Sholevar, Maryam (2023)
Mind the Gap: the Relationship Between Gender, Financial Inclusion and Financial Literacy
PhD thesis. SOAS University of London
DOI: https://doi.org/10.25501/SOAS.00039119
https://eprints.soas.ac.uk/39119/

Mind the Gap: the Relationship Between Gender, Financial Inclusion and Financial Literacy

Maryam Sholevar

Thesis submitted for the degree of PhD

June 2022

School of Finance and Management

SOAS, University of London

Abstract

Ambitious plans for sustainable development in Ethiopia since the mid-2000s have significantly improved the financial inclusion of women along with the wider financially excluded population. However, the critical question about the gender gap is still at stake. To analyse the current status of financial inclusion and financial literacy, we have to develop a more comprehensive method since available research tends to focus on a limited number of factors, which are primarily relevant in developed economies. Building on the existing literature, the first part of this research developed a new conceptualisation of financial literacy and financial inclusion, incorporating a pragmatic perspective. A comprehensive questionnaire was designed to examine financial literacy and financial inclusion and used to collect data on a number of variables. Jimma (the second largest city of Ethiopia with strategic economic and geopolitical interests, as opposed to the capital, the home of international/big corporations, and its surrounding towns were chosen as the sampling population. The second part is the empirical analysis of the collected data using various statistical techniques. Since the questionnaire included the standard methods of measuring financial literacy, the usefulness of the method developed here was demonstrated through a comparative study. The questionnaire answers were interpreted into numerical data for statistical analysis by Stata. Various analytical methods were employed to evaluate the reliability of the proposed scale and standard measures. Since the ratio of financially excluded women in Ethiopia overshadows those who are financially included, the equal ratio of male/female participants was used in the present study. It was found that amongst women who are financially included, there is no significant gender gap in terms of financial literacy. In other words, financial inclusion is associated with a wider set of cultural barriers rather than the lack of financial literacy per se. A positive correlation between trust, financial literacy and inclusion was found. The results have implications for policy, most notably, that policies to increase financial inclusion have to go beyond finance itself to incorporate other socio-economic factors, such as equal access to education.

Table of Contents

Acknowledgement

I would like to thank Professor Laurence Harris, my initial first supervisor (now the second supervisor), who believed in me in the first place. Without his exceptional support, I would not take up this PhD endeavour. No word can express my gratitude.

I wish to express very special thanks to Professor Christine Oughton, my first supervisor, who made this research project possible. Not only was she quintessentially supportive in the transition of my supervision, but also she made the impossible possible to secure the research fund in due time. Furthermore, she went way beyond her official responsibility to scrutinise every tiny detail of this thesis, which could not reach the current status without her invaluable comments and suggestions.

I acknowledge financial support from the DFID- ESRC [ES/N013344/2] Research Grant on “Delivering Inclusive Financial Development and Growth” under the Growth Research Programme (DEGRP) Call.

I would like to thank AXA Scholarship, which funded my PhD study.

List of Acronyms

ACET: African Centre for Economic Transformation

ADLI: Agricultural Development Led Industrialisation

ADP: Amhara Democratic Party

ALP: American Life Panel

ATE: Average Treatment Effect

ATM: Automated Teller Machine

CBDC: Central Bank Digital Currency

CBE: Commercial Bank of Ethiopia

CEPR: Centre for Economic Policy Research

CFA: Confirmatory Factor Analysis

CGAP: Consultative Group to Assist the Poor

COVID: coronavirus disease

CRM: Customer Relationship Management

DBE: Development Bank of Ethiopia

DCPEW: Development and Change Package of Ethiopian Women

DFID: Department for International Development

DNB: De Nederlandsche Bank

ECCAS: Economic Community of Central African States

ECOWAS: Economic Community of the West African States

EFA: Exploratory Factor Analysis

EPRDF: People's Revolutionary Democratic Front RFM

EU: European Union

FAS: Financial Access Survey

FDI: Foreign Direct Investment

FI: Financial Inclusion

FL: Financial Literacy

FTE: Full-Time Equivalents

GDP: Gross Domestic Product

GFLEC: Global Financial Literacy Excellence Center

GNI: Gross National Income

GRB: Gender Responsive Budgeting

GSMA: Groupe Speciale Mobile Association

GSS: General Social Survey

GTP: Growth and Transformation Plan

GTPI: Growth and Transformation Plan I

GTPII: Growth and Transformation Plan II

HCE: Ethiopian Households Consumption-Expenditure

HRS: Health and Retirement Study

ID: Identity Document

IFI: Index of Financial Inclusion

IMF: International Monetary Fund

INFE: International Network on Financial Education

ISA: Individual Savings Account

IV: Instrumental Variable

JBLFM: John B. Lacson Foundation Maritime University

L&M: Lusardi and Mitchell

LCU: Local currency unit

LOC: Locus of Control

MFI: International Monetary Fund

MOFED: Ministry of Finance and Economic Development

MOU: Memorandum of Understanding

MSME: Micro, Small and Medium-sized Enterprises

MW: Megawatt

NBE: National Bank of Ethiopia

NCFE: National Centre for the Financial Education

NFC: Near Field Communication

NFIS: National Financial Inclusion Strategy

NGO: Non-Governmental Organization

NIDS: National Income Dynamics Study

ODP: Oromo Democratic Party

OECD: Organisation for Economic Co-operation and Development

OLF: Oromo Liberation Front

PASDEP: Plan for Accelerated and Sustained Development to End Poverty

PCA: Principal Component Analysis

PCBI: Public Confidence in Bank Index

PCBR: Public Confidence in Bank Rate

PFM: Public Financial Management

RAND: Research and Development

RCT: Randomised Controlled Trial

RFC: Rural Financial Cooperatives

ROT: Rule of Thumb

SAIIA: South African Institute of International Affairs

SDPRP: Sustainable Development and Poverty Reduction Programme

SEPDM: Southern Ethiopian People's Democratic Movement

SHIW: Survey of Household Income and Wealth

SME: Small and Medium-sized Enterprises

SMS: Short Message Service

SSA: Sub-Saharan Africa

TPLF: Tigray People's Liberation Front

UK: United Kingdom

UN: United Nation

UNDP: United Nations Development Programme

US: United States

USAID: United States Agency for International Development

WDA: Women Development Army

WVS: World Values Survey

List of Figures

List of Tables

List of Questionnaires

Questions for Collecting General Information (G).

Financial literacy Questionnaire (QL).

Trust Questionnaire (QT).

List of Appendices

Chapter 1. Introduction

Ethiopia is a unique African country; it is the most populated landlocked country worldwide and has a special geopolitical position among other African countries. Furthermore, Ethiopia is one of the fast-growing economies and aims to become a lower-middle-class income country by 2025. The country's GDP per capita increased significantly from $61 to $1794 between 2000 to 2018. According to the Worldbank (WorldBank GDP, 2021), in 2020 Ethiopia, with 6.1% annual GDP growth, has the fourth-highest annual growth rate worldwide.

This fast economic growth reduced the poverty rate and enhanced the wellbeing of the citizens (Bundervoet et al., 2020). Studies showed that a large part of this growth was related to the service and construction industries and considerable public infrastructure investment. Over this period of fast growth, the nation's economic structure transformed from an agricultural-based economy to a more modern and service-based one (Ketema and Diriba, 2021).

At the same time, the country went through extreme social and political reforms; approval of the gender policies was one of the most important ones. Ethiopian women suffered from inequality and oppression for many years until 1995, when the government established equal rights between men and women through the National Women Policy. In the following years, the Ethiopian government addressed women's rights and gender equality in various strategic plans, e.g., the Development and Change Package of Ethiopian Women and the National Growth and Transformation Plan I and II. Through these policies, women's participation in political and economic activities has been highlighted to reach social and economic accomplishments. Yet, it was recorded that women have less economic contribution than men; hence women have less financial resources (UN Women, 2014). Lack of skills and limited access to financial resources and information, especially in rural areas, were the main factors responsible for the vulnerability of women during crises (UN Women, 2017). Though the government is doing its best to enhance women's wellbeing, it appears that adequate financial knowledge and feasible access to financial services play an important role in lowering vulnerability among women.

This thesis focuses on the financial inclusion and financial literacy of women in Ethiopia. It considers the scope of inclusion for Ethiopian women. What is financial literacy, and how can it be measured? How do women attain financial information and knowledge? Are men more knowledgeable than women in terms of personal finance? What are the factors affecting access and usage of financial services? And how to improve the financial literacy and financial inclusion of Ethiopian women?

Previous studies showed that many suffer from inadequate financial literacy worldwide. In fact, since the 2008 global crisis, financial literacy has come into the spotlight, but the available definitions are of theoretical nature, addressing major issues that appeared in specific economies, as presented in this work through an in-depth analysis of the literature. Despite the global epidemic of the crisis, such as COVID-19, its pattern was not globally the same. Utilising the current definitions without considering their validity has caused a misconception about inspecting emerging problems. Therefore, a new definition of financial literacy is required, which could be universally applied to various types of economies. Applying this definition to typical cases revealed that some of the key problems discussed in the literature are not indeed critical issues, while major issues are usually neglected. The best example is the case of the gender gap, where we might need to find new solutions as most of the previous studies have been based on inappropriate (or at least less practical) premises.

It is important to consider that many people do not have appropriate access to financial services. Even in the case of existing access, awareness is not satisfactory to exploit the full range of available services. As a result, making the wrong financial decision is prevalent among people, and women may be more at risk of financial problems because of the disparity in financial inclusion and awareness.

After the 2008 financial crisis, concern about the level of financial literacy among consumers increased (Atkinson and Messy 2011; Lusardi and Mitchell 2014). Some researchers developed different models to predict the process of financial decision-making, and some reviewed different pieces of literature to find the determinants of this process. Almost all of them agreed that financial literacy significantly impacts financial behaviours such as savings and payments. Hence, governments and organisations have aimed to enhance the level of financial literacy.

Since implementing schemes for financial literacy are expensive, time-consuming, and requires strong collaboration at the institutional levels, most of these projects were operationalised in developed countries. Nonetheless, in order to enhance financial literacy, a comprehensive definition is required to facilitate a meaningful measurement. As a consequence, there were many efforts to (i) define financial literacy, (ii) assess the level of financial literacy, (iii) analyse its relationship with financial behaviour, (iv) and Investigate if there is any disparity.

Different researchers took various approaches; some just defined it, some defined and proposed a measure, some studied its impact on financial behaviours, and so on.

After defining financial literacy, Atkinson and Messy (2011) measured it through a questionnaire. Lusardi and Mitchell (2011) took a step further and studied its impact on wealth accumulation. Moreover, some researchers, such as Nanziri and Leibbrandt (2018), constructed an index to measure financial literacy.

Previous studies on financial literacy not only emphasised the low levels of financial literacy but also showed that higher levels of financial literacy would help bring prosperity (Lusardi and Mitchell 2011), more secure retirement (Lusardi and Mitchell 2007), and better financial behaviour. However, in measuring the level of financial literacy in order to assess the gap in gender and age groups, there is considerable debate since some scholars argue that the definition of financial literacy is context-specific (Carpena and Zia 2017). Therefore, observations that women have a lower level of financial literacy or that financial literacy has an inverted-u shape relationship with age should be placed under scrutiny.

Many of the existing definitions and measurements of financial literacy used in previous studies have been tailored for developed countries. While financial literacy and financial behaviour are usually assessed at the household level, the gender dimension of household agents is less explored, which may obscure women's apparent low levels of financial literacy. Moreover, financial literacy builds the basis of financial inclusion and arguable helps to improve it. Although financial inclusion is a practical concept, financial literacy has been mostly defined from the theoretical perspective far from pragmatic frameworks. Considering the fact that financial inclusion is geographical-dependent, a universal definition of financial literacy is ineffective. Nevertheless, the available definitions of financial literacy are not applicable in every context. A further problem is that these definitions are less applicable in developing countries due to differences in the availability of financial services and yet these are the countries where there is most need to increase financial literacy and financial inclusion. In the end, defining financial literacy while considering the context is of utmost importance.

In the case of Ethiopia, where the context of finance and available financial service are quite different from those of developed countries, a native definition of financial literacy is required to develop an accurate measure. By applying such a measure, underlying issues such as the lack of access and usage, gender disparity, and weak financial infrastructure, could be addressed more effectively. Another important aspect of this research is assessing trust and its impact on financial literacy and financial inclusion due to the social structure of Ethiopia. In Ethiopia, people have strong personal networks, both formally and informally (Kassahun, 2010). In such a community with a high level of social capital, trust in the finance context is a vital component that should be studied thoroughly.

1.1 The Research Objective

Socioeconomic studies in non-cosmopolitan areas of countries like Ethiopia usually suffer from common flaws. They are somewhat biased if conducted by locals and can ignore native features. I had a rare chance to blend with the community in Jimma. I noticed women are engaged in the job markets as much as men (different jobs). Yet there were studies that explained that women's economic contributions are significantly lower than men's, and women are financially less literate and included. I was then puzzled by the question: what are the nature and key drivers of this gap?

When I started this project, I had a chance to look into the issue from the perspective of FL and FI.

I wondered if there is any relationship between financial literacy, financial inclusion and gender. In other words, I wanted to look at the question: Does gender affect financial literacy and inclusion?

I reviewed the existing literature; most studies showed women have a lower level of financial literacy and inclusion. However, there was no consensus on the definition and measuring methods. Plus, there was no adequate data; hence, I had to collect data through structured questionnaires. Noteworthy, the recent report of Global Findex has no data on Ethiopia.

It should be noted that financial literacy builds the basis of financial inclusion and arguably helps to improve it. Furthermore, financial inclusion is a practical concept; financial literacy has been mostly defined from the theoretical perspective far from pragmatic frameworks. Since financial inclusion is geographically-dependent, a universal definition of financial literacy is limited.

I tried to use well-established methods to measure FI and FL, and then I found out the root of the problem is the lack of a practical definition and good measures of FI and FL. More questions came up, questions like:

- How can we define and measure financial literacy and inclusion?
- What is the role of trust in financial literacy and inclusion?
- What is the relationship between trust, financial literacy and inclusion?
- How included are people in developing countries, particularly when comparing rural vs urban areas? Which I tried to answer.

The present study is different from the previous works because of some key features. First, I extended the definition of FL in new ways. Second, I designed and tailored the questionnaires based on the availability and needs of financial services in the target economy. Third, for this study targeting remote areas, I sampled quite different groups in various areas, with an equal number of men and women. Fourth, for such detailed questionnaires, the number of participants is quite high; 470 individuals participated in this study. All of the respondents have some kind of access to financial services. I introduced several indices which correlate well with each other and enable us to assess the impact of gender in a new light.

This study goes beyond inclusion-exclusion to consider the depth of inclusion.

Although my interest started from within Ethiopia, this choice's objective goes beyond my interest for two reasons:

1. Ethiopia is an interesting economy to study because the financial model of Ethiopia is similar to that of other developing economies due to the similar infrastructures (so there may be wider implications)

2. Interesting economic characteristics, the country went through extreme social and political reforms; approval of gender policies designed to promote equality was one of the most important ones.

The results show that academics, policymakers, and officials involved in financial literacy, financial education and gender equality probably benefit most from this research. Employing new methods covering the population's financial needs and socioeconomic characteristics could assist researchers in reexamining the previous works. As for politicians and policymakers, this measure could be an efficient tool for identifying the gap between available financial services and financial needs. More importantly, assessing the gender disparity in access to and usage of financial services could be more scrutinised in the light of the new measure, which covered various aspects of the participants' lives.

1.2 Trade-off between Big and Country-specific Indices

Most of the available definitions and measurements of financial literacy and inclusion have been designed for affluent countries. Hence, they lacked comprehensiveness in different contexts to adequately cover developing countries.

Though globalisation facilitated access to financial services and products for customers, the context has its impact on financial literacy and inclusion. Notwithstanding, there is a difference between the availability and accessibility of financial services. Lack of money, identity documents, time, internet, and even national law could hinder the accessibility of financial services.

The main factors influencing access and availability of financial services are the general economic situation, policies, and socio-cultural agents. Hence, financial literacy and inclusion should be considered a relative concept, and in the process of measuring them, different factors like the level of economic development, financial system, regulation, and financial inclusion should be considered. In other words, context should be acknowledged. For example, using a credit card is a part of daily life for many people in a developed country such as the UK. However, this service in Ethiopia has not been appropriately introduced due to the lack of infrastructure and prudential banking policies. Furthermore, Ethiopian banking customers have not felt the necessity of this product in their lives.

The big indices, such as the Three Big Questions were introduced in response to the 2008 financial crash, which has been extensively reviewed from various perspectives. For instance, the famous Chicago School economist Thomas Sowell (2009) from the political right perspective and Nobel Laureate Paul Krugman (2012), from the left standpoint, wrote two books to dissect the roots of the 2008 crisis. Neither blamed the lack of financial literacy of the individuals. On the contrary, both of them pointed out that it was a misconception.

Notwithstanding, the Three Big questions measures the knowledge on the interest rate, inflation and risk Diversification (stock market in particular). The interest rate in the US and many developed countries was zero for more than a decade; there might be better ways to measure the level of numeracy. Furthermore, the lack of financial literacy of the individuals was not the reason behind the stock market crash in 2008. Hence, instead of wasting money and time on asking some routine questions for the sake of comparability, it might be better to adapt the measure to the availability of financial services and financial needs. Nicolini and Haupt (2019) assumed researchers employed the ready-to-use measures due to their availability, possibility of comparability with previous studies, and feasibility of extending the investigation.

Overall, there is a lack of practicality in definitions and measures provided in previous studies. As highlighted before, the existing data were not sufficient to measure FI and FL in Ethiopia. Therefore, I proposed a new definition for financial literacy from a practical perspective by connecting the availability of and needs for financial services. This definition has completed the previous definitions by emphasising on financial needs and the availability of financial services.

If we consider the socioeconomic circumstances of each country under study and adapt the questionnaires to the financial needs and availability of services of the target population, we can employ this method to have comprehensive results.

The proposed questionnaire is not different from well-known surveys; the well-known and widely used "Lusardi–Mitchell questions" on inflation and compound interest were included to guarantee comparability with previous studies. However, the data analysis illustrated that the Three Big Questions is not an accurate measure of financial literacy, particularly in Ethiopia.

1.3 The Research Outlook

This research is composed of two sections: the theoretical framework and the empirical applications and analysis.

1.3.1 Theoretical Framework

The theoretical part aims to analyse the existing literature on financial literacy and financial inclusion. The focus is on two main issues: the conceptual framework for financial literacy and financial inclusion and the relationship between financial literacy and financial behaviour. Through this analysis, a new definition of financial literacy is proposed. A comprehensive review of the literature has been undertaken and around twenty definitions and measures are analysed.

