influences financial literacy, and social capital also influences financial inclusion. The ordinary least square technique was used to test each of the first three objectives. In testing for mediation, which is the fourth objective, the following steps are used.

Model specification for objective One, Two and Three

The econometric model applied in this study particularly objective one, two and three is:

$$FI_i = \beta_0 + \beta_1 FL_1 + \beta_n \chi_n + \varepsilon_{1i} \tag{1}$$

$$SC_i = \beta_0 + \beta_1 FL_1 + \beta_n \chi_n + \varepsilon_{1i} \tag{2}$$

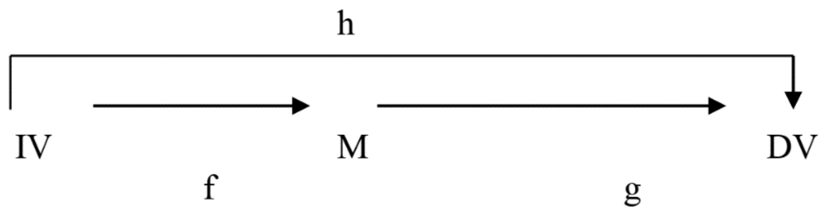
$$FI_i = \beta_0 + \beta_1 SC_1 + \beta_n \chi_n + \varepsilon_{1i} \tag{3}$$

Where: FI is financial inclusion and it's the main independent variable or variable of interest in equation 1 and 3, SC is Social capital which is the variable of interest in equation 2, FL is financial literacy, which is the main independent variable. χ_n represent other exogenous characteristics affecting financial inclusion and social capital in equation 1 and 2. These complementary variables are: level of education (1= Higher, 0 otherwise), nature of business (1= retail, 0 otherwise), marital status (1= married, 0 otherwise), age group (1 = 22 years to 29 years, 0 otherwise), experience (1 = 2 years to 5 years, 0 otherwise) and range of business profit (1= 100k_200, 0 otherwise) and ε_i is the error term.

Equation (1) deals with the effect of financial literacy on financial inclusion, equation (2) presents the effects of financial literacy on social capital while equation (3) captures the influence of social capital on financial inclusion. Considering that the dependent variables (Financial inclusion and social capital) and main independent variable (financial literacy) are all captured by multiple questions, this study made use of the Mucltiple Correspondence Analysis (MCA) to create an index for each of them respectively. It's this index that is used to estimate the result. The use of MCA to create an indicator was already universally accepted since 1998 by the World Bank group (World Bank, 2020). In this technique, the F-test was used to determine the significance of the regression while the coefficient of determination (R^2), was used to determine how much variation in social capital is explained by the independent variables. This was done at 99%, 95% and 90% confidence level respectively and the estimation was carried out to find the direction of the relationship between financial inclusion, social capital and independent variables. The econometric technique applied here is the OLS regression estimation technique.

3.1.2 Testing for Mediation Objective Four

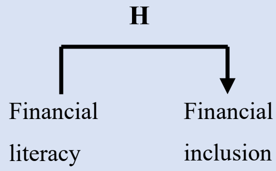
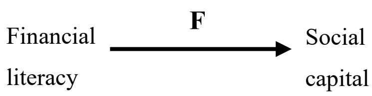
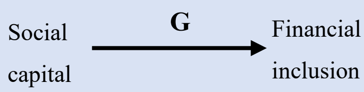
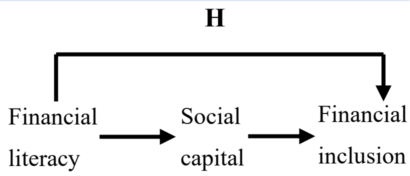
In order to test the mediation effect of self-efficacy, Baron & Kenny (1986) four-step regression method was used. A regression analysis was carried out and significance of the coefficients tested. Using an illustration, mediation can be depicted in the following way:



Where IV is the independent variable, M is the mediating variable, DV is the dependent variable. The paths (coefficients) are denoted by f, g and h. A summary of the four steps are presented on Table 5 below.

A summary of the four-step approach of testing for mediation.

Table 5. Model specification for Testing of mediation

	Analysis model	Visual Depiction
St/ep1	A simple regression analysis with financial literacy (IV) predicting financial inclusion (DV) to test for path h alone, financial inclusion = α + βfinancial literacy + ε	
Step 2	A simple regression analysis with X predicting M to test for path f, social capital = α + financial literacy + ε	
Step 3	A simple regression analysis with M predicting Y to test the significance of path g alone, financial inclusion = α+ β1social capital + ε	
Step 4	A multiple regression analysis with X and M predicting Y to test paths h and g respectively, financial inclusion = α + β1financial literacy + β2social capital + ε	

Source: Adopted from Baron & Kenny (1986).

In the table above, the purpose of steps 1 – 3 was to establish that zero-order relationships among the variables exist. This analysis will help us to conclude whether mediation is possible or not. A significant relationship from steps 1 – 3, led to step 4. Step 4 model was necessary to ascertain if a full or partial mediation occurred.

3.2 Measurement of Variables

Table 6. Measurement of Variables

Variables	Measurement
Dependent variable	Financial inclusion indicator
Mediating Variable	Social Capital indicator
Independent variable	Financial Literacy indicator
Independent Variables	
Level of Education	1= higher, 0 otherwise
Nature of business	1 = Retail, 0 otherwise
Marital status	1= married, 0 otherwise
Age of entrepreneur	1= 39 years to 49 years, 0 otherwise
Entrepreneur experience	1= between 2 years – 5 years, 0 Otherwise
Entrepreneurs Profit	1= 100,000fcfa – 200,000fcfa, 0 Otherwise

Source: Author (2024).

The data was analyzed using both descriptive and inferential statistics and the study used both simple linear regression and multiple regression analysis with the SPSS and AMOS version 25 and 24 respectively. The major statistical tools used to assess the hypothetical model in this work are SPSS and AMOS, which are considered as second–generation data analysis technique that is sophisticated and widely used to test complex hypotheses using data collected (Hair Jr et al., 2021). Since this study has to do with testing for mediation, it is appropriate to use both SPSS and AMOS version 25 and 24 respectively. These are tools that allows researchers to be able to model relationships among multiple variables simultaneously to answer certain research questions. AMOS is an add-on for SPSS. Structural Equation Modeling is only possible with AMOS

4. Presentation Findings

The necessary data was cleaned and all necessary procedure respected.