The following chapter is about Ethiopia and its political and economic changes during the past five decades. Understanding the contemporary history of Ethiopia is challenging because of numerous events and forces with complex interconnections. The trajectory of the modern economy of Ethiopia is marked by the gradual shifts of power between the three major tribes, Oromia, Amhara, and Tigray, that dominate the country's politics. Despite numerous civil and international conflicts, the Ethiopian economy is now considered stable and satisfactory for foreign investments and international collaborations. Although there is little information about women (and this lack of information is a significant problem for the government's objective of sustainable development), the government has paid particular attention to the massive transition in the role of women in the socio-economy of Ethiopia in recent years. The contribution of women to the economy has always been stronger in the Oromia region, but this is also accompanied by an emerging migration of women from this region (who are mostly Muslim) to Arab countries. Women's economic and social position is particularly significant now in understanding the effect of the Covid-19 pandemic on Ethiopia. Based on previous experiences of pandemic disasters in Africa, women are more socially and economically vulnerable. The relative morbidity of women could be even worse for Ethiopian women because of their role in service businesses compared to their male counterparts. This chapter does not attempt to conclude; instead, the aim is to provide an unbiased outlook by connecting the critical points in the modern history of Ethiopia to provide a pragmatic perspective on the changing economy of Ethiopia with an emphasis on the role of women.

Chapter 3 is divided into three parts. The first part is about the conceptual framework regarding financial inclusion and financial literacy to better understand the following debates. This chapter seeks to identify the existing conceptual and practical definitions of financial literacy/financial inclusion and considers the most relevant ones. Then the relationship between financial literacy and financial behaviour is analysed. Does investing in financial literacy enhance access/usage of financial services? Is financial literacy influenced by personal characteristics such as gender? These are the critical questions that the corresponding sections attempt to answer.

The second part is a selective systematic review aiming to survey the existing literature on financial training where the focus is on two main issues, namely, financial training and gender disparity in financial literacy. Based on a thorough literature review, I identify research gaps in each of these dimensions. The identified gaps are then used to formulate two promising research ideas. Specifically, the promising research ideas seek to investigate the gender disparity and propose a novel method for financial training.

The third part discusses trust in the context of finance. Since trust has a habitual nature, as people generally tend to put their trust in a well-established system, it is critically complex in emerging economies where the financial infrastructure is subject to substantial changes through new regulations and opportunities. This part reviews the relevant literature on trust and its impact on knowledge and usage of financial services.

Since the new definition of financial literacy challenges the current state in terms of the relationship between financial literacy and financial inclusion, the gender disparity in financial literacy, and the link between trust and financial literacy, reassessing all of them is of utmost importance. Hence, the second part of this research will have a more practical nature.

1.3.3 Empirical Applications and Analysis

The empirical analysis begins with a discussion of methodology in Chapter 4 which explains how the data will be collected and analysed. The inadequacy of existing definitions of FL and financial inclusion and the conceptualisation of a new definition in Chapter 3 implies the need for a new technique to collect data and create new measures. To this end, new questionnaires have been designed to capture financial literacy, financial inclusion and trust in Ethiopia targetting micro/small enterprises and households (employees). The questionnaires included 95 questions; 10 demographic questions (gender, religion, income, and so forth), 57 questions on financial literacy and financial behaviour, and 28 questions about trust. Due to the Covid19 pandemic planned fieldwork in Ethiopia could not take place. To overcome this problem data collection was overseen by myself and my supervisor working in partnership with colleagues at Jimma University who translated the questionnaires into two local languages and implemented the pilot and full sample data collection via face-to-face interviews locally.[1]

Chapter 5 provides a descriptive analysis of collected data. The sample, which is composed of 470 individuals, is categorised into three groups based on gender (male or female), location of residence (urban or rural) and type of employment (small/micro-enterprise and employee). This chapter illustrates the differences between these groups in terms of financial knowledge, usage, and trust. The following chapter provides further empirical analyses of the level of financial literacy in the Jimma zone

In Chapter 6, the new indices are used to measure the level of financial literacy, financial inclusion, and their relationship. The rapidly growing economy and financial sector of Ethiopia provide an excellent opportunity for inspecting FL and FI in a

---

1 Funding for data collection was provided under Workstream 3.1 (led by Christine Oughton) of the ESRC DFID-ESRC [ES/N013344/2] Research Grant on “Delivering Inclusive Financial Development and Growth” under the Growth Research Programme (DEGRP) Call 3.

dynamic environment. The overall dependency of FL and FI was explored with the aid of statistical methods and I was able to pinpoint which factors are making the most contribution to the linear dependency of FL and FI. The empirical data and statistical analysis clearly show that undertaking an absolute view of FL/FI and oversimplifying the underlying factors can be misleading.

Chapter 7 measures three dimensions of trust namely trustee, trustor, and the context in an emerging economy. Ethiopia was an ideal place for this study due to the rapidly growing economy and the quality of life. The primary data were collected by directly surveying people in the most populated zone of Ethiopia (Jimma zone) amongst specific groups, small/micro-enterprises and employees, who had established or emerging interaction with the financial sector. The questionnaires were comprehensive to cover all aspects of trust, which was measured in both broad and narrow scopes.

Chapter 8 deals with gender disparity in financial literacy and financial inclusion, and illustrates that this gap is not intrinsic but extrinsic as a result of the social inclusion of women. In an extensive investigation of FL and financial inclusion (FI) in Ethiopia, it was found that there is almost no gender gap in financial literacy whenever women are socially included (running a business, being the head of household, etc.) as compared with their male counterparts. Various aspects of FI and FL were separately measured to shed light on the different dimensions of FL and FI.

Chapter 9 aims to explain the relationship between financial literacy, inclusion and trust in Ethiopia. By calculating the score of financial literacy, financial inclusion and trust, I found that individuals with a higher level of trust scored higher in financial literacy and inclusion.

And the final chapter summarises the main findings of the research.

Chapter 2. Women in the Contemporary Climate of Ethiopia: a Literature Survey on Ethiopia

2.1 Introduction

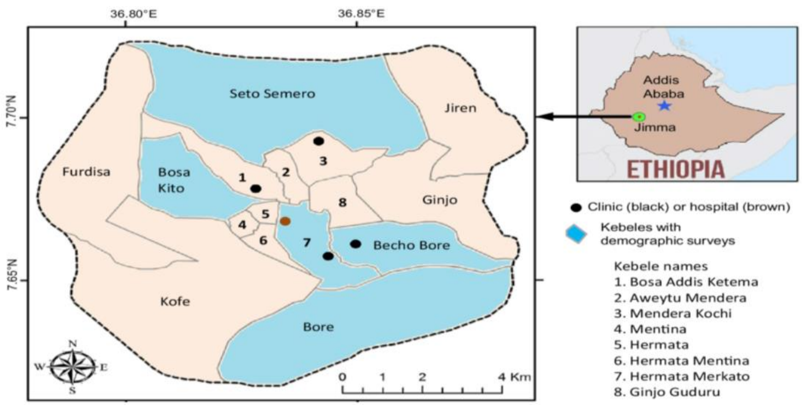
Ethiopia is somehow a unique case in Africa, from historical independence (1941) to modern rapid growth (starting in 2004). It is a landlocked country located in the Horn of Africa. It shares borders with Sudan in the west, Somalia and Djibouti in the east, Eritrea in the north, and Kenya in the south. More than 80% of the Nile river's water stems from Ethiopia, and the government built the Grand Ethiopian Renaissance Dam over the river to produce electricity for the nation and neighbouring countries (Abebe, 2021). The river is the source of conflicts between Egypt, Ethiopia, and Sudan.

Understanding the modern history of Ethiopia is challenging because of numerous events and forces with complex interconnections. The trajectory of the modern economy of Ethiopia is marked by the gradual shifts of power between the three major tribes, Oromia, Amhara, and Tigray, that dominate the country's politics. Despite numerous civil and international conflicts, the Ethiopian economy is now considered stable and satisfactory for foreign investments and international collaborations.

Ethiopia experienced numerous political and economic ups and downs during the past few decades, which is not unusual in Africa, but there are some unique features about Ethiopia. Ethiopia was never colonised but invaded and occupied by Italians in 1936, during the reign of Emperor Haile Selassie. Italians left the country in 1941. The nation acquired its independence long before other African countries. Before the heyday of the colonial period, the resulting sense of pride and dignity had a significant impact on the country's socio-politics.

To understand the country's economy, inspecting its place among other African economies and the impact of globalisation on its markets and productivity is vital. Dercon (2007) categorised African countries into three groups: those with valuable resources, such as Nigeria and Congo, and those with harbours and good access to the global market for transferring products like Ghana or Kenya. And the third group is countries with limited access to the world market and resources. Ethiopia is placed in the third group with a landlocked economy.

Figure 2.1 *Geolocation of Jimma in Ethiopia*



Consequently, its economy heavily relies on the agricultural sector. Djibouti is, therefore, a valuable ally for the nation for export and import. Its port, strategically located on trade routes, was connected to Addis Ababa by rail in 1917, and deep-water quays were constructed in the 1940s.

The country suffered from a civil war from 1974 to 1991. Following the independence of Eritrea from Ethiopia in 1993, a border dispute led to a bloody war from 1998 to 2000. On the other hand, droughts, corruption and lack of infrastructure had detrimental impacts on the nation's economy. One effect was seen in famines (1983-1985) when 1.2 million lost their lives, and around two million were internally displaced or left the country.

Ethiopia is now one of the fast-growing African countries where GDP per capita rose from $621 (constant 2011 international $) in 2000 to $1794 in 2018 (WorldBank). Over the period of fast growth, Ethiopia has experienced a significant change in the economy's structure. The share of the agriculture sector in the gross domestic product (GDP) in 2000 was about 45%, while services accounted for 36%, and industry (construction included) contributed 11%. By 2018, agriculture's contribution to GDP had dropped to 31%, while the figure for the industry reached 27%, the figure for the service sector fluctuated around 37%.

Ethiopia's fast growth reduced the poverty rate, and the headcount absolute poverty ratio, in terms of the national poverty line, reduced by 21% in 2015 compared to 1999 (Bundervoet et al., 2020). The population almost doubled in the same period and reached 109 millions in 2018. Also, women found better opportunities to take political and economic roles. The new era for women started around 1991 upon the approval of gender policies that promoted equality and women empowerment. But, the level of gender equality and women's empowerment have varied across different regions; women in some areas, such as Addis Ababa and Dire Dawa, have better educational opportunities (Tesema and Braeken, 2018).

In 2020, the outbreak of COVID-19 changed the strategic equations; infections caused Ethiopia to declare a State of Emergency in April 2020, and by August 2020, the country was facing an unpredictable future. In 2019/20, the real gross domestic product (GDP) growth decreased by 3.3% from 9.4% in 2010/11 because of the pandemic (World bank, 2021).

By looking at Ethiopia's chronicle of economic development, I try to understand how such a poor country turned the table and became one of the world's fast-growing nations. But the question is; will Ethiopia stay one of the fastest-growing economies in the world?

This chapter emphasises women and their positions and contributions since the Derg regime (the Provisional Military Government of Socialist Ethiopia between 1974 and 1987). Furthermore, the political and economic background of Oromia has been analysed since Oromia is the most populated region and has a vital part in politics and the economy.

In this chapter, I analyse the changing situation of women in Ethiopia as affected by political transitions. While all countries are continually fighting gender inequality, the circumstance is not merely inequality in Ethiopia, as discussed in detail. In the second half of the chapter, I narrate the political changes in Ethiopia during the past 50 years, which have directly affected women. There are, of course, several comprehensive reviews on the politics of Ethiopia in literature. Here, I aim to provide a concise overview of the political changes to highlight the changing climate for women.

2.2 Women

Inequality and oppression have always been inevitable parts of Ethiopian women's lives. On 21 August 1995, the legal position changed with new laws (National women's Policy by the Federal Democratic Republic of Ethiopia Constitution, Arts. 25, 34, 35 and 40) establishing equal rights between men and women. They found women's right to have a property and manage it and equal access to health, education and financial resources. Following, the Gender Mainstreaming Guidelines in 2011 were adopted nationwide, which proposed women's equal rights in marriage and divorce, property and asset ownership, and the workplace.

The country's legal framework also emphasises gender equality and women empowerment. Some of the notable national legislations are:

- Article 35 of the Constitution (1995) of the Federal Democratic Republic of Ethiopia focuses on women's rights
- Labour Proclamation Number 377/2003 is about equality in employment and payment without considering the gender
- The Federal Civil Servants Proclamation Number 515/2007 stipulates equal position means equal salaries.
- The Rural Land Administration and Land Use Proclamation Number 455/2005 gave equal rights of land ownership to women

Moreover, gender equality and women's empowerment as specified internationally in the Millennium Development Goals (UN, 2000. Goal five; promotion of gender equality and women's empowerment) were adopted as goals by the government of Ethiopia and addressed in several strategic plans, such as the Development and Change Package of Ethiopian Women (DCPEW, 2006), the National Growth and Transformation Plan I (GTPI 2011-2015) and II (GTPII 2015-2020). Through DCPEW and Growth and Transformation Plans (GTPs), women's participation in political and economic activities has been highlighted to reach social and economic accomplishment. The share of women in production is measured by the number of women employed in different sectors in GTP II.

Interestingly, women found the service sector more appealing to get employed;

hence around 80% of jobs in tourism and hospitality have been taken by women (UN report, Ethiopia, 2020). It should be taken into account that most economically active Ethiopian women are employed in peasant agriculture or the informal sector in urban areas. These occupations are often not included in the employment statistics, so part of women's contribution to the economy is not officially recorded (Bekana, 2019).

Women in Ethiopia do not participate in political activities frequently, yet the number of their representatives went up as Ethiopia evolved economically. Women took 8% of the seats in the federal parliament as of 2000 and held 38% of the seats in 2020 (WorldBank Data, 2020). Also, the first female president of Ethiopia was elected by members of the Federal Parliamentary Assembly on 25 October 2018.

Despite all of these changes, the United Nations, in various reports, called attention to the existing vast gap in gender equality and women empowerment. UN Women (2014) recorded that women have less economic contribution than men; hence women have less financial resources. This issue in rural areas was bolder, and families with women as the head of household suffered more from food insecurities. Lack of skills and limited access to financial resources and information were the main factors responsible for the vulnerability of women during crises (UN Women, 2017). Ethiopia's Gender Development Index and Gender Inequality Index scores were 0.84 and 0.502, respectively; Ethiopia ranked 117th out of 129 countries for gender development and 121st out of 160 for gender equality (UN report, 2020).

Concerning equal opportunities in finding a job, the percentage of employed women in the population is 20% less than men (43% for females compared to 64% for males). Working women in Ethiopia are more at risk of losing their jobs since they are mainly; around 65% (UN report, 2020) engaged in low-return activities run by informal economic sectors. Hence, women show more tendency to migrate, seeking a better life and job. Between 2008 and 2013, around half a million Ethiopians migrated through legal channels, in which 94% of them were female (mostly aged 22 to 29 years). The majority of female migrants were from Oromia with 34%, Amhara Region and Addis Ababa with 31%, and 16% ranked second and third. These women mainly left the country for Saudi Arabia, Dubai and Kuwait (USAID, Preliminary Gender Profile of Ethiopia, 2014).

To solve these problems, the Ethiopian Public Financial Management (PFM), through the Gender Responsive Budgeting (GRB), sought to allocate adequate funds for the projects aiming at women's progress and equality. GRB "seeks to ensure that the collection and allocation of public resources are carried out in effective ways and contribute to advancing gender equality and women's empowerment" (UN Women). More than 90 countries have adopted some form of GRB by 2018. Seventeen of them were OECD members; the aim was not just to fund explicit gender equality initiatives but to promote gender-responsive policies. (European Commission report, 2019) Philippines, Sri Lanka, Fiji, and Bangladesh were pioneers among the Asia-Pacific countries, and Morroco, Rwanda and Uganda were the most successful in Africa. (United Nations Escap, 2018). The Ethiopian government implements the GRB plans via the national legal, policy and institutional framework. In general, three types of expenditures by institutions and all public bodies are included in this budget; particular programs for men and women such as health or special education programs, equal employment opportunity expenditure, and budget expenditure for providing services or products which are assessed for their gender impact (MOFED, 2012).

Although Ethiopia is executing the Global Financing for Gender Equality programme, insufficient sex-disaggregated data and a lack of gender analysis hindered the government's efforts (UN Women, 2018). Regarding external assistance, many international organisations, such as UN Women, run multiple programmes to train and assist women in enhancing their welfare. Though the role of women and obtaining impartiality are reflected in structural reform programs such as GTPs, gender equality and women empowerment should still be stressed to attain economic prosperity.

These efforts at the institutional and individuals level could be productive if the role of culture and social standards were not neglected. In many developing countries, even in developed ones, women have to follow norms and social rules, which determine their level of participation in outdoor activities. Mulema and Nigussie (2019) stated that gender impacts job acquisition; Ethiopian females held a less prominent position in different sectors than men. Since empowerment and gender equality are context-based concepts, the authors reviewed some qualitative and quantitative research in Oromia to determine the general perception. Based on their report, empowerment is locally defined and strongly affected by the cultural standards of the area. For example, leadership and freedom of mobility are the characteristics of an empowered Oromo woman.

In Oromia, especially in rural areas, the proportion of men and women in income contribution is almost equal. Still, Oromo women are more engaged in socio-economic matters than other regions. The preliminary gender profile of Ethiopia (UN Women, Ethiopia, 2014) noted that the Women Development Army (WDA) in Oromia has more participants in comparison with Amhara or Tigray. These women actively are involved in their community's affairs to enhance the welfare of the households. Based on the National Census 2016, the level of literacy among women was so much lower than men in the Oromia zone. Yet, the figures for income contribution between men and women were similar. But, in the urban area, the number of women as the head of the household was higher than men and their income contribution (Table 2.1).

Table 2.1 A gender-based comparison of head of household's literacy and income contribution in the Oromia region

	Oromo region	**Urban area**	**Rural area**
Household Expenditure Per Capita Quintile- Birr	6,945,000	1,325,000	5,620,000
Women head of household	16,834,000	2,486,000	14,383,000
Men head of household	16,919,000	2,292,000	14,626,000
Women Income contribution	49.90%	52%	50%
Men Income contribution	50.10%	48%	51%
Literacy status, Women	23.50%	30.70%	21.00%
Literacy status, Men	76.50%	69.30%	78.00%

Unfortunately, the spread of COVID-19 would hinder the progress of different economic programs, especially gender-equality focused ones. Hence, it could be predicted that women's current situation might get worse due to the failure of the nation's economy.

Yet, preparedness is the key to overcoming the difficult time with minor damage in an emergency like this. Since inflation and chaos in the market are expected, sound financial behaviour could be considered a convenient way out.

2.3 The Finance and Households' Financial Behaviour

2.3.1 The Derg Period (1974-1991)

Nationalising the economy was the main aim of the Derg regime to strengthen the government. It was assumed that nationalising private sectors and restricting their activities would bring new opportunities for rural areas to win over their political support. All private financial institutions, such as banks and insurance companies, were nationalised in that period. Under this national economic plan, state farms could have received credit without paying collateral. In contrast, individuals and private farms were not eligible to receive adequate loans and credits. Hence financial inequality proliferated. As a result, the ratio of saving to GDP shrank from 7% in 1974 to 0.2% in 1990. Naude (1998) linked this drop to the land reform and nationalisation of the financial sector, which discouraged peasants from saving money. In addition, the government raised the tax to expand the army; consequently, peasants were left with no money to spare.

The Derg period was accompanied by the lack of financial knowledge, incompetency of the government, the volatile financial sector, and a shortage of skilled human resources, which crippled the households' economy. On the same note, Dercon and Krishnan (1996) surveyed 423 Ethiopian households between 1989 to 1990. They published that limited access to financial services in rural areas forced families to choose low-risk activities with low returns. The absence of infrastructure, low-level skills and ability, and lack of feasible access to credit had restricted the income portfolio in those places. Therefore, the level of welfare did not improve, and poverty persisted.