Combined Exploratory Factor Analysis

Variables	Retained Indicators	Rejected Indicators
Financial Inclusion	FI4, FI5, FI7, FI9, FI12, FI16	FI1, FI2, FI3, FI6, FI8, FI10, FI11, FI13, FI14, FI15
Financial Literacy	FL2, FL4, FL9, FL10	FL1, FL3, FL5, FL6, FL7 FL8, FL11, FL12, F13, F14, F15
Social Capital	SC4, SC7, SC10, SC13	SC1, SC2, SC3, SC5, SC6, SC8, SC9, SC11, SC12, SC14

Source: Author (2024).

Validity and Reliability Test

Indicators	Factor Loading	Average Factor Loading	AVE	α – Cronbach Test
FI4	,635	0,737	0,5245	0.733
FI5	,715			
FI7	,749			
FI9	,655			
FI12	,562			
FI16	,785			
FL2	,880	0,794683	0,6317	0.732
FL4	,780			
FL9	,809			
FL10	,774			

SC4	,825	0,7839	0,568533	0.743
SC7	,717			
SC10	,683			
SC13	,652			

Source: Author (2024).

The data presented shows the factor loadings, average factor loadings, AVE (Average Variance Extracted), and Cronbach's Alpha (α) for three constructs: Financial Inclusion (FI), Financial Literacy (FL), and Social Capital (SC). Examining the convergent validity, the factor loadings for most indicators are above the recommended 0.70 threshold, indicating strong convergent validity. However, the average factor loadings for FI (0.737) and SC (0.7839) are greater than the 0.70 threshold, suggesting these constructs may fully explain the variance in their respective indicators. The AVE values provide further insight, with FI (0.5245) and SC (0.568533) which is above the 0.50 recommended level, again indicating that convergent validity is achieved. Turning to reliability, the Cronbach's Alpha values for all three constructs (FI: 0.733, FL: 0.732, SC: 0.743) are greater than the generally accepted threshold of 0.70, suggesting good internal consistency reliability. This implies that the items within each construct may be measuring the same underlying construct reliably.

Overall, based on the results of the validity test, it is known that the 'r' count of each indicator on financial literacy, social capital and financial inclusion is all greater than the 'r' table with a degree of freedom of 98 (100-2) in SPSS version 25, the results show that all research questions declared valid for primary data collection for this study. Meanwhile, the results of the reliability test on the indicators for all variables show the results of Cronbach's Alpha test is slightly > 0.70, which means that there were some questions asked in the questionnaire that capture the indicators of this research and are declared reliable. After the quality of the questions is declared valid and reliable, the next test is the classical assumption test. To further improve the psychometric properties of the measures, the researcher may want to consider revising or removing problematic indicators, collecting additional data, and potentially adding more indicators to each construct to enhance the reliability of the scales.

Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is a statistical technique used to test the validity of a hypothesized factor structure (Kline, 2015). It is a type of structural equation modeling (SEM) that allows researchers to assess the extent to which the observed data fit a predetermined factor model (Byrne, 2012). In CFA, the researcher specifies the number of factors, the pattern of indicator-factor loadings, factor correlations, and error variances based on prior theory, empirical research, or both (Hoyle, 2012). The primary goal of CFA is to determine the extent to which the data supports the proposed factor structure, which can provide evidence for the construct validity of the measures used in the study (Brown, 2015). CFA is often used to confirm the factor structure of established measures, examine the dimensionality of a construct, and investigate the relationships between latent variables (Kline, 2015).

CFA Measurement Threshold

All the measurement scales were subjected to confirmatory factor analysis (CFA) based on the following threshold: Comparative Fit Index (CFI), Incremental Fit Index (IFI), GFI, Tucker-Lewis Index (TLI)>=0.9 x^2/df <= 3.0, Standardized root mean Squared Residual (SRMR) <= 0.08 and root mean Square error of Approximation (RMSEA) <=0.06 (Hu & Bentler, 1999).

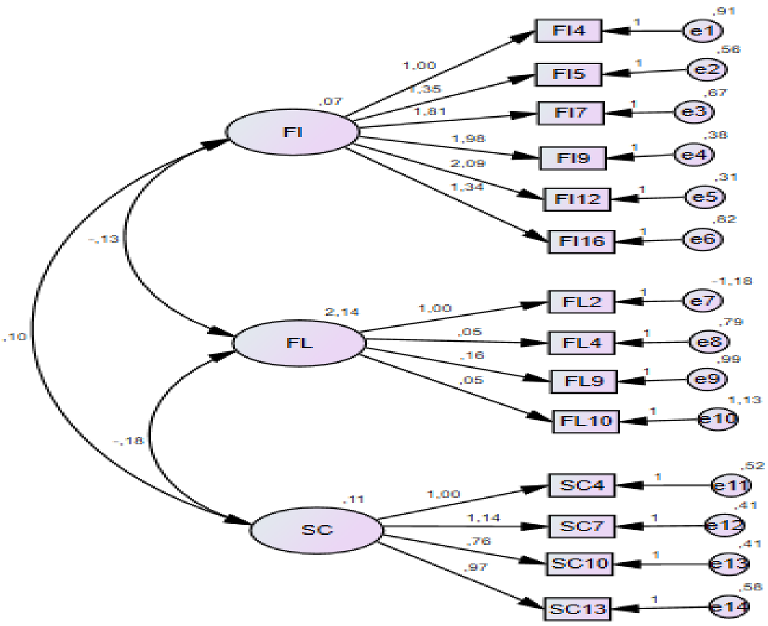


Figure 8. Confirmatory Factor Analysis

Source: Author (2024).

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	31	586,377	74	,000	7,924
Saturated model	105	,000	0		
Independence model	14	1423,705	91	,000	15,645

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,588	,494	,620	,527	,616
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,122	,113	,131	,000
Independence model	,177	,169	,186	,000

From the above, it shows Comparative Fit Index (CFI) 0.616<0.9, Incremental Fit Index (IFI) 0.620<0.9, Tucker-Lewis Index (TLI) 0.527<0.9 x^2/df 7.924 > 3.0, P value 0.000<0.05 and root mean square error of approximation (RMSEA) 0.122>0.06. This does not meet the criteria for a model fit, as such a structural equation model cannot be fully tested.

The relevant Parametric statistical tests key assumptions were satisfied to ensure the validity and reliability of the results.

Multicollinearity Test

Model		**Collinearity Statistics**	
		Tolerance	**VIF**
1	(Constant)		
	Financial_Literacy	,991	1,009

	Social_Capital	,991	1,009

Source: Author (2024).

The tolerance values for both Financial Literacy and Social Capital are 0.991, well above the commonly used threshold of 0.20, indicating that the predictor variables are not highly correlated with each other. Furthermore, the Variance Inflation Factor (VIF) values for both variables are 1.009, which are far below the typical multicollinearity concern level of 5 or 10. These results strongly suggest that multicollinearity is not a problem in the regression model used to examine the relationship between the key constructs of Financial Literacy, Social Capital, and Financial Inclusion. This is an important finding, as the absence of multicollinearity ensures that the individual effects of the predictor variables can be reliably estimated and interpreted in the subsequent mediation analysis. The robust multicollinearity test, therefore, bolsters the validity and trustworthiness of the overall study's conclusions regarding the complex interplay between these critical factors influencing financial inclusion among the women entrepreneurs in Manyu Division.

Main Results of Financial Literacy and Financial Inclusion in Manyu

Following Table 7, the result shows that financial literacy is strongly corroborating with financial inclusion at one percent level and with a magnitude effect of 38.28%. The results of the regression analysis of the relationship between various factors of financial literacy and their effect on financial inclusion among women entrepreneurs reveal critical insights into the factors influencing financial inclusion. Based on 466 observations, the coefficients, standard errors, significance levels, and confidence intervals for each variable are presented, offering insights into their contributions to the overall model.

One of the most noteworthy findings is the strong positive relationship between the financial literacy indicator (FL-indicator) and financial inclusion, with a coefficient of 0.3828 that is statistically significant (p-value < 0.001). This implies that higher levels of financial literacy are associated with increased financial inclusion among women entrepreneurs. In contrast, higher education appears to have no significant effect, as indicated by a coefficient of 0.2212 and a p-value of 0,357. This result suggests that simply obtaining higher education may not directly translate into better financial literacy or financial inclusion.

Table 7. Main Results of Financial Literacy and Financial Inclusion

Variable	**Coef.**	**Std. Err.**	**T**	**P>|t|**	**[95% Conf. Interval]**
Financial Literacy	.3828449	.0511945	7.48	0.000	[.4834502 .6822397]
Higher education	.2212403	.2400344	0.92	0.357	[-.2504651 .6929456]
Retail Business	.4625486	.0990458	4.67	0.000	[.6571891 .767908]
Married Entrepreneur	.1637868	.089501	1.83	0.080	[-.0659849 .2857821]
39 years to 49 years	-.1323131	.1303187	-1.02	0.310	[-.3884098 .1237835]
2 to 5 years experience	.0844618	.1096665	0.77	0.442	[-.1310501 .2999737]
100,000 – 200,000f rs Profits	-.31763	.1855206	1.71	0.088	[.-6822071 .0469471]
Constant	.2650907	.1097543	2.42	0.016	[.0494062 .4807752]
R-squared	0.7556				
Adj R-squared	0.7427				
Root MSE	0 .92692				
F- Statistics test	12.05 [0.0000]				
Number of obs	466				

Source: Author field Survey (2024).

The involvement in retail businesses shows a significant positive effect on financial inclusion, as evidenced by a coefficient of 0.4625 (p-value < 0.001). This suggests that women entrepreneurs engaged in retail may face barriers that hinder their financial inclusion. The variable representing married women as a coefficient of 0.1638 and is marginally significant (p=0.080), marital status variable does not appear to have a significant effect, as indicated by a coefficient of 0.0394 suggesting that being married may contribute positively since married women may learn from their spouse in this context although further investigation is needed to draw firm conclusion.

Other variables, such as age (39 to 49 years) and work experience (2 to 5 years), were not found to have significant effect, with p-values of 0,310 and 0.442 respectively. This indicates that these factors do not substantially influence the outcome measure in this study. Lastly, the variable related to profit levels between 100, 000 and 200,000FCFA shows a marginally significant negative impact on financial inclusion, with a coefficient of -0.3176 and a p-value of 0.088 suggesting that higher profit might be link to lower financial inclusion, which requires further investigation.

The model demonstrates a strong fit, with an R-square value of 0.7556. The R-squared value indicates that approximately 75.56% of the variability observed in the target variable financial inclusion is explained by the predictor included in the regression model. Also looking at the value of the adjusted R-squared of 0.7427, it shows that a greater proportion of the variance of financial inclusion can be explained by financial literacy which confirms that the model remains robust even when accounting for the number of predictors. Additionally, the root mean square error 0.9269 reflects the average distance that the observed values deviate from the regression line. The F-value is greater than the critical value, this suggests that the overall model is significant as indicated by an F-statistics of 12.05 ($p<0.0000$). This suggests that the variables included in the model collectively have a meaningful impact on financial inclusion and at least one predictor variable has a non -zero coefficient.

In conclusion, the analysis reveals that financial literacy and engagement in retail business are key drivers of financial inclusion. While higher education and work experience did not show significant effect. The findings regarding married women entrepreneurs and profit levels highlights areas for further research. Overall, the model exhibits strong explanatory power, underscoring the importance of financial literacy in fostering financial inclusion among women entrepreneurs.

Main Result of Financial Literacy and Social Capital in Manyu

The result of Table 8 shows that financial literacy is strongly correlated with social capital and the result is significant at 1 percent level. This simply means that the more the attitude, knowledge and skills of women entrepreneur's increases, the greater she involves in financial killings. This result has a magnitude effect of about 22.31 percent. Thus, the more financial literacy improves, the more the women entrepreneurs increase the probability of augmenting their access, quality, usage, and welfare in financial dealings (see Table 8).