2.3.2 EPRDF (1991-present)

It is believed that a healthy financial system could bring prosperity to the economy through an increase in investment and saving, which is going to result in higher economic growth (King and Levine, 1993). Ethiopia is an excellent example of this theory; due to the solid financial system, the country safely overcame the collapse of international commodity prices in 2013 and the severe drought of 2016, whereas the other African countries encountered economic breakdown (Birru, 2019).

In 1991, the new government overtook a broke and chaotic country. In the previous regime, the majority of people were financially excluded; hence the new system put so much effort into bringing inclusiveness to rural areas through various projects such as establishing the rural financial markets (RFMs). It should be kept in mind that saving, credit, and payment methods have a vital impact on productivity in rural areas; where saving raises capital flow, access to credit increases productivity and payment instruments would promote financial markets participation. Hence, a sound financial system and easy access to financial services in rural areas could improve welfare and boost productivity.

Considering the importance of access to financial services in welfare and poverty reduction, the government significantly insisted on developing RFMs (Berhane and Abay, 2019). Despite all these efforts, Findex (2017) recorded that only one-third of the rural population had an account in financial institutions by 2017. The figures for saving in and borrowing from financial institutions were 25% and 11%, respectively. According to this report, a considerable proportion of the people remained unserved. The share of Ethiopia women was so much less than men; only 29% of them had an account, while 41% of men were able to open an account in financial institutions. The proportion of women with savings was 13% less than men, and this gap for borrowing was 4%. The percentage of female accountholders increased by 8% compared to 2014 data.

In this context, Berhane and Abay (2019) concentrated on finding the roots of this issue and questioned the comparability between the financial needs and characteristics of offered services. Sholevar and Harris (2019), in their discussion on financial literacy, highlighted the importance of harmony between financial needs and designing financial services.

Furthermore, in their report, Amha and Peck (2010) pointed out that the scarcity of financial skills on both supply and demand sides had constrained access to proper financial services. Similarly, in an experimental research attempt in the rural area of Ethiopia, Dercon et al. (2014) discovered that the lack of trust and knowledge of insurance were the main reasons for the low uptake of weather insurance in the poor area. A way out of this problem could be the training of farmers, as increasing the knowledge of the index insurance could raise the uptake.

Another striking reform in the financial sector in this era was the active participation of the micro-financial institutions (MFIs). Through the group-based lending implemented by MFIs, many households and MSMEs (micro, small and medium enterprises) were able to borrow, expand their business and enhance their livelihood. Despite all of these, the tendency to avoid risk lowered the uptake of credit by households. This occurrence confirmed that an active financial market required close interaction between the demand and supply sides (Berhane and Abay, 2019).

Nonetheless, hasty financial liberalisation left the banking system incompetent due to inadequacy, high costs, and lack of technical infrastructure. Consequently, a notable percentage of the population in the rural area was excluded from the financial inclusion circle.

Overall, the nation's economy started to develop during the EPRDF time, especially in the last decade. Notwithstanding, Ethiopia took a bit unconventional approach to grow economically, from its strategic plans to foreign partners.

2.4 Banking and Financial Sector

Ethiopia is now one of the fast-growing African countries where the GDP per capita rose from $124.5 (current USD) in 2000 to $944 in 2021 (WorldBank). The current exchange rate of Ethiopian Birr to USD is 52.6 as of September 2022. With a growth rate of 6.1 in the 2019/20 financial year, Ethiopia was the fastest growing economy in Africa; the National Bank of Ethiopia reported a 0.2% increase in 2020-21 (National Bank of Ethiopia 2021). The share of the service, industry and agriculture sectors in GDP did not change significantly during the last year and remained around 39.6%, 29.3%, and 32.7%, respectively.

Though the poverty rate decreased by more than 15 points from 2005 to 2016 and reached 24%, there was a rise in the GINI index by 0.03 points, which indicates an increase in income inequality (World Bank, 2019).

The inflation rate did also rise by 6.3 points in 2022 from 2020, and the country experienced a notable fiscal deficit (AFDB, 2022). The formal financial sector in

Ethiopia comprises financial institutions such as banks, insurance companies and microfinance institutions (MFIs); the National Bank of Ethiopia supervises these financial institutions. Around 76% of the financial sector capital comes from the banking sector, with 51% belonging to state-owned banks. The shares of microfinance institutions and insurance companies are 16-5 % and 9%, respectively (AFDB, 2022).

Ethiopia's financial sector is not as advanced as the neighbour economies such as Kenya; plus, the government has complete control over its monetary and foreign exchange policies. Since the banking sector has dominated the finance sector, it is of utmost importance to understand the structure of this sector.

Bank of Abyssinia was the first bank that Ethiopia's government purchased in 1931; it was the first national bank of Ethiopia and was called the Bank of Ethiopia. In 1943, after Italians left the country, the first state-owned bank in Ethiopia started to operate. The State bank of Ethiopia was modernised in 1963 and became the National Bank of Ethiopia and Commercial Bank of Ethiopia. Other banks also started to provide banking services. Before the Derg reign, there were a few foreign banks, and there was competition in the banking sector. Between 1974 and 1991, Derg took control of the government and nationalised the private companies and banks. All banks were merged into one government-owned mono-bank.

After Derg, the country experienced financial liberalisation, which enhanced the level of access to and usage of financial services. Yet, the financial system is still largely dominated by one state-owned commercial bank.

In their annual report of 2020/21, the National Bank of Ethiopia stated that the finance sector had increased its physical points of access by expanding the number of banks and branches. There are currently 19 banks. The total number of bank branches increased by more than 800 compared to the last year, which more than 30% of them located in Addis Ababa (National Bank of Ethiopia, 2020/21). Insurance companies branches increased by 27 and reached 632; half of these branches are in Addis Ababa. As for the microfinance institutions, the total number stood at 39 with a 43.4% increase in the capital, and the total capital is equal to 27.8Billion Birr. The national bank of Ethiopia reported that the total capital of the banking sector has risen by more than 36% and is 153.7 Billion Birr. There was a rise in total capital of the insurance companies too, and it reached 11.1 Billion Birr in 2021.

The banking sector in Ethiopia has an implicit depositor protection system to guarantee objectives such as stability, reliability, and trust. However, there is no explicit deposit insurance fund to provide a tool to pay the bank customers during a bank failure. In 2021, the first draft of the Ethiopian Deposit Insurance Fund Regulation was prepared by the Council of Ministers to strengthen the country's financial system by guaranteeing its safety, soundness and stability (Allafrica, 2020). It states that "the Fund shall pay insured deposits per a depositor per a member financial institution. The coverage limit of the Fund shall be set by the Board, however, may not be less than Birr 100,000 (One Hundred Thousand Birr)."

The informal financial system in Ethiopia is called "Iqub" and "Edir/Mahiber", which is the traditional system, and Ethiopians are so proud of it. Berhanu and Azadi (2021) showed that people in Ethiopia prefer to use informal finance instead of formal one since the formal financial system is underdeveloped. They also explained that the amount of savings is different based on income level. The Iqub money could be used for various occasions like weddings, funerals, sicknesses, etc. In our study, a higher number of participants chose to use banking services for saving.

Unfortunately, there is no data on Ethiopia in the 2021 Findex report; hence, I used the 2017 report. According to the World Bank survey (Findex, 2017), only 35% of adults in Ethiopia have accounts in the formal financial sector. Global Findex (2017) surveyed 150,000 randomly selected and nationally representative individuals above fifteen in 148 countries. The participants were asked about managing their day-to-day finances, their future financial plans, and access and usage of formal and informal financial services. Moreover, the socio-demographic characteristics of the participants were also provided.

The absence of valid data is not limited to micro and small businesses but also across the financial sector. For example, the lack of an accurate database on the number and nature of the MSEs and SMEs was one of the constraints that could affect this research's internal reliability. Unlike in developed countries, registering for small businesses is not common in developing countries like Ethiopia, especially for micro businesses. Plus, lack of trust in government and officials is another reason business owners do not register their information with relevant organisations. In the case of micro-businesses, they can quickly close down and move to their places.

Studies showed that lack of access to finance, infrastructure, and entrepreneurial attitudes are the main hardships hindering microbusinesses (Endris and Kassegn, 2022). Microbusinesses often have a short life and, due to poor investment and lack of proper management, would go down not long after launching (Abebe et al., 2018).

2.5 Education

In Ethiopia, the education system is composed of primary (elementary), secondary (junior and senior secondary), vocational (Technical and Vocational Education Diploma), and tertiary (college/university degrees). Primary and secondary education is mandatory for children between 6 to 16 years old, yet there are many obstacles, such as lack of infrastructure, poverty, and socio-cultural factors, that affect proper access to basic education.

During the past few decades, many efforts have been made to enhance girls' access to education. Still, many factors impede gender equity in the education system.

Access to basic education in Ethiopia has increased significantly during the past few decades. In 1908, the first modern school was established in Addis Ababa by Emperor Menelik II, but women were not allowed to study. Empress Menenby founded the first school for girls in 1931. It was the first measure to introduce gender equality (Bishaw and Lasser, 2012).

Derg's regime ruled over the country from 1974 to 1991, yet there was no apparent improvement in gender equality. The Ethiopian People's Revolutionary Democratic Front (EPRDF) took control of the country in 1991 under the leadership of Meles Zenawi. During his time as the prime minister, Meles tried to prioritise economic and social improvement. Establishing the Education and Training Policy (ETP) in 1994 was one of the commitments directed toward gender equity. The nation's fast economic growth positively impacted gender equality in education (Woldehanna and Araya, 2019). Nonetheless, assuming that economic progress would automatically solve the underlying structural disadvantages in education for girls might have an adverse effect (York et al., 2021).

The disparity in education is more evident in higher education; only one-third of college students are female (Kim, 2022).

The data from the Ministry of Education showed 51 points increase from 1999-2000 to 2018-19, and the net primary school enrolment was 95%. Yet, the net enrollment ratio dropped by 9.6 points in 2020-2021 (Ministry of Education, 2021). Moreover, access to basic education in Ethiopia is also affected by factors such as gender, location of residence, and income level. A boy from a wealthy family in Addis Ababa has a higher chance of completing primary school than a poor girl from the Afar region (Iyer et al., 2020). In Ethiopia, gender norms are still one of the main barriers for girls in accessing basic education (Colclough et al., 2000).

Though the country has benefitted from the fast expansion of education, the share of females with access to basic education is still low. York et al. (2021) explored the importance of politics in girls' access to basic education. They argued gender equity policies in education were more about increasing access to basic education, employment and economic participation rather than removing the social and cultural barriers which are the key drivers of the gender gap. They noticed that women do not have a key role in designing reform programs related to girls' education and interpreted it as a clear sign of disparity. Their work illustrated the role of both formal and informal institutions in closing the gender gap in education.

Considering the importance of the politics and policies in girls' access to education, a more thorough investigation is required to pinpoint the roots of gender disparity in education and possible resolutions.

2.6 Macroeconomics

The economy of Ethiopia is one of the fastest-growing economies and is in the transition toward a market-based economy. However, a few years ago, it was one of the poorest countries with many state-owned businesses. During the Derg period (1974-1990), the country witnessed various socio-economic changes, such as; transferring the nation's economy into a semi-socialist one by nationalising private lands and business, villagisation, state-led industrialisation, and establishing Peasant Association in rural areas. In 1974, after the Derg took control of the country, the civil war emerged, leaving the economy in a significant decline. People were still mourning the dead when the widespread famine struck them from 1983 to 1985 (De Waal A., 1991).

Since Ethiopia was a landlocked country, and its economy hugely depended on agricultural production, this drought and ongoing civil war with millions of dead crippled the economy. They posited it into a state of collapse. The government tried to improve the economy after the drought with the help of international aid (Abegaz, 1999). The GDP per capita started to recover in 1986 and reached 6582 (constant LCU) in 1987. Nevertheless, 1987 was the peak of the GDP per capita for this regime, and it fell to 4836 (constant LCU) in 1992, the lowest in the history of Ethiopia (the World Bank Data, 2020).

Following the rise of the transition government in 1991, a series of economic reforms were initiated. State ownership was a failed experiment tried by the previous government; this method discouraged farmers, investors and entrepreneurs and brought economic disparity. Hence, the lesson was learnt, and the new government restored the private sector. The system took other steps to strengthen the economy, such as slashing tariffs, devaluing the currency, and bringing stability to the market (Manyazewal and Shiferaw, 2019). Moreover, trade facilitator policies and expanded infrastructure played crucial roles in Ethiopia's rapid growth (Moller and Wacker, 2017).

Another important phenomenon was the fall of the Soviet Union which put distance between the newly reformed government and other socialist countries. This event caused a better relationship with western countries, rewarded by a significant increase in foreign aid. Receiving external aids and investments promoted structural adjustments. Undertaking reform programs improved the infrastructure and drew the attention of emerging economies in East Asia. Nonetheless, the stable political situation had also an essential role in facilitating these reformations.

The most notable change in the nation's economy was shifting toward the free market and liberalisation, which many debated was a clear departure from the previous socialist economic model. Among the other reform programs, Agricultural Development Led.

Industrialisation (ADLI), Sustainable Development and Poverty Reduction Programme (SDPRP), tax reform, and reaching Millennium Development Goals are distinguished. Nigatu (2018) explained that the state decided to adopt the Agricultural Development Led Industrialisation (ADLI) and industrialise the agrarian economy in order to alter the overall structure of the economy. Though the focus was agricultural productivity, a notable amount of investment flew towards expanding the communication network, developing the higher education system and generating hydroelectricity. Grand Ethiopian Renaissance Dam (under construction from 2011) is one of the outcomes of these reforms, which aims to produce electricity for the nations and other countries in the area.

Owing to the financial and economic stability of the country, even after the Eritrea war (1998 to 2000), in which Ethiopia lost its access to the Red Sea, the flourishing of the economy of the nation continued. The privatisation income primarily financed this war. Between 1992 and 2000 (fiscal year), the economy witnessed an average of 5% growth per year. The inflation rate from 21% in 1992 decreased to 5% in 2000, and services had the highest growth compared to industry and agriculture (World Bank Data). During this time, the country benefited more from external aid such as loans and grants than internal sources (Dercon, 2000). It should be highlighted that globalisation in early 2000 had a remarkable effect on development policies. Improving the economic connection with East Asian countries such as China altered the trade focus of the nation from the US and Europe to the East (Clapham, 2019).

Although records and figures show that the Ethiopian economy is growing fast, some hold sceptical views. Mengisteab (2019) suggests a large part of this growth is related to the recovery of the economy and the rise in public investment. In the same context, Moller and Waker (2017) analysed the country's economic data from 2000 to 2013 and concluded that this fast growth is the result of the public investment in infrastructure along with a reduction in public expenditure. The other logic for this suspicion could be the negligible effect of this growth on the economy's structure; more than 63% of the country is still in severe poverty (World Bank Data).

To fact-check the applicability of this theory, first of all, we should know how to measure poverty. World Bank, in 2000, introduced household consumption expenditure as an indicator of poverty (World Bank, 2000). The next step is reviewing the relevant data and statistics. According to Woldehanna and Araya (2019), the poverty line for 1995/6 and 2015/6 was set at 1075 and 7184 Birr, respectively. While the consumption expenditure increased by around 5000 Birr between 1995 and 2015, the proportion of poor people declined by a quarter. Yet, since the benefits of economic growth did not distribute equitably, the poverty gap widened significantly, and the poor became poorer. The Gini coefficient (the indicator of inequality) increased from 0.29 in 1999 to 0.34 in 2015; disparity in urban areas was more notable than in rural districts. Authors also recorded that some regions, such as Tigray, had the highest poverty headcount in 1995 and 2015, while the lowest figures belonged to Harari. In Oromia, around 40% of people in 1999 were considered poor by the headcount indicator; this figure plummeted to 24% in 2016. Though the highest rate of poverty reduction among African countries belonged to Ethiopia (World Bank), poverty was persistent at the household level, and the fast economic growth did not change it that much.

This success is the outcome of several strategic reforms authorised by the government to improve welfare and advance economic circumstances.

2.7 Structural Transformation and Its Impact on Economic Growth

As mentioned before, a few decades ago, Ethiopia was viewed as one of the most impoverished countries around the world, yet this outlook was changed; the country reached a double-digit growth rate in GDP during the past decade. In this glory, the agriculture sector played an important role, though its share in GDP reduced in recent years. From 1980 to 1990, this sector contributed to GDP by more than 50%, whereas the figure for the service and industry was 30% and 10%, respectively. But, in the subsequent decade, the share of agricultural production in GDP went below 50%, while the contribution of the service sector reached 45% (the World Bank sectoral composition of Ethiopia's GDP). So it is fair to say that service sector expansion was the primary tool to achieve economic growth in Ethiopia (Manyazewal and Shiferaw, 2019).

After the reform government took control in 1991, the first act was investing in different sectors to improve the economic situation. Hence, a series of strategic plans were started to transform the economy's structure. Oqubay (2019) defines structural transformation as a "shift of people and economic activities between sectors, and from low- to higher productivity activities".

Agricultural Development Led Industrialisation (ADLI) was marked as the primary strategic program and employed as the development framework in Ethiopia; it was completed by following plans such as SDPRP, PASDEP and GTPs.

Agricultural Development Led Industrialisation (ADLI 1994/5) aimed to enhance the agriculture sector as the country's economic power. Strengthening the agricultural and industrial productivities and linking these two sectors were the centre of this plan. In order to boost productivity, farm holders were trained to use agri-tech and practice better farming. And for connecting agriculture and industry, a large amount of money was invested in building roads and other transportation means. This strategic plan also regarded electricity generation, clean water, and improved telecommunication (Clapham, 2019).

In designing ADLI, it was assumed that growth in agricultural production would raise the income of rural households and solve the country's food shortage. Besides, the surplus could find its way to the market and develop the industrial sector by promoting the urban economy. Although the government provided the farmers with different stimulator packages, the output was hardly enough for the country's fast-growing population.

The Sustainable Development and Poverty Reduction Program was the following program launched in 2002, intending to lift poverty. More weight was given to the road network, electricity, and telecommunication infrastructure. During this three-year program, around 4000 Km of roads were constructed, and the electricity generation capacity was raised by more than 300MW (Ali, 2019).

All these plans targeted rural areas, but the subsequent step in structural transformation involved urban regions through the Plan for Accelerated and Sustained Development to End Poverty (PASDEP, 2006-2010). The focus of PASDEP was linking farmers to the markets by commercialising agriculture. Connecting rural areas to the urban markets and enhancing hydropower capacity were maintained during the

PASDEP period by constructing additional 20,000 KM roads and five major dams. The other striking change was developing the agricultural credit market to support commercial agriculture (Dube et al., 2019).

At this point, the government felt the necessity of international collaboration. Because Ethiopia is a landlocked country, accessing seaports was of utmost importance. However, the Eritrean war blocked the last direct port Ethiopia had access to; this was one of the critical issues during the 2000s. Finally, after the three national plans mentioned above, the government stressed finding new channels for international connection by designing GTPs. The Growth and Transformation Plan (GTP) focused on increasing income and expanding manufacturing. The first Growth and Transformation Plan (GTP I, 2010-2015) prioritised road infrastructure, power generation, rail infrastructure, aviation, telecommunication, and irrigation investments. The second Growth and Transformation Plan (GTP II, 2015-2020) aimed to enhance manufacturing since its share in GDP was flat at 5% during the past two decades. It is a well-known fact that a system can not progress without proper financing. In this framework, Shiferaw (2016) assessed panel data of private manufacturing companies from 1996 to 2007 to explore the cause behind this inadequate investment in manufacturing. He concluded that access to credit plays a critical role in attracting investors.

Though there are uncertainties in the nature of Ethiopia's economic growth, its impact on the nation's prosperity is undeniable. The reason behind these doubts was that the structural changes after 2000 were insignificant and shallow despite the high growth rate. It was even argued that industrialisation was the first step toward developing the economy. Yet, Ethiopia chose to expand the service sector, which did not significantly impact the development of other areas. Expanding the industry could have improved productivity and influenced other parts of the economy as well. Consequently, Ethiopia was categorised as the least transformed country in Africa in the African transformation report (ACET, 2014). This assessment was done among fifteen African countries, and five factors of structural transformation such as human economic wellbeing, economic diversification, and, e.g. were evaluated.

Unfortunately, the recent disaster was not calculated in any of these reform programs; thus, the government's current situation is quite tricky.

2.8 External Relationship

With the incompetent governing system, nationwide poverty and unstable political situation, and civil war limited foreign affairs of the Derg regime, the Soviet Union became the most important external partner. After 1991, the nation's policies concerning the international relationship changed towards enhancing diplomatic affairs in order to bring more aid and foreign direct investment into the country. Besides attracting more FDIs, luring tourists and increasing export were highlighted in the Ethiopian foreign policy guideline. Finally, under the political stability of the EPRDF, all these efforts paid off, and Ethiopia became a favoured target for FDIs in Africa; also, many emerging economies showed their interest in becoming the nation's trade partner (Cheru and Rekiso, 2019).

The problem of being a landlocked country was carefully considered in the First Growth and Transformation Plan 2010-2015 (GTP I) by emphasising facilitating connectivity with other countries; hence a large amount of investment was allocated to the transport infrastructures (MOFED, 2010). Concerning export and import, based on the World Investment Report published in 2017, the United States and Saudi Arabia were the top destinations for the country's export, while around half of the goods were imported from China, the United States, and India in order.

Though the government opened its door to attracting more FDIs, foreign interventions and investments in different parts of the service sector, such as banking, finance and telecommunication, are restricted intensely.

It should be said that the political situation and policies associated with foreign relations were utterly different, and it might be the reason behind the fall or success of the governments.

2.9 Ethiopia's Political Background

2.9.1 From 1974 to 1991

Up to 1974, the country was ruled by Emperor Haile Selassie, who was deposed by a Marxist military junta (the Derg). The civil war started and aggravated the country's socio-economic situation after the Ethiopian Empire's end. The Derg ruled the country from 1974 to 1991, and the nation took its first steps toward a structural transformation. Land reform was the government's most forward move for nationalising all rural and urban lands. The new regime tried to unite peasants to promote agricultural production. Even though Derg sought to make an inclusive Ethiopia, his efforts were futile, and the regime was annihilated in 1991. Clapham (2019) explained that the system collapsed due to economic failures. Several reasons were behind this economic breakdown ;

- favouritism in sharing the benefits of these reforms among different ethics and religions,
- inadequate foreign trade since the Soviet Union was the only international business partner,
- the decline in foreign investment due to the volatile political situation,
- negative impacts of socialism programs such as Viligisation on agriculture,
- shortage of agricultural workforces as a result of expanding the army,
- ineffective crisis management in the time of drought 84-85,
- and ethnic and religious discriminations in receiving foreign aid.

2.9.2 From 1991 to Present

The Derg was defeated by the Ethiopian People's Revolutionary Democratic Front (EPRDF) in 1991. The EPRDF consisted of four political parties, namely Tigray People's Liberation Front (TPLF), Amhara Democratic Party (ADP), Oromo Democratic Party (ODP) and Southern Ethiopian People's Democratic Movement (SEPDM). The fall of the Derg government taught them that inequality is the root of economic and political failures. Hence, they promoted territorial nationalism, connecting ethnic divisions to gain the nation's support (Clapham, 2019). The system's structure changed into federalism to link different ethnic groups and overcome internal conflicts. Mengisteab (2019) argues that federalism in Ethiopia was the foundation of economic prosperity and rapid growth. Following this, the EPRDF pacified every unrest part of the country, but they lost control over Eritrea in 1993 after it became independent.

Among famous EPRDF leaders, Meles Zenawi Asres earned fame. He was the second prime minister of the new government from 1995 to 2012 and head of the TPLF. He was one of the well-known Ethiopian politicians who introduced different reform programs, politically and economically. The Eritrean–Ethiopian war happened during the Meles time and continued for two years. This conflict limited the country's export by losing access to the Eritrean Red Sea ports, while Djibouti harbour became more critical for economic purposes.

At the start, the state was supposed to be ruled by all major parties constituting the EPRDF, though, in practice, it perceived that it had been led by one party; TPLF. In 2005, due to international pressures, the regime ran an open election, which significantly oppressed the political opposition. In 2010 and 2015, the opposition's number of parliament seats decreased to two and zero, respectively. Applying these measures was supposed to gain the nation's support, yet the land grabbing activities in the Oromo region angered Oromos. The disputes lasted long, and many people were killed or prisoned. After three years, Hailemariam Desalegn, Meles's successor, who led the country for five years, resigned, and Abiy Ahmed was the new prime minister. He is the first Oromo leader of the EPRDF from ODP. He has taken many steps towards a politically and economically free country, releasing political prisoners, privatising state-owned enterprises, and increasing the role of women in politics and the economy. In 2018, Abiy's government agreed to implement the peace treaty signed with Eritrea in 2000 entirely.

In the context of Ethiopian politics, it is vital to pay particular attention to the Oromo region, not only because of its political contribution as the largest and most populated province of Ethiopia but also its critical role in recent years. Although EPRDF is a coalition of various parties and tribes, Tigray and Amhara have always (particularly during the past three decades) carried the weight of political power. Therefore, the Oromo people have been considered oppressed despite their critical roles in the revolution against the Derg regime. As a result, most of the political unrest during the past decades was somehow rooted in the Oromo region. The appointment of Abiy Ahmed as the first Prime Minister from the Oromo region was indeed a massive change in the political climate of Ethiopia. Hence, the following section provides an overview of Oromia.

2.10 Oromia

Ethiopia consists of nine regions where Oromia and Amhara are the two most populated regions, with 34 and 21 million residences, respectively.

Oromo community is the most populous ethnic group with a population of 33m. After the severe famine and civil war in the Derg time, the region's annual population growth increased, leading to Oromia's population reaching 39 million in 1984. In 1994, the transition government implemented various population policies to match the pace of economic growth and the population (Hailemariam, 2019). It is envisaged that economic development would enhance the health and level of education so that life expectancy would rise. A greater life expectancy means longer work life and a higher workforce, which promote income per capita and contribute to economic growth. The critical question is, of course, do authorities have any plan to create jobs for this new wave of the workforce?

On the population structure, since agriculture was the engine of the nation's economy, most Ethiopians live in rural areas, and only 20% live in urban areas (Alemayehu, 2019). Urbanisation was not as developed as in other African countries, and the urban population in Ethiopia was 30% less than in Africa as a whole (Kanos and Heitzig, 2020). Owing to the fact that the focus of recent strategic plans such as GTPs has shifted from agriculture to industry, a change in the structure of the population is expected.

Oromos live in Ethiopia's south, central and western parts; Addis Ababa is part of the Oromia region. The common language is Oromo, and around 85% of people reside in rural areas. While Ethiopia is the second most populated African country (World Bank, 2018), Oromoia is the most populated region in Ethiopia. It is outstanding that more than 55% of Oromos are below 19 years old (national census 2016). Due to the diverse climate and natural resources, different regions vary in population density. Areas such as Oromia, with an altitude between 1500 and 2400 and fertile soil, are the most populated regions.

Similar to the other parts of Ethiopia, the region's economy heavily depends on agriculture; Gadaa.com reported that 90% of the population earns their livelihood through agriculture. Due to the excellent weather and fertile soil, various crops could be cultivated, which has a striking impact on not only the region's economy but also that of the country. It is worth noting that Oromia is the birthplace of coffee.

2.10.1 Oromia and Politics

Though it is the most populated region in Ethiopia, they experienced segregation, discrimination, and land loss for many years. In 1970, a group of students established the Oromo Liberation Front (OLF), which later evolved into an army organisation. Between 1974 and 1991, some OLF were arrested or forced to join Derg's army. In 1991, the Ethiopian People's Revolutionary Democratic Front (EPRDF) tried to dominate the Oromia area, which made the OLF take arms. This radical reaction was defeated, and OLF continued its existence while competing with other Oromo groups. The ruling party used this incident as an excuse to oppress the Oromo people more than before. Many Oromo students were arrested and tortured during their protest for protecting their rituals, numerous Oromo journalists and activists were detained, and several politicians were charged with various crimes (World Directory of Minorities and Indigenous Peoples - Ethiopia: Oromo).

In 2015, because of the expansion of the capital, Addis Ababa, many Oromo farmers were dislocated from their lands, and other groups were made to move into the Oromia area. These events provoked the community and sparked the students' protest. These protests were supported by farmers, workers and ordinary people. A year later, the government stated that it would stop the expansion. Although many were arrested and some were killed, Oromos did not rest and continued their fight against the government. An article published in February 2017 by the Guardian reported that Oromos are unhappy with the current government due to the poor economic situation despite being a resource-rich state.

In April 2018, Abiy Ahmed was elected as Prime Minister; he was the first Oromo who holds this post.

2.10.2 Economy of Oromia

Oromia is one of the poorest regions in Ethiopia and has a dysfunctional economy, despite being rich in natural resources such as productive soil and favourite climate. With more than 33m residents (HCE, 205/16), agriculture is unable to meet the economic needs of Oromos; hence a large part of the population is below the poverty line. A potential solution for this issue could be encouraging individuals to be more engaged in non-farm activities.

Dercon and Krishnan (1996), in their comprehensive research on 423 Ethiopian households, showed that the lack of feasible access to credit could limit the diversification in an earnings portfolio. Therefore, farmers have less tendency to change their traditional ways of living and earning. On the same note, van den Berg and Kumbi proved that if the entry barriers to non-farm a

Chapter 3. Literature Survey and a Discussion on Financial Literacy, Financial Inclusion, Trust, and Gender Disparity

3.1 Introduction

Most of the existing definitions and measurements of financial literacy have been tailored for developed countries. Hence, they lacked comprehensiveness in different contexts to adequately cover developing countries. Financial literacy and financial inclusion are usually assessed at the household level overshadowing the women's low level of financial literacy. In addition, various factors, e.g., socio-demographic characteristics, financial infrastructures, and trust, are affecting the level of knowledge and usage of financial services. Since financial services are intangible by nature, trust and its role in the finance context have attracted the attention of many researchers.

Hence, addressing the current state of the art in financial literacy, financial inclusion, and trust is the next step after introducing Ethiopia as the context of this research.

Overall, this chapter comprises three parts; first, I will review existing literature on financial literacy and financial inclusion. Then, the concept of gender disparity in financial literacy and financial inclusion will be examined, and the focus of the final part will be trust and its impact on financial literacy and financial inclusion.

In the first part, through a systematic review (more than 100 papers), I developed a native definition of financial literacy for developing countries. The proposed definition is characterised by demand and supply sides which awareness and need are related to the demand side while the supply side encompasses the availability of financial services.

This part will be started by explaining the conceptual framework of financial inclusion and financial literacy in order to have a clearer understanding of the following debates. This part is sought to identify the existing conceptual and practical definitions of financial literacy/financial inclusion and adopt the most relevant ones. The relationship between financial literacy and financial behaviour was then analysed. Does investing in financial literacy enhance access/usage of financial services? Does financial literacy influence by personal characteristics such as gender? These are the critical questions that the corresponding section attempts to answer.

The second part is a selective systematic review aiming to survey the existing financial training literature. The focus is on two main issues, namely, financial training and gender disparity in financial literacy. Based on a thorough literature review, this part identifies research gaps in each of these dimensions. The identified gaps are used to formulate two promising research ideas (PRIs). Specifically, the PRIs seek to investigate the gender disparity and propose a novel method for financial training.

The third part is about trust and its relevance in the financial system. Since trust has a habitual nature, as people generally tend to put their trust in a well-established system, it is critically complex in emerging economies where the financial infrastructure is subject to substantial changes through new regulations and opportunities. Ethiopia has gone through numerous social and political changes; therefore, assessing the level of trust in this context is of utmost importance. This part will properly review the current literature on this subject to understand the importance of trust in the financial system.

3.2 A Discussion on Financial Literacy and Financial Behaviour

3.2.1 Conceptual Framework: Financial Literacy

The Need for a New Definition

After Ahmad received his first credit card from Barclays, He was both excited and anxious. He did not know how his credit increased gradually and was apprehensive about withdrawing money from it. The credit card is a new financial product for him, though he was a bank officer. Because of political and financial sanctions, he did not have access to this service as an Iranian citizen.

This experience highlights a lack of access and availability of financial services due to geographical differences. Other factors, such as the general economic situation, policies, and socio-cultural agents, also influence access and usage of financial services. Hence, financial literacy should be considered a relative concept, and in the process of measuring it, different factors like the level of economic development, financial system, regulation, and financial inclusion should be considered; in better words, context should be acknowledged.

Still, it has been argued that globalisation facilitated access to financial services and products for customers; therefore, the context has less impact on financial literacy. Notwithstanding, there is a difference between the availability and accessibility of financial services. Lack of money, identity documents, time, internet, and even national law could hinder the accessibility of financial services. Nevertheless, what is the definition of financial literacy? What kind of explanation could be valid in various contexts? What are the main components of this concept? Did previous studies cover all the relevant factors? While there are different terminology of financial literacy used by different authors, they all still fall within the broad category of financial literacy.

Validity of Available Definitions

Despite the existence of numerous academic papers on financial literacy, there are no commonly accepted terms and criteria for this concept among scholars.

The main issue in defining the framework of financial literacy is the availability of financial services. Mason and Wilson (2000) pointed out in their book that the effectiveness of financial products and services depends on their availability. In other words, there is no 'one size fits all.' Country by country, the accessibility of financial services varies, and based on that, the required level of financial literacy differs. Some found it easier to describe as a skill and ability to read and understand statements (McDaniel et aI., 2002).

Later on, Xu and Zia (2012) stated that financial literacy could contain different concepts, such as financial knowledge and awareness, financial skills, and financial competency. Although these concepts seem to be different notions, they constantly overlap in practice. After analysing financial literacy around the world, authors recited that in Sub Saharan Africa, "...a large proportion of the population in countries such as

Mozambique, Malawi, and Nigeria lack awareness of basic financial products and concepts such as saving accounts, interest on saving, insurance, and loans" (p.9).

In another literature review, Remund (2010), after re-examining papers from 2000 to 2010, found that the definition of financial literacy in previous research was composed of five categories; conceptual knowledge, ability to communicate about it, skill to manage personal finance and to make a right financial decision, ability to plan for a financially secured future. Therefore, he stated that "Scholars, policy officials, financial experts, and consumer advocates have used the phrase loosely to describe the knowledge, skills, confidence, and motivation necessary to manage money effectively. As a result, financial literacy has varying conceptual definitions in existing research, as well as diverse operational definitions and values." This statement clearly shows that one standard definition for financial literacy is far to reach, and every context requires its criteria.

The Organisation for Economic Co-operation and Development (OECD, 2011) interpreted financial literacy as "a combination of awareness, knowledge, skill, attitude, and behaviour, which are necessary to make sound financial decisions and ultimately achieve individual financial wellbeing." Even in this definition, the issue of defining the ranges and limits of components could add to its complexity. Furthermore, financial literacy based on this definition was measured independently of the country variables and individual characteristics.

In a recent study, Carpena and Zia (2017) broadened the definition of financial literacy by adding numeracy skills, financial awareness, and attitudes toward personal finance to the concept of financial literacy. Their definition of financial literacy is detailed and simple to understand; nonetheless, separating these three dimensions is not an easy task. Numeracy could enhance awareness and attitude by facilitating the process of understanding the concepts and the benefits of financial services. Nevertheless, awareness could be a motivation to improve numeracy skills in order to exploit potential opportunities in the finance world. Other commonly accepted definitions of financial literacy have been summarised in Table 3.1.

Table 3.1 Other definition

Authors (year)	Definition used	Measurement used	My comments
Chen and Volpe (1998)	Personal financial knowledge	Through a questionnaire with 52 questions, and the mean percentage of correct scores for each question	Actual and perceived knowledge differ, the former would bring financial skills and behaviours. Lengthy questionare
Mason and Wilson (2002)	an individual's ability to obtain, understand and evaluate the relevant information necessary to make decisions with financial consequences.		They did not introduce any measure.
Beal and Delpachitra (2003)	the ability to make informed judgements and take effective decisions regarding the use and management of money	By the survey instrument. Responses were marked and the percentage of correct responses for each question calculated.	In designing this questionnaire, target population was selected from university students, hence it is not proper for individuals with lower level of education.
Moore (2003)	"Individuals are considered financially literate if they are competent and can demonstrate they have used knowledge they have learned".	By a three parts questionnaire which covered Financial knowledge, experiences, and behaviours. Responses were marked and the percentage of correct responses for each question calculated	Questions were too long and part of another study on socioeconomic
Hilgert, Hogarth, & Beverley (2003)	Financial knowledge	Through questionnaire and it equals the number of correct answers to a financial knowledge test	Financial literacy is not a single dimension concept. Financial skills and behaviours are part of financial literacy.
FINRA (2003)	"The understanding ordinary investors have of market principles, instruments, organizations and regulations"	Through a false/true questionnaire	Investment was the focus of this definition and its measurement
Mandell (2007)	"The ability to evaluate the new and complex financial instruments".	Through a questionnaire with 31 items, and it equals the percentage of correct answers to a financial knowledge test	Just knowledge aspect was considered.

PACFL (2008)	the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial wellbeing	This report was not an empirical work and did not introduce any measure to evaluate the level of financial literacy.	
Hung et al. (2009b)	knowledge and ability to use that knowledge and other financial skills	They used Cronbach alpha (alpha between 0 and 1, .7 is ideal).	They used data dataset provided by RAND's American Life Panel (ALP).
Lusardi and Mitchel (2007 and 2009)	"the most basic economic concepts	Through questionnaire on three basic concepts; interest rates, inflation, and diversification. Responses	Level of financial literacy assessed at the household level.
	needed to make sensible saving and investment decisions"	were marked and the percentage of correct responses for each question calculated	
Tayler (2010)	He defined a multidimensional index	He applied factor analysis and regression score on data from the British household's panel survey	Collected data was part of the other social study and the scope of study only covered British people.
Atkinson and Messy (2012)	[a] combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well being	Through questionnaire and it equals the percentage of correct answers.	This study was a part of a larger research on financial inclusion, and financial literacy was assessed at the household level.
Oanea and Dornean (2012)	Financial literacy implies a persons' minimal knowledge about financial terms such as money, inflation, interest rate, credit and others, but besides this the abilities and skills of that person to use all this information in personal life.	Through questionnaire and it equals the percentage of correct answers.	The sample was drawn from a predetermined population which could reduce the reliability of results.
Zait and Bertea (2015)	In order to operationalise the concept of financial literacy they suggested that it has five aspects; knowledge, communication, ability, behaviours, and instruments, confidence.	By a questionnaire which covered all aspects with minimum 60 items.	Part of the questionnaire is related to personal finance which is private and normally people are not willing to give information about it.
Zia and Carpena	Financial literacy is a multidimensional	Through questionnaire which covers three	Since there is a strong interaction among these

(2018)	concept includes comprehensive, awareness and attitudes.	dimensions; comprehensive, awareness and attitudes. Responses were marked and the percentage of correct responses for each question calculated	three dimensions, separating their impacts is difficult and complicated.
Nanziri and Leibbrandt (2018)	They combined the definitions of finical literacy from Atkinson et al. (2007) and the OECD (2009) to describe financial literacy in South Africa. Their definition had two main dimensions; financial knowledge and financial capability.	They constructed a composite index for financial literacy by using the Principal component analysis (PCA). The average score of the index was calculated to measure the level of financial literacy.	Based on the available data (Finscope pooled surveys 2005–2009), financial literacy was measured which could act as a limit.