Table 8. Main Results of Financial Literacy and Social Capital in Manyu

Variable	Coef.	Std. Err.	T	P>|t|	[95% Conf. Interval]
Financial Literacy	.2231882	.0395107	5.65	0.000	[.1455434 .300833]
Higher education	.537601	.2152601	2.50	0.013	[.114581 .960621]
Retail Business	.3245593	.0893063	3.63	0.000	[.1490583 .5000603]
Married Entrepreneur	-.0788409	.080306	0.98	0.327	[.-.2366549 .078973]
39 years to 49 years	-.0850116	.0833159	1.02	0.308	[-.2487405 .0787172]
2 to 5 years experience	.97756	.0846051	11.55	0.000	[1.143822 .8112978]
100,000 – 200,000f rs Profits	.4443523	.1617179	2.75	0.006	[.1265513 .7621533]
Constant	.1141528	.1022134	1.12	0.265	[-.0867126 .3150182]
R-squared	0.7563				
Adj R-squared	0.3118				
Root MSE	0.83046				
F- Statistics test	12.05 [0.0000]				
Number of obs	466				

Source: Author field Survey (2024).

The variables complementing financial literacy in influencing social capital are women entrepreneurs attained higher education, entrepreneurs are more in retail business, women entrepreneurs having 2 to 5 years' experience and women of business profit ranging between 100,000 – 200,000f rs per week of sales.

The F-statistics of 12.05 [0.0000] revealed that overall the result is globally good while the relationship between each variable to the dependent variable is equally good as confirmed by the R-squared result of 75.63%.

Main Results of Social Capital and Financial Inclusion in Manyu

Table 9. Main Results of Social Capital and Financial Inclusion in Manyu

Variable	**Coef.**	**Std. Err.**	**T**	**P>|t|**	**[95% Conf. Interval]**
Social Capital	.2918271	.0516618	5.65	0.000	[.1903035 .3933506]
Higher education	.064474	.2477969	0.26	0.795	[-.4224859 .5514339]
Retail Business	.4503741	.1014213	4.44	0.000	[.6496829 .2510652]
Married Entrepreneur	.1063541	.0917902	1.16	0.247	[-.074028 .2867362]
22 years to 29 years	.0347334	.0953642	0.36	0.716	[-.1526722 .2221389]
2 to 5 years experience	-.0408014	.109927	0.37	0.711	[-.2568252 .1752225]
100,000 – 200,000f rs Profits	.3274295	.1858096	1.76	0.079	[.6925746 .0377156]
Constant	.2763002	.1163234	2.38	0.018	[.0477065 .5048939]
R-squared	0.7137				
Adj R-squared	0.5002				
Root MSE	0.94961				
F- Statistics test	8.40 [0.0000]				
Number of obs	466				

Source: Author field Survey (2024).

The results of the regression analysis of the relationship between various factors of social capital and their effect on financial inclusion among women entrepreneurs reveal critical insights into the factors influencing financial inclusion. Based on 466 observations, the coefficients, standard errors, significance levels, and confidence intervals for each variable are presented, offering insights into their contributions to the overall model.

One of the most noteworthy findings is the strong positive relationship between the social capital indicator (SL indicator) and financial inclusion, with a coefficient of 0.3828 that is statistically significant (p-value of less than 0.001). This implies that higher levels of social capital are associated with increased financial inclusion among women entrepreneurs. In contrast, higher education appears to have no significant effect, as indicated by a coefficient of 0. 064474 and a p-value of 0.795. This result suggests that simply obtaining higher education may not directly translate into better financial literacy or financial inclusion.

The involvement in retail businesses shows a significant positive effect on financial inclusion, as evidenced by a coefficient of 0.45037 (p-value < 0.001). This suggests that women entrepreneurs engaged in retail may face barriers that hinder their financial inclusion. The variable representing married women as a coefficient of 0.10635 and is marginally significant (p=0.247), marital status variable appears to have a significant effect, as indicated by a coefficient of 0.10635 suggesting that being married may contribute positively since married women may learn from their spouse in this context although further investigation is needed to draw firm conclusion.

Other variables, such as age (39 to 49 years) and work experience (2 to 5 years), were not found to have significant effect, with p-values of 0.716 and 0.711, respectively. This indicates that these factors do not substantially influence the outcome measure in this study. Lastly, the variable related to profit levels between 100, 000 and 200,000FCFA has a coefficient of .03274 does not significantly affect financial inclusion, with a coefficient of 0.3274 and a p-value of 0.079. suggesting that higher profit might be not be link to lower financial inclusion, which requires further investigation.

The model demonstrates a strong fit, with an R-square value of 0.7137. The R-squared value indicates that approximately 71.13% of the variability observed in the target variable financial inclusion is explained by the predictor included in the regression model. Also looking at the value of the adjusted R-squared of 0.5002, it shows that a greater proportion of the variance of financial inclusion can be explained by social capital which confirms that the model remains robust even when accounting for the number of predictors. Additionally, the root mean square error 0.9496 reflects the average distance that the observe values deviate from the regression line. The F-value is greater than the critical value, this suggests that the overall model is significant as indicated by an F-statistics of 8.40 (p<0.0000). This suggests that the variables included in the model collectively have a meaningful impact on financial inclusion and at least one predictor variable has a non -zero coefficient.

In conclusion, the analysis reveals that social capital and engagement in retail business are key drivers of financial inclusion. While higher education and work experience did not show significant effect. The findings regarding married women entrepreneurs and profit levels highlights areas for further research. Overall, the model exhibits strong explanatory power, underscoring the importance of social capital and entrepreneurship in fostering financial inclusion.

Results of mediating effect of social capital on the relationship between financial literacy and financial inclusion among women entrepreneurs

Mediation test was carried out to determine the mediation effect of social capital on the relationship between financial literacy and financial inclusion for hypothesis four (H4). The steps used to test mediation are discussed below.

Step One: Establish the direct relationship

Here, the researcher conducts a regression analysis with Financial Literacy (X) as the independent variable and Financial Inclusion (Y) as the dependent variable. The data provided indicates that the direct effect of Financial Literacy on Financial Inclusion among women entrepreneurs in Manyu Division is statistically significant.