Studies that purported to document financial literacy generally have indicated that financial literacy is beneficial, but people need to have a higher level. Thus, there should be some plans or programs to improve the level of financial literacy. In these studies, through financial literacy, credit access for the house mortgage was more feasible (Courchane et aI., 2008), planning for retirement was easier (Lusardi and Mitchell, 2007), and in the case of young adults, was related to happier and overall life satisfaction (Shim et aI., 2009). These were pointed at a more financially inclusive society and the emerging idea that financial literacy could hinder financial exclusion (Jones, 2008). Previous studies also acknowledged the different roles of financial literacy in various economic situations. In high-income countries, the goal of financial literacy is customer protection, while in low-income countries, the aim is to increase access and take-up services (Xu and Zia, 2012).

One of the fundamental definitions of financial literacy was proposed by Huston (2010). Her version of financial literacy has been composed of two dimensions, financial knowledge/understanding and the ability to use this knowledge. Based on her argument, this concept is distinct from financial knowledge and has a broader spectrum. Personal finance, borrowing, saving/investment, and protection are the main themes in her definition. She argued that the lack of a universal definition for financial literacy is one of the most challenging obstacles to developing a harmonised measure. She also put the comprehensiveness and clarity of available measures under scrutiny.

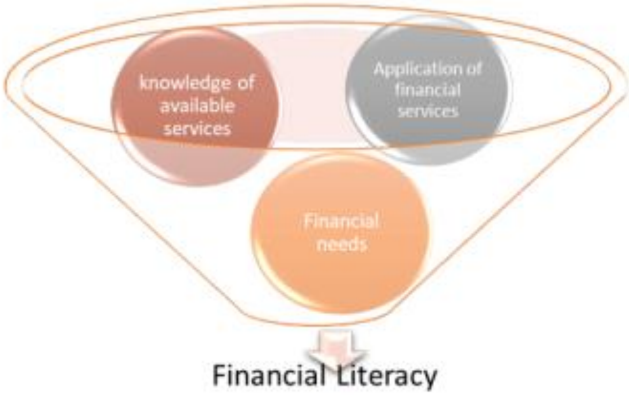
In 2019, Nicolini published a book on financial literacy, "Financial Literacy in Europe". He started his book with a semantic analysis of financial literacy, and based on this, and defined it as "competence or knowledge in the management of money". At the end of Chapter 1, after reviewing all the relevant papers, he suggested that financial literacy is knowledge of financial notions and the ability to use that knowledge. He describes financial literacy as a process that "starts with knowledge, passes by ability and arrives at effective financial decisions" (Figure 3.1).

Figure 3.1 *Financial literacy By Nicolini (2019)*

Towards a New Definition

I define financial literacy as "the awareness and knowledge of exploiting the available financial services from essential financial needs to potential financial inclusion." In our quest for understanding the nature of financial literacy, it appears that the time factor plays a crucial role in developing countries. A financially literate person could become illiterate just in a few years; hence, the learning process should be an ongoing process. This concept is characterised by demand and supply sides, awareness, and need are related to the demand side, while the supply side encompasses the availability of financial services. In order to justify the proposed definition, the following part will analyse the components of financial literacy in detail and assess its relationship with financial inclusion (Figure 3.2).

Figure 3.2 The proposed definition of financial literacy



Components of Financial Literacy

Financial literacy is composed of finance-related knowledge, yet knowledge without application is futile. Furthermore, apprehending all the topics and subjects encompassed by this knowledge is impossible and useless. Hence, the first step in defining financial literacy is establishing its boundaries. Considering the variety of financial services, there are several ways to classify them. From the standpoint of the supply side, it is rational to divide them into two groups; general services and more specific ones. General services typically have a similar structure in different countries; nonetheless, in some places, some services such as credit cards and international remittance are not available due to internal or external circumstances. The specific services include those which are designed uniquely for a particular context, namely ISA in the UK. From the demand side perspective, services could be accessible or not accessible. In other words, some services might be available but not accessible.

Two factors have an impact on the accessibility of available services; awareness and financial means. This implies that an individual should be aware of their financial need to demand available services. So, it is reasonable to say that financial need is a hidden variable since it is not perceived yet. In order to be comprehended, the presence of financial literacy is necessary. However, this process, without the existence of the essential means such as money, time, identity documents, and abilities and skills to use the service, is ineffective. These two factors, needs and means, are complementary to turning an available service into the accessible one (Figure 3.3).

Figure 3.3 *The difference between available and accessible financial services*

With all that said, measuring the level of financial literacy in a more harmonised way is a challenging task. In this context, Nicolini (2019) argues that the process of measuring financial literacy should be easy and understandable, also suitable for various needs and knowledge in order to distinguish the different levels of financial literacy of individuals.

Measuring Financial Literacy

Although many scholars put forward cogent arguments that financial literacy is not just knowledge, the level of financial literacy has been measured by assessing the knowledge. Financial knowledge is the critical element of financial Literacy (Huston, 2010); still, acknowledging it as the indicator of financial literacy is banal. Huston (2010) reasoned that financial knowledge comprises four concepts; money related issues, saving or investment, borrowing and protection concepts.

Concerning the approach, financial literacy was measured subjectively (self-assessment) or objectively (professional assessment). Other researchers used both methods to study the relationship between financial behaviour and personality traits. Unfortunately, the risk of being overconfident often dims objective or self-assessment. The professional assessment encompasses numerous methods; the sum of the correct answers, answering all questions correctly, answering a specific question, IV test, and factor analysis (CFA, PCA, cluster analysis). All these methods have their own applications and goals; measuring general knowledge, knowledge-assessment of the particular topic, impact evaluation, identifying key factors and studying the relationship between financial literacy and financial behaviour. Some scholars even used more than one measure of financial literacy in order to increase the validity of their results.

Remarkably, financial needs have a dynamic nature, and their impact on wellbeing alters by age. Hence a higher level of financial literacy for youngsters and retired people is unnecessary. As a result, financial literacy from the perceived static state turns into a dynamic process that "starts with knowledge, passes by ability and arrives at effective financial decisions. (Nicolini, 2019)". The dynamic nature of financial literacy makes it impossible to be always updated and in command of making a good financial decision.

For measuring financial literacy, different elements, such as the country's economic situation, people characteristics, and the availability of services, should be held accountable. Lusardi and Mitchell (2011) stated that although evaluating the level of financial literacy and people characteristics are vital, examining how people process financial knowledge and make a financial decision is not an easy task. Therefore, measuring financial literacy is not just a quantitative matter.

Since financial literacy includes many different concepts from knowledge to financial skills and financial capability, considering all of these notions in a survey would be difficult. However, Lusardi and Mitchell (2011) adopted the questionnaire of the American Health and Retirement Study (HRS) for measuring financial literacy, which has been regularly used by other researchers since then. This questionnaire includes three questions on interest rate compounding, inflation, and risk diversification. The first two questions would also capture the numeracy skill, and the third one would assess the knowledge of the stock market and mutual funds (Table 3.2).

Table 3.2 Financial Literacy Questions (Lusardi and Mitchell, 2011)

	Financial Literacy Questions (Lusardi and Mitchell, 2011)	**a**	**b**	**c**	**d**	**e**
1	Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?	More than $102	Exactl y $102	Less than $102	Do not know	Refuse to answer
2	Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?	More than today	Exactl y the same	Less than today	Do not know	Refuse to answer
3	Please tell me whether this statement is true or false. —Buying a single company's stock usually provides a safer return than a stock mutual fund.	TRUE	FALSE	Do not know	Refuse to answer	

Nevertheless, other empiricists argued these three big questions might need to be modified, particularly in the case of developing countries where lack of basic knowledge and skills is widespread (Carpena and Zia, 2017). Therefore, modifying the current models or adding more criteria could help the researcher in collecting more accurate data. Carpena and Zia (2017) used their own set of questions to measure financial Literacy in India to investigate the causal mechanisms between financial education and financial behaviour. They focused on three distinguished aspects of financial literacy; numeracy, awareness, and attitude (Table 3.3).

Table 3.3 Financial literacy questions, Carpena and Zia (2017)

	Questions	**a**	**b**	**c**
Numeracy	Let's assume that you deposited Rs. 10,000 in a bank account at an 8% monthly interest rate. How much money will you have in your account in one year if you do not withdraw from or add to this account any money?	More than 10,800;	Less than 10,800	Exactly 10,800
	Suppose you had Rs. 50 to save. You could either save this for 1 month in an account which earns 14%	14% per month	2% per week	

	interest per month or save it for 1 month in an account that earns 2% interest per week. Which would you choose?					
	Questions	a	b	c		
Awareness	Shantiben is preparing a budget for her household. Which of the following needs to be included in the budget?	Income only	Expenses only	Income and expenses		
	Do you think you can open a savings account in a bank with amount as low as Rs 50?	Can open an account	Cannot open an account			
	If I have a savings account in a bank and the bank closes down for some reason, will I get my money back?	Will get my money back	Will not get my money back			
	Manojbhai recently borrowed some money from a local moneylender. He wanted to buy some clothes for his children for Diwali (festival). What do you think about Manojbhai's loan?	It is a productive loan	It is an unproduc tive loan.			
	Questions	a	b	c	d	e
Attitudes	Rameshbhai does plastering on tall buildings. It is a dangerous job and he is worried that if he gets injured his family's income will become inadequate to meet their needs. If Rameshbhai comes to you for advice what would you suggest?	Take up some other (different) work	Purchase health / life / accident insurance	Increase savings		
	Vimlaben has a very bright child who is currently in secondary school but will probably do well in university. She is worried how her family will pay for the child's education. If Vimlaben comes to you for advice what would you suggest?	Buy child life insurance policy	Borrow money from a lender	Open a savings account in a bank	Save at home	Discont. education
	Do you think making a budget is helpful?	Yes,	No			

3.2.2 Conceptual Framework: Financial Inclusion

How to Define Financial Inclusion

The most detailed definition of financial inclusion belonged to Atkinson and Messy (2013). They described it as "the process of promoting affordable, timely and adequate access to a wide range of regulated financial products and services and broadening their use by all segments of society through the implementation of tailored existing and innovative approaches including financial awareness and education to promote financial wellbeing as well as economic and social inclusion" (Atkinson and Messy, 2013).

While the version of the World Bank differs a bit and puts more weight on the actual users of financial services, "financial inclusion is defined here as the proportion of individuals and firms that use financial services" (World Bank, 2014). In a more recent description, they described financial inclusion as a state in which "... individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit, and insurance – delivered in a responsible and sustainable way" (World Bank, 2018).

The Consultative Group to Assist the Poor (CGAP) aimed to build "a world where poor people are empowered to capture opportunities and build resilience through financial services" (CGAP, 2018). The notion of capturing the opportunity quoted above in the CGAP definition points to the access dimension of financial services, which in the case of poor households in developing countries might be constrained by various barriers, for example, the lack of income to open a bank account. Access is one dimension of financial inclusion, but inclusiveness would not occur without usage. Unfortunately, in the case of many emerging markets, the provided access is not feasible and does not motivate or facilitate usage. Hence, in every inclusion-oriented program, determinants of financial inclusion should be identified and specified for that region.

Nonetheless, based on the index of financial inclusion (IFI) (Sarma, 2011), even in developed countries, part of the societies is still financially excluded. The financial inclusion index measures the level of inclusiveness of the financial sector in a country (Sarma, 2011). Sarma, through this index, computed three fundamental aspects of financial inclusion, accessibility, availability, and usage of banking services.

3.2.3 Financial Literacy and Financial Inclusion: Pragmatic Outlook

In response to the question of whether financial literacy has an impact on financial inclusion, Grohmann et al. (2018) did cross-country research on the demand side variables such as financial literacy and the supply side of financial services. They presented evidence on the positive impact of financial literacy on access and usage of financial services and showed this effect performs independently from that of infrastructure. The authors stated that financial literacy has a positive effect on access to, usage and quality of financial services and products. They also suggested that financial literacy could act as a complementary element for infrastructure and increase usage in the case of more developed financial systems.

However, in less developed systems, financial literacy acts as an alternative for financial infrastructure in order to improve access. Their results related to the gender and level of financial literacy exhibited that women are scored less than men, and the gender gap between owning a debit card and formal savings is around 10%.

Is financial literacy sufficient on its own? Even in underdeveloped countries, youngsters absorb financial knowledge and skills, and it has little impact on their economic wellbeing unless they have appropriate access to financial institutions and services (Johnson and Sherraden, 2007). Hence, it is fair to say that knowledge is helpful in leading a fulfilling life but not enough. There should be skills and abilities to act based on that knowledge, and there should be possibilities to use it.

Based on the proposed definition, financial literacy has a close relationship with financial inclusion. Financial literacy should cover the awareness of needs and availability of services and also abilities and skills to use these services. Nonetheless, a financial service or product should be available before becoming accessible. Availability of financial services is closely related to financial inclusion; therefore, financial literacy is capped by the level of financial inclusion in each context. It is also debatable that financial literacy could be classified into basic Literacy (related to more fundamental concepts and general services) and advanced Literacy (encompasses more complicated and specific services). In more developed countries, the complexity of services is sometimes out of the individual's financial literacy; hence, the demand for financial consultancy services would increase.

It should be noted that in societies that are financially excluded, the availability and access to financial services are limited. As a result, the possibility of using financial skills and knowledge is low. The underlying assumption in these analyses remains that an individual has adequate awareness with regard to their financial needs. Otherwise, even in the presence of the available services, accessibility will not happen. The fundamental point is that the relationship between means and awareness is complementary, not substitutionary.

3.2.4 Financial Literacy and Financial Behaviour: Turning Knowledge into Action

There is a growing body of literature on financial literacy and financial behaviours, but most focus on developed countries. Among the fundamental principles of a financially secured future, financial literacy and the skill to use this knowledge are of vital importance (the importance of access to financial services should not be neglected). There are different microeconomic models on the positive relationship between financial literacy and saving behaviours. Albeit, this awareness comes at a price, and not everyone could able to engage in a complicated economic formula. This part is going to review previous studies on the relationship between financial literacy and financial behaviour and suggests some promising research ideas.

The Theoretical Framework

Many theoretical models describe the impact of financial literacy on financial behaviours, but the results of experimental research are controversial. On the one hand, empirical evidence suggests that a higher level of financial literacy would improve financial practices such as savings, budgeting, and spending; however, the availability of financial resources also has an important role to play (Perry and Morris, 2005). Moreover, literate individuals try to plan for their retirement (Lusardi and Mitchell, 2007) and seek a lower credit rate (Lusardi and Tufano, 2015). On the other hand, a research group from the United States (Cole and Shastry, 2014) found that financial literacy has little impact on saving and investment by using a large dataset. Also, there are indications that in low-income families, a higher level of education and financial awareness would not certainly improve the family's financial management

(Loke, 2016).

The conventional microeconomic theory on saving declares that financially aware individuals spend less and save more in a prosperous period in order to be financially more resilient in a time of financial shock. Lusardi and Mitchell (2014) posited that various microeconomics models on saving and consumption assumed that individuals have a good level of financial literacy to have sound financial behaviour. Nonetheless, due to the change in financial situation, age, education and earning (life cycle), proving a causal link between financial literacy and financial behaviour is challenging.

The Relationship Between Financial Literacy and Financial Behaviour

Fernandes et al. (2014) presented a meta-analysis study on the relationship between financial literacy and behaviours in 168 papers which comprised 201 earlier studies. They divided previous studies into two categories; "manipulated financial literacy" and "measured financial literacy". The first group included those studies evaluating the impact of the financial intervention in which applying technics such as RCTs or double differences were prevalent. At the same time, the second category encompassed correlational and econometrics studies, which aimed to measure financial literacy.

The result of "measured financial literacy" studies reported a more substantial impact on financial behaviours compared to those of "manipulated financial literacy". The authors also emphasised psychological traits that have been omitted in the earlier studies. They argued that psychological features such as self-control and impulse control could be partially responsible for certain financial behaviours. Furthermore, they reasoned that the effect of financial education on financial practice could get weaker over time; thus, considering the teachable moment's concept could increase the intervention's efficiency.

The way that Fernandes et al. (2014) analysed the effect of psychological characteristics was highly detailed; however, they were not the only researchers who focused on this issue. Perry and Morris (2005) previously remarked that the locus of control (LOC) could be a channel in which financial knowledge influences financial behaviours. In other words, perceived control would improve saving, budgeting, and spending.

It has been shown that financial literacy and financial access have interaction; now, the question is how to separate them from each other. To solve this problem, applying a proper method, such as RCTs, to measure and entangle the impact of financial literacy and financial access is crucial.

Concerning saving behaviours, many researchers attempted to pinpoint the drivers of saving behaviours. For instance, Deaton (1989) demonstrated different factors such as interest rate and the quality of financial institutions as the determinants for saving. He proposed the theory of saving in developing countries based on people's precautionary measures. Berry, Karlan, and Pradhan (2018) concluded that financial literacy supports saving accumulation after conducting an RCT in Ghana to study the impact of financial education on Ghanaian students. Nevertheless, they failed to provide any evidence on the short-term effect of these types of programs. In their research in Chile, Hastings and Mitchell (2011) marked illiteracy and present bias (impatience) as the possible explanations for poor financial decisions.

All of these studies support the positive role of financial literacy on access to and usage of financial services and products

Mechanism

According to the financial practice index constructed by Hilgert, Hogarth, and Beverly (2003), financial literacy seems to be positively related to financial behaviours such as cash management, credit management, saving, and investment, but what is the link? They have stated that an increase in knowledge could enhance financial practices; however, this causality could also follow in other directions.

In a very different study performed by Huis et al. (2017), the reverse causal chain between their measure of financial literacy and financial inclusion among women was assessed. They studied the effect of women's microfinance programs on their social status and suggested that providing microfinance would increase their financial literacy and empower women, especially in households budget management.

The difference between these two types of methods, direct causal and reverse causal chain, is the way that financial literacy is provided. It seems that the reverse method is more practical, and there are reasons to choose it over the direct one, namely, first, not all individuals are motivated nor have access to attend a training program. Second, absorbed knowledge through the experience is less forgettable compared to learnt materials from the direct method. Moreover, the reverse method induces a change in financial behaviours, such as saving, but the other often does not.