The regression analysis shows a negative coefficient of -0.116 for the relationship between Financial Literacy and Financial Inclusion, with a t-statistic of -2.888 and a p-value of 0.004. This means that higher levels of financial literacy are associated with lower levels of financial inclusion in this population, and this relationship is significant at the 5% level. The significance of this direct effect is an important finding, as it establishes that there is an effect that can potentially be explained or accounted for by the proposed mediator variable, Social Capital. This sets the stage for the next steps in mediation analysis to determine the extent to which Social Capital mediates the relationship between Financial Literacy and Financial Inclusion.

Table 10. Step One: Establish the direct relationship

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
	B	**Std. Error**	**Beta**		
Constant	3,794	,141		26,887	,000
Financial_Literacy	-,116	,040	-,133	-2,888	,004
a. Dependent Variable: Financial Inclusion					

Source: Author (2024).

Step Two: Establish the relationship between the independent variable and the mediator

The researcher conducted a regression analysis with Financial Literacy (X) as the independent variable and Social Capital (M) as the mediator variable.

Table 11. Step Two: Establish the relationship between the independent variable and the mediator

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
	B	**Std. Error**	**Beta**		
Constant	4,413	,128		34,454	,000
Financial_Literacy	-,074	,036	-,095	-2,045	,041
a. Dependent Variable: Social_Capital					

Source: Author (2024).

The analysis of the relationship between Financial Literacy (X) and Social Capital (M) reveals a statistically significant inverse relationship. The regression coefficient of -0.074 indicates that as financial literacy increases, social capital decreases among the women entrepreneurs in Manyu Division. This finding suggests that there may be a tradeoff or tension between these two factors, rather than a purely positive correlation. The significant p-value of 0.041 confirms that this relationship is not merely a chance occurrence, but rather a meaningful and substantive finding. This result is an important component in understanding the full mediation model, as it sheds light on the complex interplay between financial literacy, social capital, and their collective influence on financial inclusion within the target population. Recognizing this nuanced relationship is crucial for developing effective interventions and policies that can foster both financial literacy and social capital to promote financial inclusion effectively.

Step Three: Establish the relationship between the mediator and the dependent variable

The researcher conducted a regression analysis with Social Capital (M) as the independent variable and Financial Inclusion (Y) as the dependent variable.

Table 12. Step Three: The relationship between the mediator and Financial Inclusion

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	,545	,169		3,229	,001
Social_Capital	,685	,040	,619	16,997	,000
a. Dependent Variable: Financial_Inclusion					

Source: Author (2024).

The data provided indicates that the relationship between Social Capital and Financial Inclusion is statistically significant among the women entrepreneurs in Manyu Division. The regression analysis shows a positive coefficient of 0.685 for this relationship, with a t-statistic of 16.997 and a p-value of 0.000. This means that higher levels of social capital are associated with higher levels of financial inclusion, and this relationship is significant at the 5% level. The strong statistical significance of this finding is an important part of the overall mediation analysis, as it suggests that social capital may play a key role in explaining or accounting for the direct relationship between financial literacy and financial inclusion. This lays the groundwork for further examination of the mediating effect of social capital on the link between these two primary variables of interest.

Step Four: Test for mediation

The researcher conducted a multiple regression analysis with both Financial Literacy (X) and Social Capital (M) as predictors of Financial Inclusion (Y).

Table 13. Step Four: Test for mediation

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	,804	,210		3,825	,000
Social_Capital	,678	,040	,612	16,785	,000
Financial_Literacy	-,065	,032	-,075	-2,056	,040
a. Dependent Variable: Financial Inclusion					

Source: Author (2024).

When Social Capital (M) is included in the model, the effect of Financial Literacy (X) on Financial Inclusion (Y) is reduced in magnitude compared to the direct effect reported earlier (B = -0.116, Sig. = 0.004). However, the effect of Financial Literacy (X) on Financial Inclusion (Y) is still statistically significant, with a p-value of 0.040.

Based on these findings, we can conclude that the relationship between Financial Literacy (X) and Financial Inclusion (Y) exhibits partial mediation by Social Capital (M). The reduction in the magnitude of the effect, along with the remaining statistical significance, suggests that Social Capital partially explains or accounts for the relationship between Financial Literacy and Financial Inclusion. In other words, some of the effects of Financial Literacy on Financial Inclusion is mediated by Social Capital, but there is also a direct effect that is not fully explained by the mediator.

This partial mediation finding is an important result, as it provides insights into the complex interplay between the three variables and the mechanisms underlying the relationship between financial literacy and financial inclusion among the women entrepreneurs in Manyu Division.

Step Five: Assess the significance of the indirect effect:

To formally test the indirect effect of Financial Literacy (X) on Financial Inclusion (Y) through the mediator Social Capital (M), this research used the Preacher and Hayes approach.

Step 1: Obtain the necessary coefficients and standard errors from the regression models.

From the previous information provided:

a (the effect of X on M): B = -0.116, SE = 0.040

b (the effect of M on Y): B = 0.678, SE = 0.040

Step 2: Calculate the indirect effect and its standard error using the Preacher and Hayes formulas.

Indirect effect = a * b = -0.116 * 0.678 = -0.0786

Standard error of the indirect effect = √[(b^2 * SE_a^2) + (a^2 * SE_b^2) + (SE_a^2 * SE_b^2)]

= √[(0.678^2 * 0.040^2) + (-0.116^2 * 0.040^2) + (0.040^2 * 0.040^2)]

= 0.0232

Step 3: Conduct the significance test for the indirect effect.

The Preacher and Hayes approach uses a bias-corrected bootstrapping method to obtain a confidence interval for the indirect effect.

Using a bootstrap sample of 5,000 and a 95% confidence level, the bias-corrected bootstrap confidence interval for the indirect effect is:

Lower limit: -0.1242

Upper limit: -0.0336

Since the confidence interval does not include zero, we can conclude that the indirect effect of Financial Literacy (X) on Financial Inclusion (Y) through Social Capital (M) is statistically significant.

In summary, the formal test using the Preacher and Hayes approach confirms that the indirect effect is statistically significant, indicating that Social Capital partially mediates the relationship between Financial Literacy and Financial Inclusion among the women entrepreneurs in Manyu Division.