The Value of Practical Learning: Tacit Knowledge vs Codified One

Altering financial behaviour could easily change the level of financial literacy. This dimension of the relationship between financial literacy and financial behaviour is not considered in the available definitions. Nevertheless, the suggested definition puts more weight on the availability of financial services, which implies the reverse mechanism could enhance the efficiency of financial training programs.

In high-income countries, to emphasise the importance of financial awareness and provide equal opportunities, financial management responsibilities such as pensions and mortgages from the public sector to individuals (both men and women) have been transferred. In contrast, sophisticated financial services and products in low-income countries could be available only to the elite minority, especially men. Consequently, the importance of financial literacy in enhancing the level of access and usage of financial services attracts strong attention.

3.2.5 A Pragmatic Outlook

In this selective and systematic analysis, a new definition was suggested, composed of financial needs, financial awareness, and availability of financial services. The proposed definition is characterised by both demand and supply sides, where financial awareness and financial needs are related to the demand side. In contrast, the supply side encompasses the availability of financial services. Furthermore, since financial literacy and financial inclusion are of great importance to deal with the emerging issues in developing countries, the inaccuracy of such definitions may be misleading, as has been partially discussed here.

Concerning the relationship between financial literacy and financial inclusion, most of the existing literature empirically demonstrated that an increase in the level of financial literacy could enhance financial behaviour. However, the proposed definition, which emphasises the availability of financial services, can project the pattern the other way around. This means that providing feasible access to financial services could be an effective method to improve the level of financial literacy.

In the present quest for understanding the nature of financial literacy, I found out that financial literacy has different components. Hence, there are different ways of measuring it. Thus, I need to develop a measure that concentrates upon crucial elements in order to have a practical and useful measurement. First of all, I need to evaluate the country's macroeconomic situation and determine the level of development. Then, assessing microeconomic factors of the target group such as income level, education, access to financial services, and social status should be considered. Subsequently, a proper method for measuring financial literacy could be designed. All of these tasks are vitally required owing to the fact that financial literacy is a relative term and depends on the financial system of the place where the target group resides (Brascoupe et al., 2013).

3.3 Are Women Invisible? A Literature Survey on Gender Gap and Financial Training

Inequalities are the common characteristics in all societies, and fighting against them is the unique symbol of the new era. In this sense, the gender difference in access and usage of financial services has become debatable among researchers. Though many efforts have been made to eliminate this inequality, it is not reduced significantly and is persistently observed. Unfortunately, this gap is striking in financially underdeveloped countries, and women are denied an education because of socio-economic factors. Some associated this disparity with the lower level of financial literacy among women compared to men; however, the level of financial literacy is not satisfactory even among men.

The relevance of gender to financial behaviours has been widely discussed in the literature (Fisher, 2010). There is no clear evidence that financial literacy is lower among women than men (Lusardi and Mitchell, 2007). It is believed that women do not pay enough attention to financial matters. Since they live longer and their work-life is shorter, the possibility of encountering financial crises is higher. In general, women are less likely to have a plan for old age as opposed to men (Lusardi and Mitchell, 2007). Hence, probing the roots of this difference to eliminate it is the primary way to secure women's financial future, especially in underdeveloped countries.

In this context, I start by reviewing the existing literature on gender inequality in financial literacy and financial behaviours and its causes. If there is any gap, how to close it? How to improve the level of financial literacy among women? And more importantly, what is financial literacy?

As Sholevar and Harris (2019) defined financial literacy as the awareness and knowledge of exploiting the available financial services from essential financial needs to potential financial inclusion, an effective program should consider the needs and availability of financial options in every context. They argued that this concept is characterised by demand and supply sides; whilst awareness and need are related to the demand side. At the same time, the supply-side encompasses the availability of financial services.

Financial literacy is the leading player in making a sound financial decision, which improves the level of welfare and has a significant impact on economic development. Yet, how can we identify financially literate and illiterate individuals? What kind of programs are required to improve the process of financial decision-making?

After the 2008 financial crisis, concern about the level of financial literacy among consumers has risen, and as a consequence, the number and type of educational programs have been massively increased. Many of these informational programmes provide financial information about financial services and products. However, the critical question is whether giving information can change financial behaviours? What is the connection between 'what to know' and 'what to do'? How can financial literacy programs be more effective? More importantly, could financial literacy be taught? It is evident that a proper education or training with regard to financial matters would be necessary to reduce financial illiteracy.

It seems that financial training could assist in solving this problem; hence, the next part will be focused on financial interventions. Does improving the level of financial literacy have any impact on people's economic wellbeing? This section will discuss the effect of financial training on financial behaviour.

The final section is a conclusive outlook of all concepts thoroughly covered in this part.

3.3.1 Gender Gap and Its Drivers

Financial literacy and financial behaviour have a close relationship; however, this link during the time and change of circumstances would change. As a result, the disparity in the level of financial literacy among different groups of the community could be observed, especially in those with regard to gender.

Problem Statement

In financially underdeveloped countries, the gender difference is bolder than in developed ones, and rules and norms favour men more than women. The higher life expectancy, shorter working life, and rapid changes in the financial markets have made women more vulnerable than men. Furthermore, the role of making financial decisions are normally played by men rather than women, which widened the gender gap in financial literacy. Notwithstanding, inequality in provided resources for financial literacy is the leading cause of the gender gap. Finding a solution to facilitate women's access to financial services and enhance their financial knowledge could improve financial behaviour.

Managing money has become a common problem for everyone, given the rising complexity and diversity of financial services, especially for women from under-developing countries. Although there are numerous works on financial literacy and its importance in the literature, the function of gender in this field has been neglected or has not received the attention this imperative matter requires.

As for financial literacy, many different organisations, through surveying, measured financial literacy worldwide and revealed that women are less financially literate than men, and they are aware of their scarcity in financial literacy (Bucher-Koenen et al., 2017). But to the best of our knowledge, there is no work focusing on assessing their willingness to learn more. Lusardi and Mitchell (2011) suggested that age and gender influenced financial knowledge, as women and older generations had lower financial literacy than other groups.

A few research teams tried to root out the gender disparity in financial literacy.

For example, an American team (Fonseca et al., 2012) used the collected data from the RAND American life panel and tried to explain the gender gap in financial literacy through the Blinder–Oaxaca decomposition method. They argued that the channel in which women absorbed financial literacy had more effect on the gender gap in comparison with an individual's traits. For instance, financial decision-making in the household could increase the level of financial literacy for men; nonetheless, there is no such certainty in the case of women. The way they tried to explain the gender gap and its causes was novel and innovative, yet the assumption of homoskedasticity was not maintained in the argument.

Roots of Gender Disparity in Financial Literacy

Lusardi et al. (2017) showed that the root of differences in financial literacy was related to its benefits, which varied from person to person and are influenced by gender. Typically, women in developing or even developed countries suffer from inequality in providing resources for financial literacy because of different stereotypes and beliefs (Driva et al., 2016). Cupak et al. (2018) decomposed the gender gap in financial literacy in 12 countries to determine its drivers for social and political factors.

They applied the revised version of Blinder–Oaxaca (B–O) counterfactual decomposition method (Blinder, 1973; Oaxaca, 1973) over the more than 12000 observations from the OECD/INFE (International Network for Financial Education) survey of adult financial literacy competencies. This method, which was previously practised by Fonseca et al. (2012) to assess gender disparity in financial literacy, disintegrated this gap into explainable and unexplainable.

Their results implied that around 70% of the gap in their data was related to the unexplainable part, which could be associated with social and economic factors. For example, in the more developed countries, the gender gap was more extensive compared to previously communist countries, which pointed to the social and political structure of the country. The explainable part was related to personal characteristics such as education, age, and income level. Although they enhanced the Blinder–Oaxaca (B–O) method of the decomposing gender gap, comparing the coefficients is not straightforward due to the different sub-samples and variances.

As for the research context, it is a well-known fact that there is less empirical data focused on women from developing or underdeveloped countries. While there are recent works in the literature recording the lack of financial knowledge among women and the gender gap, most of them are at the cross-country level or evaluated gender disparity in affluent countries. A few studies on socio-economic factors cause inequality in financial literacy and access/usage of financial services within a country. Mainstreaming tribals through financial literacy by Nanda and Samanta (2018) is a good example. They reviewed the available literature and concluded that mismanaging money resulted from financial illiteracy and social exclusion.

In 2011, Mastercard Worldwide surveyed an index of financial literacy for women in 24 countries from Asia, the Middle East, North Africa, and Sub-Saharan Africa. Their results revealed the level of income was not necessarily related to financial literacy; for instance, women from Thailand (i.e., a developing country) had a higher level of financial literacy than Korean females (i.e., a developed country). Regarding financial access/usage, they reported that women and men from middle east markets had relatively equal financial literacy, except for Saudi Arabia, where women scored higher than men in money management and planning. Although women scored less than men in Africa, they were more or less similar in terms of financial literacy.

Because men hold more power than women in the group-based social hierarchies (Sidanius & Pratto, 2001) and recognise that power is gendered (Pratto et al., 2011), women inevitably suffer from inequality. The longer life expectancy, shorter employment period, and lower-income or benefits (Weir and Willis, 2000) made women more vulnerable to have financial difficulties. In this context, a group of researchers from the University of Southern California (Zissimopoulos et al., 2008) stated that marital status had a significant impact on economic wellbeing by using the RAND American life panel data. They showed that unmarried, especially divorced women, had considerably lower capital as compared to married couples and unmarried men.

In their work, Allen et al. (2016) confirmed that poor women who lived in remote areas were more likely to be excluded from financial services. Ghosh and Vinod (2017) found similar evidence that attested women were more vulnerable to exclusion. In 2012, Behrman and Mitchell (2012) probed the relationship between financial literacy and wealth accumulation. They implied that investments in financial literacy probably would increase economic wellbeing. Bulte et al. (2016) presented similar results and showed that the business training for females significantly affected their inclusiveness, promoted entrepreneurship among them, and increased profits.

A New Perspective on the Gender Gap

My Ethiopian friend, Asrate, is a street seller. She supplies local people with fresh fruits and vegetables. Though she doesn't speak English, she keeps accurate accounts of her customers in a very accurate way. She does not have a mortgage or a complicated pension, yet, she has her saving account and transfers money to her son in another country every month through A financial company named Western Union. Asrate's situation is not uncommon in Jimma. Even in the presence of the male head of the household, women like her are often the sole breadwinners. But whereas Asrate's example and that of the many other women like her indicate the level of financial literacy in Jimma may not be as bad as it is perceived. Studies have recorded that the gender difference is more acute in financially underdeveloped counties.

The financial rules and norms in underdeveloped and developing countries often favour men. The higher life expectancy, shorter working life, and rapid changes in the financial markets make women more vulnerable. Men typically make financial decisions, which widens the gender gap in financial literacy. Inequality exists in resources for financial literacy, and therefore, a solution to facilitate women's access to financial services and enhance their financial knowledge suggests financial behaviour might be strengthened. For this purpose, the presence of detailed information on financial literacy and financial behaviour of women is essential.

Despite the existence of big data on financial inclusion and financial literacy, the absence of relevant data on women is exhibited; even in the case of existence, the impact of gender would be slipped away from the key findings in the final report. The latest report on financial capability in the UK (Fincap, 2019) covers some data on financial literacy as well. The only gender-based provided data in the final report is related to budgeting behaviour, which demonstrated women are more conscious about the account balance than men. Unfortunately, the impact of gender on financial wellbeing has been neglected in this report.

As for studies concentrated on gender and its impact on financial literacy and financial behaviour, two distinct approaches were observed; measuring inequality in financial literacy and assessing the risk-taking tendency. The outcomes of those from the first category revealed that the level of financial literacy of women is lower than that of men (Lusardi and Mitchell, 2009), and those in the second group showed women have less tendency to involve in risky financial behaviour. The former was documented in several studies by well-known scholars, but its drivers were mostly determined through surveys. Other researchers applied other methods, such as the Oaxaca–Blinder decomposition technique (Fonseca et al., 2012, Cupak et al., 2018). The risk aversion behaviour in women was also studied widely since it has immediate relevance for many economic matters.

In 2015, GFLEC published the results of the Standard & Poor's Ratings Services Global Financial Literacy Survey, which illustrated a positive disparity in Mexico, Japan, the UK and South Africa. This phenomenon in Mexico resulted from increased access to formal financial services, which were gender-oriented. Between 2012 and 2018, the gender difference in access to financial services declined, and the proportion of adult women with access grew 2% more than that of men during the same period (Andrade and Buvinic, 2019).

Results from S&P (2015) and Findex (2014) illustrated that Japanese women had a higher financial literacy and saving accounts than Japanese men. In 2016, the Central Council for Financial Services Information conducted the second round of financial literacy surveys of 25000 individuals. There was a 14% gender gap with regard to financial literacy, and women exhibited a higher level of loss aversion, which resulted in lower investment behaviour. Kadoya and Khan (2017) used this dataset to demonstrate that although men have a higher level of financial literacy and financial knowledge, women are better decision-makers regarding financial matters.

Concerning access to financial services, the global Findex reported a higher percentage of account ownership and saving in financial institutions for Japanese women between 2011 and 2014 in comparison with men. In 2017, the figure for account ownership in financial institutions was 98% for both men and women, but men saved 3% more than women. From 2011 to 2017, men always exhibited a lower rate of owning a debit card in this country.

Although in the S&P report (2015), British women had a higher level of financial literacy, in the finding from the analysis of the 2018 financial capability survey of British adults, women were characterised by a lower level of financial numeracy and financial confidence, less tendency for securing the old age, and less interested in getting financial advice. Notwithstanding, the level of engagement with money and spending self-control was higher among women, which led to wiser financial behaviour such as keeping track, managing credit use, and adjusting spending; all of these would increase financial resilience in the long term. Hence, similar to Japan, female residents of the UK are savvier with regard to financial behaviour. The outcomes from the financial literacy assessment conducted by OECD in 2012 and 2016 manifested a massive gap in financial knowledge among men and women.

As for South Africa, the OECD's financial literacy reports from 2012 (Atkinson & Messy, 2011) recorded a weak gender effect on financial literacy in South Africa. However, the second round in 2016 displayed a 6% difference between men and women. It is striking that women scored higher in financial attitude. Nanziri and Olckers (2019), by analysing the results of the National Income Dynamics Study (NIDS) survey, stated that there is no gender gap with regard to financial literacy in South Africa.

In Japan, the UK, and South Africa, the proportion of women who received public pensions was more substantial than men (Findex, 2017). By acknowledging all facts, it is fair to say the root of gender disparity is more related to nature rather than nature. In this context, Filipiak and Walle (2015) explained that in matrilineal (female-dominated) states of India, where women are in charge of making financial decisions, there is no disparity with regard to financial literacy. The interesting point of this research is paying attention to the value system of different cultures in a country and comparing the results from matrilineal regions with patriarchal ones in India. This comparison showed a huge gender gap in financial literacy in more male-dominant areas. In line with this work and based on the social cognitive theory of gender development, Agnew et al. (2018) noticed that different financial socialisation at home is the probable reason behind the gender gap and the family structure plays an essential role in nurturing financial skills.

Hung, Yoong, and Brown (2012) suggested that the gender gap in financial literacy staged major problems for social balance. If human capital is considered the primary input for social and economic growth, the participation of women will accelerate this process. Because of a significant increase in the number of educated women and changing patterns in their social position, paying attention to their social and economic rights as active members of society is of utmost importance. In these circumstances, the emerging financial markets could be viewed as providing fair opportunities for women to engage in economic and social activities equally.

3.3.2 Financial Literacy and Training

As mentioned before, the level of financial literacy is not optimised yet. There should be a way to improve financial literacy and make sound financial decisions. One solution could be financial training. Hence, a considerable amount of money is invested in financial training and enhancing financial literacy. Nonetheless, awareness is not satisfactory to exploit the available services. As a result, making the wrong financial decision is prevalent among people, and women are more at risk of financial problems because of the disparity in financial inclusion and awareness. Furthermore, in underdeveloped and developing countries, although women are primarily responsible for managing family finance, they are underprivileged regarding financial education and training.

Financial training is more efficient when it is mixed with daily life. Using financial services such as electricity payment through mobile money could be one way to facilitate paying the electricity bill for households in remote areas. Yet, enhancing the level of financial literacy impacts people's economic wellbeing? This part will investigate the effect of financial training on financial behaviour.

Importance of Financial Training

There is a common agreement among scholars and policymakers that financial literacy is one of the main components of financial wellbeing; hence, increasing the level of financial literacy would improve financial wellness. According to Brascoupe et al. (2013), "in order to be financially well, one must be healthy, happy, secure and free from the worry of financial matters." In their literature review of indigenous financial literacy, Brascoupe et al. (2013) stated that financial wellness comprises two group factors: education/policy factors and motivation factors. The former included financial literacy, financial inclusion, and income security, and the latter encompassed financial behaviour and financial attitude.

Despite a broad range of works on financial training literature, results are uncertain. Some empirical studies (Bernheim and Garrett, 2003) suggested that attending the training program could improve the quality of financial decisions. Cole et al. (2012) found little evidence for the efficiency of the financial training program in Indonesia, and Mullainathan and Shafir (2009) reported mixed results.

Concerning the impact of financial training on economic outcomes, there are mixed results, and there are many debates on whether these programs are convenient. In their review of the existing literature up to 2013, Hastings et al. (2013) argued that the current literature lacked guidance on designing the most efficient and cost-effective financial training. They suggested that the best way to evaluate the impact of financial training on financial literacy and economic outcomes is to pair randomised control trials and measures of financial literacy.

The common goal of all researchers in this field is to find a way for helping individuals to make healthier financial actions in order to create a financially secured future. Understanding how individuals function around financial decisions should be the centre of designing financial training programs. The key questions here are: what are the characteristics of these types of training? Can a financial education course in high school serve the purpose? Should the dimension of gender be considered or not? What are the preferred sources of financial knowledge? The following parts will answer these questions.

The Impact of Financial Training

Many experimental studies showed that family and friends were the first choices for getting information to make a financial decision (Bernheim, 1998; Lusardi, 2007; Van Rooij, Lusardi, and Alessie, 2011; Lusardi and Mitchell, 2014). Hilgert, Hogarth, and Beverly (2003) used the University of Michigan's monthly Surveys of Consumers conducted in November and December 2001 to investigate the link between financial knowledge and behaviour. They found that the media's most favoured and useful source of learning about money management. They emphasised the concept of "teachable moment", which refers to the time when the attendee of an educational program has a chance to instantly apply the absorbed information (Miller et al., 2015). In fact, practical education methods, such as video games or radio, are more effective than a formal course (Spader et al., 2009).

Overall, learning without practising the acquired knowledge is inefficient. Due to this fact, a researcher from South Africa (Tustin, 2010) put the locus of the study on the mechanism of turning knowledge into actions. Tustin investigated the impact of financial literacy on saving behaviour in rural areas. That study suggested that training could improve saving after measuring the difference between the control and treatment groups. Similarly, with a more substantial sample in Mexico, Bruhn et al. (2013) confirmed that short training could have a positive short-term impact on saving behaviours.

Afterwards, Kaiser and Menkhoff (2017) reviewed 126 studies with regard to the impact of financial education on financial behaviours. They concluded that financial education positively affects financial literacy and financial behaviour. Still, this impact is different for various financial behaviours; for example, improving saving behaviour was more natural than borrowing. Furthermore, the level of income influences the effectiveness of financial education. The characteristics of the educational program, such as the nature of the program (mandatory or voluntary), intensity, or considering the teachable moment, influenced the outcome.