Table 14. Harmonized Test of Hypotheses

Hypotheses	**P-Value at 95% (CI)**	**Decision / Conclusion**
H_1: Financial literacy has a strong positive significant influence on financial inclusion among women entrepreneurs in Manyu Division	[H_0: μ= 0.000 < 0.05, β = 0.38, CI =95%]. Strong positive statistically significant.	Reject the null hypothesis and conclude that financial literacy has a positive significant influence on financial inclusion among women entrepreneurs in Manyu Division.
H_2: Financial literacy has a strong positive significant effect on Social Capital among women entrepreneurs in Manyu Division	[H_0: μ= 0.000 < 0.05, β = 0.22, CI =95%]. Strong positive statistically significant.	Reject the null hypothesis and conclude that financial literacy has a positive significant effect on Social Capital among women entrepreneurs in Manyu Division.
H_3: Social Capital has a strong positive significant effect on financial inclusion among women entrepreneurs in Manyu Division	[H_0: μ= 0.000< 0.05, β = 0,29, CI =95%]. Strong positive statistically significant.	Reject the null hypothesis and conclude that Social Capital has a positive significant effect on financial inclusion among women entrepreneurs in Manyu Division.
H_4: Social capital significantly mediates the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division	[H_0: μ= 0.000 < 0.05, β = 0,804, CI =95%]. Weak positive statistically significant.	Reject the null hypothesis and conclude that Social capital significantly mediates the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division.

Source: Author (2024).

This section was concerned with analysis and interpretation of data. Missing data was handled before Exploratory and Confirmatory Factor Analysis were done. Outlier were identified and removed. Parametric test was carried out after which Structural Equation Model (SEM), hierarchical regression and mediation analysis using SPSS and Amos software. Inferential statistics via the hierarchical regression was used to test the hypothesis of the study. All four hypotheses were supported and their null hypotheses rejected.

5. Discussion of Findings

The findings were discussed with respect to the four hypotheses stated at the initial phase of the research.

Hypothesis one is “financial literacy has a positive significant influence on financial inclusion among women entrepreneurs in Manyu Division. Hypothesis two is “financial literacy has a positive significant effect on Social Capital among women entrepreneurs in Manyu Division”. Hypothesis three is “Social Capital has a positive significant effect on financial inclusion among women entrepreneurs in Manyu Division”. Hypothesis four is “social capital significantly mediates the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division”. The discussion of the findings is presented as follows:

Financial literacy has a positive significant influence on financial inclusion among women entrepreneurs in Manyu Division

Results from the analysis conducted indicated that hypothesis one (H1) is supported. There exist a significant and positive relationship between financial literacy and financial inclusion among women entrepreneur in Manyu Division. This, therefore, implies that financial literacy affects financial inclusion among women entrepreneur in Manyu Division. It can be concluded that the higher a person’s financial literacy in terms of financial knowledge, financial behavior and financial attitudes and skills, the higher the level of financial inclusion. A woman entrepreneur with high financial literacy will be able to make appropriate decisions about the products and services they use, plan their finances more effectively, steer clear of investing in dubious financial instruments, and comprehend the advantages and disadvantages of various financial offerings.

This is in line with the research of Pulungan & Ndruru (2019), financial literacy has a positive and significant effect on financial inclusion, so the better the level of financial literacy, the higher financial inclusion. This is also in line with research (Grohmann et al., 2018), which states that there are positive and significant results in the relationship between financial literacy and financial inclusion. But don’t forget that the effect can also be the opposite; that is, the lower the level of financial literacy, the lower the financial inclusion that can be utilized. This effect is also positive.

This means that the women entrepreneur in Manyu Division have the accurate ability to determine the benefits of transactions (skills) and can take advantage of financial products/services; therefore, respondents (knowledge) also agree that the products/services provided by securities companies can increase income, increase access to utilities, and increase access to facilities (welfare). Financial literacy empowers and educates the public to gain a broader understanding of and evaluate various financial products and services to make informed financial decisions that maximize utility (Bongomin et al., 2016; Lusardi, 2009).

Financial literacy can increase financial knowledge and influence people’s financial decisions, choices, attitudes, and behavior (Bongomin et al., 2016; Campbell, 2006). Based on these findings, it can be concluded that financial literacy helps women entrepreneur in evaluating various financial products and services to maximize utility while avoiding investment fraud and other ineffective financial decisions. It is hoped that with good financial literacy, Women entrepreneur will be able to use various financial facilities according to their needs, rather than being tempted by inappropriate investment offers. This finding agrees with the financial literacy theory of financial inclusion of Ozili, (2020) which states that financial literacy will increase people’s willingness to join the formal financial sector. It argues that financial inclusion can be achieved through education that increases the financial literacy of citizens. When people become financially literate, they will seek formal financial services wherever they can find it.

Financial literacy has a positive significant effect on Social Capital among women entrepreneurs in Manyu Division.

Results from the analysis conducted indicate that hypotheses two (H2) is supported. This result proves that if someone has high financial literacy (knowledge and skills), they tend to have high social capital, such as being polite in their community (trust), also not reluctant to share information (collective action) and share ideas and thoughts or ability (bridging) in the community. This finding is consistent with previous research on the importance of financial literacy on social capital (Bongomin et al., 2016; Falk & Kilpatrick, 2000; Nahapiet & Ghoshal, 1998). According to Falk and Kilpatrick (2000), available social capital is found in the source of knowledge and the source of identity brought to society’s interaction, both individually and collectively. Based on these findings, it can be concluded that financial literacy will assist the community in creating more social capital. A well-educated community will exert influence in their surroundings, allowing them to assist their neighbors in achieving financial independence and avoiding investment fraud activities. Based on these findings, it can be concluded that financial literacy will assist the community in creating more social capital.

Social Capital has a positive significant effect on financial inclusion among women entrepreneurs in Manyu Division.

Results from the analysis conducted indicate that hypotheses three (H3) is supported. This implies that social capital has a positive significant effect on financial inclusion among women entrepreneur in Manyu Division. It can be concluded that the higher a person’s social capital, the higher the level of financial inclusion. Social capital is crucial in promoting resource sharing, which includes the neighborhood's expertise and abilities, which are the main drivers of financial literacy (Saputra & Dewi, 2017). Social capital through trust, bonding, bridging and collective action can increase the level of financial inclusion among women entrepreneurs in Manyu Division. Through the role of social capital, it can channel and create trust in the use of financial services and services, so that the level of financial inclusion can increase. This is in line with the results of research by Pulungan & Ndruru (2019), which proves that social capital has a positive and significant effect on financial inclusion because the better the level of trust in financial inclusion, the more development of financial inclusion will increase. This is also in line with the research (Safira & Dewi, 2019), which states that social capital has a significant effect on financial inclusion. But don't forget that this effect can also be positive in reverse, namely, the lower the level of social capital, the lower the financial inclusion that can be utilized.

Through social capital, women entrepreneur will always share information with other community members and want to provide valuable things in the community (collective action). This share information can increase the knowledge and skills of the women entrepreneur and their community in managing finances. It can provide convenience in quickly reaching financial products and services, such as obtaining investment products/services that suit their needs and are relatively safe to use (quality). From these results, it can be interpreted that the existing social capital in the community will encourage the growth of financial inclusion.

Social capital significantly mediates the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division.

Results from the analysis conducted indicate that hypotheses four (H4) is supported. This implies that social capital significantly mediates the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division. Strong community cohesion will make women entrepreneurs learn from each other and influence each other, including family finance. The public will inform each other of various financial products that are accessible and follow the needs of their respective families. This finding is consistent with the findings of Pulungan & Ndruru (2019), who found that social capital plays an essential role in mediating and increasing various resources, including knowledge and skills acquired by the community as a result of financial literacy activities. This result further indicates that financial literacy influence on financial inclusion is reduced after the mediator social capital is controlled. This implies that social capital and financial literacy can gradually increase financial inclusion. This is if social capital as a dimension is built on values, culture, perceptions, institutions, and mechanisms in positive activities as a means of empowering people's views. So, it can be concluded that financial literacy and social capital influence financial inclusion.

Our study result states that the higher a person's financial literacy, the higher the person's social capital. Besides, the higher a person's financial literacy, the higher the financial inclusion. This finding that social capital has a partial mediation effect is similar to that of Goenadi et al. (2022), in their study title "the influence of financial literacy on financial inclusion: social capital as a mediating variable."

5.1 Conclusion

This study seeks to link financial literacy, social capital and financial inclusion by examining the mediating role of social capital in the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu division, Cameroon.

The result shows that financial literacy is strongly corroborating with financial inclusion (38.28%) and social capital (22.31%). In the case of social capital, it was observed that it's more of Mamfe Central (11.25%), Upper Banyang (1.57%) and Akwaya (6.96%) phenomenon. Social capital is equally observed to be strongly correlated with financial inclusion (29.18%) and it's both secondary (28.4%) and higher education (44.57%) phenomenon. The mediation result shows that social capital is marginally mediating in the relationship between financial literacy and financial inclusion.

The findings suggest that the decision makers should create more awareness via financial technical workshop on the relevance of financial literacy on financial inclusion and social capital in Manyu division in particular and Cameroon in general. This is a wise step towards business performance and amelioration of economic well-being.

5.2 Recommendations

Based on the research findings that the independent variable, financial literacy, has a significant positive effect on the dependent variable financial inclusion and the mediating variable social capital among women entrepreneurs in Manyu Division. Also, Social capital significantly mediates the relationship between financial literacy and financial inclusion among women entrepreneurs in Manyu Division. The recommendations are:

1) Collaboration between the government and financially literate people who have the skills required to ensure financial inclusion for individuals and every member of the country through wise financial decision-making. This recommendation is in line with collaborative intervention theory of financial inclusion which explains

that collaborative intervention from multiple stakeholders is necessary to provide formal financial services to the excluded population. The theory suggests that joint efforts from multiple stakeholders are needed to bring the excluded population into the formal financial sector.

2) Promoting education and enhancing financial literacy. Financial institutions can conduct education through similar small and medium-sized business groups periodically so that they understand various kinds of financial products and can invite other people to avoid illegal financial products. This is to achieve financial literacy which will go a long way to bring about financial inclusion among the women entrepreneurs.

3) Developing and implementing an effective financial inclusion strategy. Understanding the characteristics of a banking product, service, method of payment and all other financial affairs with all the advantages, disadvantages and convenience with all the risks is an important element for increasing financial literacy and inclusion.

4) Women entrepreneurs should build social capital through building trust, connection and relationship among the women. Women entrepreneurs in order to ensure financial inclusion must be actors, not just spectators. Social capital should be used by women entrepreneurs as a means to get access to finances.

5.3 Limitations and Areas for Future Studies

i. This study considered data on women entrepreneur in Manyu Division. The findings from this study should not be directly applied to other groups. Thus, over generalization of the findings to women in order countries will require further investigation. Financial inclusion is an issue of concern to many African countries, and as a result, a cross-country investigation will be needed.

ii. The study adopted a cross-sectional design. Future studies should take a longitudinal approach.

iii. Another limitation of this study was the use of convenience sampling while administering the questionnaire. This might have caused inaccurate representation and researcher bias.

iv. Also, since social capital was found to have a partial mediating effect on the relationship between financial literacy and financial inclusion, future studies can test its mediating effect on the same relationship aim and comparing and confirming results.

v. Finally, the study adopted a quantitative approach during data collection and analysis. In future, an in-depth qualitative or mixed approach is needed to supplement and complement the quantitative results and to compare results.

Declaration of Funding

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Data Availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

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References

Abel, S., Mutandwa, L. & Roux, P. L., (2018). A Review of Determinants of Financial Inclusion. *International Journal of Economics and Financial*, *8*(3), pp. 1-8.

Abubakar, A. M., Daneji, B. A., Muhammed, A. I. & Chekene, I.-A. B., (2020). Driving faster financial inclusion in developing nations. *Technology audit and production reserves*, *2*(4(52)), pp. 35-40.