Planning a program to enhance financial literacy should be the next step if financial literacy is recognised in improving financial behaviours. Furthermore, since the financial world is subject to constant changes, the boundaries of financial literacy should be adjusted. Consequently, the necessity of continuous education and training is evident though authors acknowledge it is not easy to achieve.

Yet, how turn the theory into practice? Jean Lave (1988), in the introduction of her book, mentioned that there is a gap between everyday life and academic one. Consequently, what can be learnt in schools or universities or any principle-based systems might be subject to forgetfulness if there is no immediate use. Thus, focusing on the "teachable moment" could improve the outcome.

Paying attention to the teachable moment is one part of the plan to resolve the problem of the discontinuity between the academic world and the real world. Nonetheless, the sources in which financial literacy is acquired have their roles to play. In general, family and friends are the first choices for making a financial decision (Bernheim, 1998; van Rooij, Lusardi, and Alessie, 2011; Lusardi and Mitchell, 2014), and media and social networks are the most favoured and useful sources of learning about money management (Hilgert et al., 2003). Thus, social interaction is of higher importance due to its role in diffusing knowledge.

Mechanism and Structure of Training

Turning from studies on the benefit of financial training to the structure of these programs, the question of how to design them properly. At this point, it became clear that even in designing financial training programs, there are different and sometimes controversial attitudes. Generally, researchers on financial literacy and financial training or financial education tried to estimate and measure the level of financial literacy, yet standardising the results was a tricky task. In measuring the impact of these training programs, it is noteworthy that they vary in duration and goals. Therefore, comparing the results might not give an accurate conclusion.

In a recent study, Carpena and Zia (2018) worked on the causal mechanism of financial education and found that the level of complexity of financial practice plays a critical role in the causal mechanism of financial education. Their previous study (Carpena et al., 2017) emphasised ATE (average treatment effect) and reasoned financial education alone would not significantly improve financial behaviours. Thus, they applied three different treatments in order to investigate the channel in which financial education would improve financial practices. They concluded that financial literacy programs have no impact on numeracy, but the level of awareness and attitude notably would improve. They also marked that numeracy has no impact on the household's financial practices, but awareness and attitude mediate the treatment effect on financial practices.

Therefore, the structure and complexity of the programs that aim to improve economic welfare should be harmonised with the needs of individuals and circumstances. Drexler et al. (2014) assessed the effect of two different training programs on the financial practices of microentrepreneurs from the Dominican Republic by applying the randomised control trial. The treatment group received different financial training programmes, including standard accounting courses and rule-of-thumb training, which varied in structure and complexity. Their results revealed that the standard accounting course had no significant impact on economic behaviours, while the rule of thumb training with more straightforward rules and concepts to follow remarkably improved the financial management skills of its participants.

To improve the financial training programs, Xu and Zia (2012) provided a few suggestions, such as: considering social interactions and peer learning to boost the training programs, putting more emphasis on vulnerable groups such as women and the older generations, implementing other interventions to improve the efficiency of the program, designing a program based on the available financial services and counting motivation as the main element.

Other studies focused on additional factors such as program providers/presenters, the duration, neurological/psychological aspects, and so forth. For instance, in Tanzania, Berg et al. (2014) implemented business training for local entrepreneurs to compare the effect of internal training and external one. They stated that participants in the external training program were more satisfied and showed more financial skills than those who attended the internal training program.

For the factor of duration, Field et al. (2010) documented insignificant changes in financial behaviours from traditional classroom education. On the other hand, Drexler et al. (2014) argued that a heuristic approach to finance is more effective than teaching financial literacy. ROT is based on the heuristic approach composed of problem-solving, learning, and logical thinking (Nyhus and Webley 2006).

RoT financial education interventions are trending because they are light, convenient, and purpose-oriented. These training programs could show results in the short term (Drexler et al., 2014); hence, they are less time-consuming than other interventions.

Women and Financial Training

Regarding financial and business training for women, it is interesting to note that social restrictions would prevent their entrepreneurship activities (Field et al., 2010). Even if women could defeat all barriers to becoming entrepreneurs, they benefit less from business training when compared with male entrepreneurs (Berge et al., 2014).

However, such conclusions did not discourage other researchers. A recent study by Bhutoriaa and Vignoles (2018) on women from poor households showed that even a relatively low-cost financial program could impact financial behaviours. They chose one-day training over the more expensive traditional classroom interventions. By applying the randomised control trial, Bhutoriaa and Vignoles reported some positive changes in the financial behaviours of the control group. Though the results presented some positive effects on saving and budgeting behaviours, women's interest in financial matters did not change due to the program's unique structure. Attaining a considerable sample (1281 individuals) and the ability to reach individuals added to the reliability of their results and increased the generalisability. In the end, they concluded that training based on behavioural economics, such as RoT interventions, has a higher rate of success than principal-based ones.

Concerning the impact of social training on women's empowerment, Bulte et al. (2018) tried to measure the impact of gender and business training on income hiding in order to overcome poverty and raise welfare among Vietnamese women. They applied a randomised controlled trial to study how training could change the bargaining position of women in households. The authors documented the positive effect of the intervention on gender equality. They stated that these types of training could encourage women to hide their income in order to improve their role in decision-making. But on the downside, the results could discourage NGOs who attempt to improve welfare among rural women by training.

Tailoring the Training For the Audiences

To sum up, an effective training program could be characterised as practical, gender-oriented, and rewarding, present in the teachable moment. A program of this kind could satisfy financial needs. Based on the definition proposed by Sholevar and Harris (2019), financial literacy and financial inclusion have a close relationship; hence financial literacy covers the awareness of needs and availability of services and also abilities and skills to use these services. In other words, awareness links financial literacy to financial inclusion; therefore, it is fair to say that an increase in awareness would result in knowledge-based decision-making and change in financial behaviours. Moreover, this change would spill over, and financial knowledge would spread beyond the target group.

3.3.3 Summary

Based on experimental results from previous research (Lusardi and Mitchell, 2007; 2009; 2011), it appeared that women suffer from a lower level of financial literacy. Different factors such as cultural barriers cause a disparity in financial literacy and limited access to and usage of financial services among women. The common perception, which underestimates women's skills and abilities, might change if the financial needs and availability of services are considered.

Even if there is a gender gap, financial training could be a way to close it, though designing an effective program is still challenging. In designing a financial training programme, paying attention to the financial needs and available services is of utmost importance. The definition proposed by Sholevar and Harris (2019) is well-matched with the basic concepts of RoT, which focuses on accessible financial services to meet the present financial needs. RoT is, in general, favourable because of its light, low-cost, and motivative nature.

As suggested (Sholevar and Harris, 2020), there are possible policy approaches for closing the gap to reduce inequality and increase the accessibility of financial services including:

- Collecting gender data
- Enabling rules and policies
- Expanding and facilitating access to and usage of Fintech such as mobile money.
- Advancing gender-oriented services such as women's pensions
- Supporting the neutralising movements (moving from patriarchal culture toward matrilineal)

- Running women empowerment programs such as business and entrepreneurship training
- Offering gender-sensitive education

Repeated surveys to identify changes and promote positive ones.

3.4 Trust in the Finance Context

Trust and its role in the finance context have attracted the attention of many researchers (Afandi and Habibov, 2017; Ampudia and Palligkinis, 2018; Bongomin and Ntayi, 2019). The relevance of trust in the financial sector has been discussed and acknowledged widely, and various methods have been proposed to measure it. Though there are advances, there is little consensus on definition and scaling methods. In part, this may be due to the fact that trust cannot be observed or measured directly but through its influence on other variables such as choosing a specific financial institution or following the financial advice of a particular advisor. In the literature, trust was defined conceptually (Rousseau et al., 1998) or operationally (Ennew et al., 2011). Yet, it should be taken into account that trust is a multidisciplinary concept and has roots in diverse areas from psychology to organisational behaviour.

Different methods were proposed to scale trust; some regarded it as unidimensional (McEvily and Tortoriello, 2011), and others showed it is a multifacet concept (Moin et al., 2021). Another strand of the literature used distrust as an indicator to fathom trust (Lewicki et al., 1998). In the handbook of trust research, Bachmann and Zaheer (2006) argued that the lack of trust occurs when there is asymmetric information between two parties, customers and financial institutions.

3.4.1 Trust, Unidimensional or Multidimensional Concept?

According to Moin et al. (2021), prior studies identified at least 46 dimensions of trust, but the emphasis of much of the existing work was placed on the trustworthiness of the trustees. Evaluating this multifaceted notion increased the tension among scholars; some scrutinised the scaling method while others criticised unidimensional measures. McEvily and Tortoriello's (2011) review provided a thorough and careful evaluation of instruments designed for scaling trust. Their survey covered

171 papers over 48 years, and 129 different trust measures were introduced, which unveiled fundamental inconsistency in this field; literature on measuring trust is fragmented. Plus, it was noted that most of the previous work regarded trust as a unidimensional concept. Among those 129 measures, only five were identified as noteworthy and recommended. They deduced that using thoroughly developed measures would increase the quality of research and enhance the consolidation of the literature.

Trust in the financial system or the institutional trust was the centre of McKnight et al. (2002) work whilst examining interpersonal domains, as they believed trust is a multifacet concept. The disposition to trust, institutional trust, trusting belief, and trusting intention were proposed dimensions. Moreover, they accentuated the context rather than trustees or trustors; trust in Ethiopia is not the same as in the UK.

Moin et al. (2015) also investigated the importance of institutional trust in building customers' trust. They surveyed 420 office workers in the UK and evaluated the level of trust in the financial system; their measurement scale was developed based on prior studies like McKnight et al. (1998; 2002). The Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were employed to measure and confirm the factor structure of the model.

The other issue with the current literature was the focus of the studies. Moin et al. (2021) clarified that most of the existing ad hoc research concentrated on trustees and ignored other aspects, including trustors and institutional context. It was stated that the state of the art of trust measurement is still rudimentary and even criticised the five noteworthy measures supported by McEvily and Tortoriello (2011). Their empirical study introduced a composite model, combining the trustees, trustors, and institutional context. Their version of the trust scale for financial services encompassed five dimensions; competence, congruence, communication, commitment and context.

3.4.2 Measuring Trust

Ennew and Sekhon (2011) argue measures of trust in existing studies are relatively crude and often rely on a simple yes/no answers. Hence, they developed a trust index to capture determinants of trust in a financial organisation. They concentrated on the financial organisations as trustees and assessed characteristics such as integrity, benevolence, expertise, shared values and communications. The trustors, on the other hand, are customers of these organisations.

Though the literature on trust measurement is fragmented, there are a few studies worth mentioning due to their comprehensive datasets or constant efforts to enrich the state of the trust measurement. For instance, Devlin et al. (2015) collected information on trust from 2005 for ten years; they employed this comprehensive data set to construct the trust index. The trust index was a combination of scales to measure basic and higher-level trust. These scales were introduced in the previous research, including the measure of trust in financial services from Ennew and Sekhon (2007) and Sekhone et al. (2014) and the measure of system trust from Devlin et al. (2014). Although the index was provided and the data were thorough, trust was considered a unidimensional concept; the emphasis was placed on the financial services sector as the trustee.

Narrow-Scope and Broad-Scope Trust

Concerning the types of trust, narrow-scope, broad-scope, and relevant measurements differ from the generalised trust. The narrow-scope trust is trust in one's own institution (Sirdeshmukh et al., 2002), and broad-scope trust is trust in institutions in general (Hansen, 2012). While generalised trust is trust in other people in general. As mentioned before, the literature on trust is not consolidated; there are many different definitions, types, and scales; the lack of consistency in measuring trust could be the main reason for contrary findings on determinants of trust.

The common method of measuring narrow-scope trust is a questionnaire; some researchers asked participants directly if they trust their banks, yet some evaluated the customers' experience to measure it. Hansen (2014) employed a three-item scale to measure narrow-scope trust. Respondents were asked if they believed in their banks' trustworthiness, reliability, and honesty. Bravo et al. (2019) also employed a combination of similar statements; a ten-point Likert scale was developed to measure narrow-scope trust. Data were collected from 306 banking sector customers in Spain and were assessed by partial least squares. Jarvinen (2014) studied a relatively large dataset on trust collected in 2012 from 41,308 European consumers representing 29 countries; it was taken from the EU scoreboard data (market monitoring survey). They were pioneers in addressing trust in different banking services separately.

Van der Cruijsen et al. (2016; 2021) argued the previous surveys were too simple; they designed very detailed questions to see if participants were confident that their bank would return their deposits at all times. The data for their research in 2016 were drawn from the eight annual surveys on trust among Dutch households. They collected data, and in 2021, they published a paper based on evaluating 14 years of data on trust among Dutch households. The link between financial literacy and narrow-scope trust in financial institutions was also examined; their work has a similar theme to the current research.

Researchers employed various question and scoring methods to assess the narrow-scope trust. Participants in Ampudia and Palligkinis's (2018) study were required to score their level of trust in their banks from 1 to 10. The data were drawn from the 2010 and 2012 waves of the Survey of Household Income and Wealth (SHIW) in Italy. Additionally, the households were asked about their level of trust in the banking system; "Could you please indicate your degree of trust in the banks" was the question to measure the broad-scope trust. They were also interested in the relationship between financial literacy and narrow-scope trust.

In the DNB trust survey 2020, Dutch customers were asked the following question "At the moment, do you trust that the bank(s) at which you have deposits is (are) able to repay these deposits at all times?" van der Cruijsen et al. (2020), used this question to illustrate the narrow-scope trust.

One of the interesting and novel methods of estimating trust in one's own bank was exercised by Chernykh et al. (2019). They extracted their data to measure the narrow-scope trust from the online reviews of the bank customer. In total, 125,217 approved reviews of 263 Russian commercial banks were gathered; these reviews were about the customers' experience with a particular bank. Based on these reviews, Chernykh et al. (2019) presented two measures of public confidence in the bank; "Public Confidence in Bank Index" (PCBI) and "Public Confidence in Bank Rate" (PCBR). PCBR was estimated as a Bayesian weighted average, and PCBR was a simple average of reviewers' grades. Noteworthy, providing the basic requirements, such as access to the internet and advanced banking websites in countries like Ethiopia, would hinder employing such innovative methods.

Like narrow-scope trust, developing a survey to measure broad-scope trust was popular among scholars. Stevenson and Wolfers (2011) scaled the people's trust in various public institutions, including banks. Their data were taken from 35 years of Gallup World Poll surveys of trust in institutions. Participants were required to give a yes/no answer to the question on trust.

Knell and Stix (2015) used a question similar to that of Ampudia and Palligkinis (2018) to measure the size of trust towards domestic banks; "Could you please indicate your degree of trust in the banks". But, they acknowledged this measure is vague in terms of the trust concept; the customer's assumption of trust is crucial in measuring trust in banks. For instance, the safety of money is relevant for some customers, while some favour reliability of the bank and banking system. Since their data source was a survey by the Austrian National Bank, they could not assess alternative trust measures for the complete time series. To overcome this problem, the quesstionaire asked participants about their assumption of trust; the majority of them trusted banks because their money was safe with them, the bank was reliable, and their transactions were secure.

To illustrate the detrimental effect of the financial crisis on trust in banks (broad-scope trust), Guiso (2012) combined two sets of data; the US Financial Trust Index Survey (2008-2009) for the level of trust after the financial crisis and comparable data from the General Social Survey (GSS) for the level of trust before the crisis. The question was, "I am going to name some institutions in this country. As far the people running these institutions (banks and financial institutions in this case) are concerned, would you say you have a great deal of confidence, only some confidence or hardly any confidence in them?". A five-point Likert scale was provided to measure the level of trust which one means "I do not trust them at all" and 5 "I trust them completely".

Afandi and Habibov (2017) had a similar goal; studying the role of crisis in the level of trust in banks. They assessed data from two rounds of the Life-in-Transition survey; 29000 individuals from 29 transition countries participated in both the 2006 and 2010 rounds. Their question to measure the level of trust in banks was, "To what extent do you trust in banks and in the financial system?" (1 = complete distrust, two = some distrust, three = neither trust nor distrust, four = some trust, 5 = complete trust). By asking this question, they were able to measure trust in the financial system as well. Nonetheless, one may trust banks but not all parts of the financial system.

Another proxy to measure the broad-scope trust was taken by Fungáčová et al. (2019); "Could you tell me how much confidence you have in banks: Is it a great deal of confidence (1), quite a lot of confidence (2), not very much confidence (3) or none at all (4)?". The World Values Survey data were the primary data source that covered 52 countries from 2010 to 2014. They were the first group of scholars to assess the strength and determinant of trust in banks at a cross-country level. They studied the disparity in trust in banks at the country level, and determined the factors influencing trust at the individual level. Age, gender, income, and education were some of the socio-demographic characteristics they checked. Buriak et al. (2019) used a similar question to measure the trust in banks. The question was taken from the 6th wave of the World Value Survey, "I am going to name a number of organisations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?: Banks". They chose "a great deal" answer as the meaning of their indicator for trust in banks. The data were taken from the 6th wave of the World Value Survey (2010-2014), a sample of 85000 respondents from 60 countries.

There exist studies that estimated narrow-scope and broad-scope trust together. In their literature review on trust, van der Cruijsen et al. (2020) identified 11 studies precisely measuring narrow-scope trust in banks, 13 measures of broad-scope trust, and six research on both narrow-scope and broad-scope trust.

Carbó-Valverde et al. (2013) distinguished between commercial banks and saving banks while measuring narrow-scope and broad-scope trust in Spanish banks. To proxy the trust, they posed the following question "I trust the solvency of commercial banks/saving banks in general and of my commercial bank/saving bank in particular."

Van der Cruijsen et al. (2016) evaluated narrow-scope and broad-scope trust among Dutch households. Using eight waves of trust survey from 2006 to 2010 between members of the CentERpanel, they studied the impact of customers' adverse experiences during the financial crisis on trust in banks. The following questions were utilised to proxy trust; "How much trust do you have in De Nederlandsche Bank? (A lot of trust / Pretty much trust / Not so much trust / Absolutely no trust)", "At the moment, do you trust that the bank(s), at which you have deposit, is (are) able to repay these deposits at all times? (Yes, completely / Yes, predominantly / Neutral / No, predominantly not / No, completely not / I don't know/no opinion)", and "In general, do you trust that banks in the Netherlands are able to repay deposits at all times? (Yes, completely / Yes, predominantly / Neutral / No, predominantly not / No, completely not / I don't know / no opinion)".

3.4.3 Conclusion

This literature survey on trust in the finance context illustrates the lack of consensus among scholars regarding the definition and measurement. Most of these studies were done in the context of developed countries. At the same time, emerging economies, where trust has a more fundamental role due to their social structure, were neglected, overlooked, or assessed through the criteria of a developed country. Hence, considering the financial infrastructures and social structure of the country of the study while designing a measure is the first step to running the research on trust in the finance context.

Chapter 4. Methodology

4.1 Introduction

Research about financial literacy and its applications requires expertise in different fields, and the literature survey is the first step to understanding the nature of this concept. In the case of this study, the complexity of human behaviour influences the process of financial decision making. Hence, qualitative methods such as interviews and observation could be a proper tool to answer the questions. However, analysing the outcomes requires quantitative methods; hence, the mixed methodology is the best option to generate reliable results.