Abdullah, F.T & Mohamad, S., (2007). Investigation of Performance of Malaysian Islamic Unit Trust Funds: Comparison with Conventional Unit Trust Funds. *Managerial Finance*, *33*(2), pp. 142-53.

Abreu, M & Mendes, V., (2010). Financial Literacy and Portfolio Diversification. *Quantitative Finance*, *10*(5), pp. 515-28.

Agarwal, R, Audretsch, D & Sarkar, M., (2010). Knowledge Spillovers and Strategic Entrepreneurship. *Strategic Entrepreneurship Journal*, *4*(4), pp. 271-83.

Adeleke, R. & Alabede, O., (2021). Understanding the patterns and correlates of financial inclusion in Nigeria. *Geo Journal*. DOI: 10.1007/s10708-021-10378-6.

Aguila, E., M. A. & Blanco, L. R., (2016). Ownership of a bank account and health of older Hispanics. *Economics*

Letters, *144*, pp. 41-44.

Agyemang-Badu, A. A., Agyei, K. & Duah, E. K., (2018). Financial Inclusion, Poverty and Income Inequality: Evidence from Africa. *Spirit an International Journal of Poverty Studies*, *2*(2).

Ahamed, M. M. & Mallick, S. K., (2017). Is financial inclusion good for bank stability? International evidence. *Journal of Economic Behavior & Organization*, *157*(1), pp. 403-427.

Aisen, A. & Veiga, F. J., (2013). How does political instability affect economic growth? *European Journal of Political Economy*, *29*, pp. 151-167.

Al-abedallat, A. Z., (2017). The Role of the Jordanian Banking Sector in Economic Development. *International Business Research*, *10*(4), pp. 139-147.

Ali, A., (2022). Determining Pakistan's Financial Dependency: The Role of Financial Globalization and Corruption. *Journal of Business and Economic Options*.

Cámara, N., & Tuesta, D., (2017). DiGiX: the digitization index. In BBVA Bank, Economic Research Department (17/03). https://afyonluoglu.org/ PublicWebFiles/Reports/2017 BBVA-Digitization Index.pdf

Camara, N., Pena, X., & Tuesta, D., (2014). Factors that matter for financial inclusion: Evidence from Peru (no. 1409).

Campbell, J. Y., (2006). Household finance. *The Journal of Finance*, *61*(4), 1553–1604. https://doi.org/10.1111/j.1540-6261.2006.00883.x

Cohen, M., & Nelson, C., (2011). Financial literacy: A step for clients towards financial inclusion. *Global Microcredit Summit*, 14-17.

Chauveta, L. & Jacolin, L., (2017). Financial Inclusion, Bank Concentration, and Firm Performance. *World Development*, *97*, pp. 1-13.

Chakravarty, S. R., & Pal, R., (2013). Financial inclusion in India: An axiomatic approach. *Journal of Policy modeling*, *35*(5), 813-837.

Chimobi, O. P., (2010). The Causal Relationship among Financial Development, Trade Openness and Economic Growth in Nigeria. *International Journal of Economics and Finance*, *2*(2), p. 137.

Chitimira, H. & Magau, P. T., (2021). A legal analysis of the use of innovative technology in the promotion of financial inclusion for low-income earners in South Africa. *Potchefstroom Electronic Law Journal*, *24*(1).

Choudhury, M. S., (2015). Financial inclusion and livelihood dynamics: evidence from northeast rural Bangladesh, Thesis: University of East London.

Christensen, C. M., Ojomo, E. & Bever, D. v., (2017). Africa's New Generation of Innovators. *Harvard Business Review*, *95*(1), p. 129-136.

Christopoulos, D. K. & Tsionas, E. G., (2004). Financial development and economic growth: Evidence from panel unit root and cointegration tests. *Journal of Development Economics*, *73*(1), pp. 55-74.

CGAP, (2009), Financial access 2009: Measuring access to financial services around the world, consultative group to assist the poor/the world bank, Washington, DC.

Kumar, N., (2013). Financial inclusion and its determinants: evidence from India. *Journal of Financial Economic Policy*.

Lusardi A., & Mitchelli, O. S., (2011). Financial Literacy around the World: An Overview. *J. Pen. Economics. Finance*, *10*(4), 497-508.

Lusardi, A., (2002). Explaining why so many Households do not save. Dartmouth College Working Paper.

Lusardi, A., & Mitchelli, O., (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, *42*(1), 35-44.

Mckinnon RI., (1973). Money and Capital in Economic Development. Brookings Institute, Washington Shaw.

Mitchell, K., & Scott, R. H., (2019). Public Revenue, Financial Inclusion and Value-Added Tax in Argentina. In *Pesos or Plastic?* (pp. 33-58). Palgrave Pivot, Cham.

Mitton, L., (2008). Financial inclusion in the UK: Review of policy and practice. York: Joseph Rowntree Foundation. Available at: https://kar.kent.ac.uk/78253/

Mohan, R., (2006). Economic growth, financial deepening, and financial inclusion. Dynamics of Indian Banking: Views and Vistas, 92-120.

Naceur, S. B., Barajas, A., & Massara, A., (2017). Can Islamic banking increase financial inclusion? In Handbook of Empirical Research on Islam and Economic Life. Edward Elgar Publishing. Massachusetts.

Nguyen, T. V., N. TB LE, and N. J. Freeman, (2006). Trust and uncertainty: A study of bank lending to private SMEs in Vietnam. *Asia Pacific Business Review*, *12*(4), pp. 547-568.

Woolcock, M., (1998). Social capital and economic development: toward a theoretical synthesis and policy framework. *Theory and Society*, *27*, pp.1 51-208.

World-Bank, (2008). Finance for all? policies and pitfalls in expanding access, a world bank policy research report, Washington, DC, 265.

World-Bank, (2009). Banking the poor: measuring banking access in 54 economies. Washington: The international bank for reconstruction and development.

Xu, L., & Zia, B., (2012). Financial Literacy around the World: An overview of the Evidence with practical suggestions for the way forward. Policy Research Working paper 6107, The World Bank Development Research Group, Finance and Private Sector Development Team.

Zins, A. & Weill, L., (2016). The Determinants of Financial Inclusion in Africa. *Review of Development Finance*, *6*, pp. 46-57.