Many researchers applied a combination of qualitative and quantitative methods to answer the questions of the study. Mixed research has been placed between the extremes of Plato (quantitative approach) and the Sophists (qualitative method). Johnson et al. (2007) define it as "an intellectual and practical synthesis based on qualitative and quantitative research; it is the third methodological or research paradigm (along with qualitative and quantitative research). It recognises the importance of traditional quantitative and qualitative research and offers a powerful third paradigm choice that will often provide the most informative, complete, balanced, and useful research results."

The research philosophy is "a system of beliefs and assumptions about the development of knowledge" (Saunders et al., 2016).

This research looked into the factual knowledge collected through the survey, and my job as a researcher was to collect, analyse, and interpret the data. According to Donaldson (1996), this research aligns with positivist epistemology. Focusing on facts, seeking the causalities, and developing and testing the hypothesis are common features of this paradigm which could be seen in this research (O'Gorman and MacIntosh, 2015). Furthermore, positivism seeks factual knowledge and requires a large sample; the number of participants in this study was 470.

In terms of ontology which is the assumption of research (What is the nature of reality?), positivist epistemology is closely aligned with objective ontology (Collins and Hussey, 2013). Finally, this research is value-free, where I am detached from the study; this points toward the axiology of the research.

According to Donaldson (1996), this research aligns with positivist epistemology. Focusing on facts, seeking the causalities, and developing and testing the hypothesis are common features of this paradigm which could be seen in this research (). Furthermore, positivism seeks factual knowledge and requires a large sample; the number of participants in this study was 470.

The "data collection and analysis can be done in both modes, and various combinations, during all phases of the research process. The qualitative should direct the quantitative and the quantitative feedback into the qualitative in a circular, but at the same time evolving, process with each method contributing to the theory in ways that only each can" (Strauss and Corbin, 1998).

Due to the complex nature of this research, employing different methods to collect data, investigate and analyse is necessary. This interaction between these two methods would produce more reliable data. Using the mixed research form will give more freedom to choose the research method.

This section provides the required information and data for measuring financial literacy. The following section is about designing the questionnaire. The third will be a short discussion on sampling and collecting data methods. The final part describes the methods of constructing indices.

4.2 Design of the Questionnaires

The first stage was designing a questionnaire to assess financial literacy. In developing these questionnaires, social and cultural factors were considered, along with the level of literacy. The most practical approach to do this was to adapt and develop the questions from previous studies with regard to the social/cultural factors and the level of literacy among people from Jimma city and the surrounding areas. The questionnaire, of course, was translated into Oromo and Amharic, the requisite local languages.

Previous research has exhibited four categories included in most questionnaires; daily money management, financial knowledge and awareness, selecting the appropriate products and services and financial planning (OECD, 2009). These four categories were incorporated in designing the questionnaires in this study. Some of the questions were drawn from available financial surveys and, after some alterations, were added to the survey to meet the research objectives. Other questionswere designed for the specific economic situation in the target population of Ethiopia.

Kempson (OECD, 2009), in her work on the best practice to design the questionnaire, explained that selected questions should have five criteria, e.g., being scorable, having a correlation with the measured concept, being appropriate across the population, having commonality with previous research, and being standard and tested.

All the criteria have been met in this research and the target population is micro small enterprises and households in the Jimma zone, Ethiopia.

Two questionnaires were designed based on the target population:

1) A survey for Micro/Small Enterprise and households, which included questions on Financial literacy and financial inclusion

2) A survey for Micro/Small Enterprise and households collecting data on trust in the banking sector

The questionnaires are provided at the end of this chapter. In designing these questions, the following sources were used;

- Lusardi and Mitchel's (2009) three questions on financial literacy are often referred to as "the big three questions";
- The Japan financial literacy survey (Central Council for Financial Services Information, 2016);
- The Global Findex 2017; measuring financial inclusion (The Global Findex, World Bank, 2017); and

◈ The OECD/INFE 2018 International Survey of Adult Financial Literacy.

I used Lusardi and Mitchell's (2009) big three questions to increase comparability in our survey. The first two items about numeracy skills and understanding inflation were altered to meet the country-specific circumstances. The third item on diversification and buying stocks of different companies was not applicable in this context; the stock market in Ethiopia has not been established yet. Despite its popularity, investing in the stock market is not the first choice in many countries, even in developed ones, let alone in Ethiopia. This question was designed for the US, where the stock market is popular and trading is a common practice.

I aimed to calculate the financial literacy score of participants in two ways, i.e., our proposed method and Lusardi and Mitchell (2009). This could enable us to compare these two scores for each participant.

The proposed questionnaires encompass different aspects of financial literacy and financial inclusion, from measuring to evaluating their relationship and gender disparity. Also, to reduce the likelihood of guessing the correct answer, I followed the suggestion of Lusardi and Mitchell (2008a) and van Rooij et al. (2011) by adding the "I don't know" option to the responses.

4.2.1 Financial Literacy and Financial Inclusion Questions

In the proposed definition, "Financial literacy is defined by the awareness and knowledge of exploiting the available financial services from essential financial needs to potential financial inclusion." This concept is characterised by the demand and supply sides; awareness and need are related to the demand side, while the supply side encompasses the availability of financial services.

Two factors impact the accessibility of available services; financial needs and financial means. This implies that individuals should be aware of their financial needs to demand available services. However, this process is ineffective without the essential means of money, time, identity documents, and abilities and skills to use the service. These two factors, needs and means, are complementary to turning an available service into the accessible one. Financial literacy should cover the awareness of needs and availability of services and also abilities and skills to use these services.

Nonetheless, a financial service or product should be available before becoming accessible. Availability of financial services is closely related to financial inclusion; therefore, financial literacy is capped by the level of financial inclusion in each context.

Hence, elements such as financial needs, knowledge about available services and application of financial services should be assessed in this survey.

(A) Financial needs (daily money management and financial planning)

Questions 1-8 cover budgeting, making ends meet and money management. Numbers 7, 8 and 13 addressed financial planning. This part includes financial resilience as well.

(B) Numeracy

Question 9 measures an essential numeracy skill.

(C) Financial awareness and skill in using financial services

Questions 10, 14, 22 and 23 are about the financial awareness of services and products.

Questions 11 and 12 assess the level of understanding the inflation.

Questions 15 to 21 are about the skill and knowledge of using financial services and products.

(D) Saving and payment

Questions 24-38 cover the level of access to and use of financial services such as savings and money transfer. This is a set of questions that seek to understand if individuals are actively saving, if they borrow or avoid borrowing to make ends meet in a short-term financial shortfall and whether they set themselves long-term financial goals. This part focuses on digital currency and innovation as well.

Why Saving, Payment, and Borrowing?

Among different financial behaviours, this study focuses on saving, payments and borrowing as indicators of financial inclusion. The relationship between these and financial literacy will be analysed by applying appropriate statistics. Issues covered include:

- ◊ account ownership, including consideration of the dormancy problem and the accuracy of data;
- ◊ borrowing, where a higher value does not necessarily mean a better outcome;
- ◊ digital payments as an indicator of usage;
- ◊ motivating individuals to save more would result in using other financial services (Rhyne and Kelly, 2018).

4.2.2 Trust Questions

Employing a survey tool to measure trust has been recommended by many scholars (Currall and Judge, 1995; Gillespie, 2003). Hence, I designed a questionnaire to collect data on various aspects of trust in the banking sector; there were questions to measure broad-scope and narrow-scope trust.

I aim to investigate the relationship between trust and financial literacy. Data were collected using a survey to measure the trust and the results will be analysed in association with measures of financial literacy. During this process, the impact of gender on trust will also be assessed to scrutinise and compare the influence of gender on trust and financial literacy.

This study pioneers a more comprehensive assessment of trust by designing a questionnaire and evaluating the impact of socio-economic context. Furthermore, this study takes a step further by applying the novel and innovative definition of financial literacy as a basis to measure and contrast the level of financial literacy with trust.

Trust, Dimensions, and Types

In this study, multi-item questions using the Likert scale were developed to measure the level of trust in various parts of the banking sector, including one's own bank, the banking system, the financial advisors, and banks from other regions. Drawing on previous work (Moin et al., 2015,2021; McEvily and Tortoriello, 2011), I treated trust in the financial sector as a multidimensional concept comprising the trustee, trustor, and institutional context and a questionnaire was designed to capture these facets. Regarding the trustor's dimension, customers were asked if they are willing to recommend their banks to their family and friends, which exhibit trustees' commitment and loyalty toward the trustees. On the trustee's side, participants answered questions about the quality of provided services and information, which scaled the trustee's competence. Trust in financial services, such as electronic banking and mobile money, is related to trustors since they accept exposure to the risk by trusting services (Ennew and Sekhon, 2007).

I also planned to measure narrow-scope and broad-scope trust in the finance sector. Narrow-scope trust would be measured through a question on trusting one's own bank, whilst the questions on trusting the banking system and advisors could help evaluate broad-scope trust. The final part of the survey asks participants whether the bank officer trusts them to assess their perception of whether they are seen as trustworthy.

Not surprisingly, there are some overlaps in measured items regarding the pertinent questions; for instance, the question on the institutional context is relevant to scaling the broad-scope trust.

(A) Trusting the financial system

Questions 1 to 6 assess the level of trust in the banking system among the target population.

(B) The definition of trust

Question 7 looks into the trust from the perspective of the customers

(C) Trusting the state-owned or private financial institutions

Questions 8 to 15 study the preference between private and state-owned financial institutions and look into the reasons behind this choice.

(D) Trustworthiness of the bank

Questions 16 to 18 ask respondents if their bank is trustworthy enough to be introduced to their family and friends.

(E) Trusting banking products

Questions 19 to 25 assess the level of trust in banking products and services.

(F) Self-confidence and trust

Questions 26 to 28 ask participants whether the bank officer trusts them to assess their perception of whether they are seen as trustworthy.

4.3 Methods of Sampling and Collecting Data

This survey encompasses different aspects of financial literacy, from measuring it to assessing its relationship with financial behaviour and evaluating the gender disparity in the following chapters. A literature survey has been carried out to provide a baseline for assessing the studies on financial literacy and financial inclusion. Qualitative and quantitative methods would be used to examine the relationship between financial literacy and financial behaviours.

Regarding financial literacy measurement, using Lusardi and Mitchell's (2007) big three questions is a common practice that measures respondents' knowledge of interest rates, inflation, and risk diversification. A single weighted average of correct/incorrect responses determines the level of financial literacy. Hung et al. (2009) constructed an index that combined different aspects of financial literacy. A structural one-dimensional latent variable model of financial literacy was used to construct the index. In this research, a survey is designed to collect data to measure the level of financial literacy through different analytical methods.

Data were collected using the questionnaire by interviews, and interviewers contacted individuals, explained the questions clearly, and recorded the answers precisely on prepared forms. To obtain an accurate answer, each question (main questions) were accompanied by relevant examples

The answers to the questionnaire were entered into a spreadsheet to facilitate analysis.

4.3.1 Ethiopia As the Target Population

While the low level of financial literacy and financial inclusion is a primary concern worldwide, Ethiopia has some peculiarities in politics and economy, as mentioned in the chapter on Ethiopia.

Countries with strict financial regulation and weak financial infrastructure typically prescribe which services at what level should be used. In financially underdeveloped countries, the gender difference is bolder than in developed ones, and rules and norms favour men more than women. Although women are often primarily responsible for managing family finances in many underdeveloped and developing countries, they are typically underprivileged regarding financial education and training.

Women from the Oromo area, the most populated place in Ethiopia, are the target of this research. There are different reasons for choosing this area. First, it is the most inhabited area among other parts of Ethiopia, with a population of more than 35 million. Second is the strategic location of Jimma, which is in the same province as the capital, Addis Ababa. Although these two cities are not more than 300 kilometres, cultural and technological differences are extreme. The insufficient infrastructure regarding transport and political matters are the main reasons for this separation.

Jimma is the centre of the Oromo region and the birthplace of coffee, providing more than 63% of Ethiopian coffee production (Central Statistical Agency, 2010). Improving the access and usage of financial services could significantly benefit the local economy.

The third reason is the new political wave; the new Prime Minister is for the first time from this region. On the other hand, the new President and half of the cabinet are women. These political changes suggest a promising and progressive future for women in the Oromo region.

While the low level of financial literacy and financial inclusion is a primary concern worldwide, Ethiopia has some peculiarities in terms of politics and economy, as mentioned in the chapter on Ethiopia.

4.3.2 The Fieldwork

Following the COVID-19 outbreak, the planned fieldwork in Ethiopia could not be conducted because of governmental restrictions. Through an adaptive scheme, Jimma University became responsible for conducting the face-to-face interviews while supervising the process from our side. This was made possible by signing an MOU between SOAS and Jimma University. The Vice President for Development of Jimma University formed a team of experienced surveyors from the Business School and personally supervised the project. Numerous meetings were held, and a good understanding between the two teams was developed. To reach the target, the population was stratified, and the sample framework was sent to the Jimma team. After confirming the sample framework and sampling methods, a training session was held by the SOAS team, which was completed with written instructions and terminology (Appendix 2).

To collect the data, SOAS University of London Signed an MOU with Jimma University to collect data under the supervision of the SOAS team. We tracked every step of collecting data. The questionnaire was new, and it would have been easier to collect data than to fabricate. Furthermore, I tested the consistency of the data by running correlations and checking the answers in different categories. We received both electronic and paper copies of the answered questionnaires. Studying the handwriting was the last step in verifying the originality of the data.

4.3.3 Sampling Framework and Target Population

The Sample Size

The target population was households and micro-small enterprises in the Jimma zone. The margin of error was 5% with a confidence level of 95%, resulting in a sample size of 384. To improve the reliability of the results, more than 10% of the calculated sample was added, which increased the sample size to around 450; our sample was composed of 470 participants. Overall, 470 individuals participated in this study; 235 males and 235 females; 30% were chosen from urban areas to reflect the population demography. The employees' share was 153, and the number of micro and small business owners was 166 and 131, respectively (Table 4.1). A quick look at the data shows there is no gender gap in education; on average, women slightly earned more than men. A more significant proportion of men were head of the family.

Table 4.1 Socio-demographic characteristics of the respondents

Profile of respondents (total 470 individuals)			
Rural/Urban		Female	Male
	Urban	78	71
	Rural	157	164
Job category	Employees	74	79
	Micro business owners	106	80
	Small business owners	55	76
Age	18-19	10	7
	20-29	100	97
	30-39	91	96
	40-49	27	20
	50-59	4	12
	60-69	3	3
Marital status	Single	69	80
	Married	166	155
Income	0-1000	21	29
	1,001-5,000	60	67
	5,001-10,000	76	56
	10,001-15,000	21	24
	15,001-20,000	18	16
	>20,000	7	15
	I don't want to say	31	26
Education	Completely illiterate	1	0
	No formal education	1	1
	Primary and secondary	35	36
	High school	88	89
	Junior college	36	32
	Undergraduate	59	62
	Masters degree/above	15	15

Sampling Methods

There are two main methods for sampling: non-probabilistic and probabilistic. Since components of the sample chosen by the non-probabilistic method are subject to bias, I apply the probabilistic method in this study. Two common techniques of the probabilistic method are simple random sampling and stratified random sampling. Random sampling aims to give the same chance of being selected. If it is not so, calculating the standard error is difficult, and the sample would not represent the population precisely.

However, the population should have a normal distribution and is relatively homogeneous for applying random sampling. Since the population is not homogenous and categories vary in education, age, income level, and so forth; random sampling could not meet the criteria. In this case, stratified random sampling is possibly a solution to this problem.

In stratified random sampling, the population is divided into a number of subgroups; then, the random sampling is applied to each stratum. By giving equal weights to the different sub-groups of the population, this method guarantees that the outcome data are representative of the whole population.

For the first questionnaire, Survey for Micro/Small Enterprise and households, I stratified the population into three categories;

1) Geographic location: Urban and District
2) Gender: Female, Male
3) Occupation: Small enterprise, Microenterprise, Household/employed people (On small and micro enterprises, the distinction is based on the number of full-time equivalents (FTE) employees. Micro enterprises ≤ 5 FTE and Small enterprises.

The sampling method is a mixture of cluster, stratified and convenience. Choosing the target population (Jimma town and district) in the first step is based on cluster sampling. The target population is stratified by employed, micro and small enterprises and male and female. In the final stage, the convenience method is applied to achieve the number for each group (employed, micro and small enterprises).

In a developed country, the possibility of having comparable education, income, and social status backgrounds among men and women is so much higher than in a developing country. Hence, a random sampling method in a developing country could be quite misleading, especially when the research is about the depth of inclusion.

Due to culturally biased circumstances in developing and underdeveloped countries, men are financially privileged. Power in these countries is gendered.

4.3.4 The Data Collection Process

The method of collecting data was a face-to-face interview. Potential interviewees was invited to participate, and the purpose of the questions was briefly explained – Financial Inclusion and Trust. Individuals who choose to participate were given the corresponding informed consent to use their data for this study. Individuals were not under any pressure to participate. The questionnaire form was completed during the interview by hand. The interviewees were given enough time to think and answer.

Random sampling was the main method of sampling to make sure the results reflected the whole population. All the individuals in the target population had an equal chance of being selected.

To increase the internal and external validity, I standardised the instruments by designing the questionnaires based on previous studies. Plus, the Lusardi and Mitchell questions were included as a reference point to check the validity of the results from previous studies. I added follow-up questions for each Yes/No question to increase the accuracy of the data. Furthermore, the results of Cronbach's alpha test illustrated a good level of internal consistency of the measure.

I also ran the pilot phase to identify and correct any errors that could have ruined the overall data-collecting process.

It should be noted that the data collection started in the rainy season, and access to some parts of the rural areas was challenging. This also coincided with Ramadan, and many business owners were Muslims and fasting. Hence, collecting data was difficult. As stressed in Chapter 2, there is no formal data on small businesses as they are not officially registered.

In this study, I seek the interviewee's own personal situation and views rather than those of their household, enterprise or the wider society.

4.4 Constructing Indices

The financial literacy index was created based on the definition proposed by

Sholevar and Harris (2019). They stated that financial literacy is "the awareness and knowledge of exploiting the available financial services ranging from essential financial needs to potential financial inclusion."

The financial inclusion index covers both access and usage dimensions.

4.4.1 Financial Literacy Index

In measuring financial literacy, I considered three dimensions: financial knowledge and awareness, financial attitudes, and numeracy. The core part of the questionnaire measures financial knowledge and awareness through the twenty-three questions. Three questions measure the financial attitude, and two questions are supposed to evaluate numeracy skills. Overall, the financial literacy score is a derived value that ranges between 1 and 28. The respondents will get one point if they answer the question correctly (for the yes or no and multiple-choice questions) and zero in all other cases. For the Likert scale questions, their point will be ranged from 0 to 1. The distribution is not even, as the main targets are 0, 0.5, and 1 for those who never used the service, only once, and frequently, respectively. As a result, the distribution for five answers is 0, 0.2, 0.4, 0.6, and 1.0. The aim was to put a higher weight on scoring for those who frequently use the service (1.0 for Answer 5) as compared to those who used it but only once (0.6 for Answer 4). An alternative approach was to have 6 answers covering multiple usages for the score of 0.8, but it would make the surveying process more complicated. For more details, see Appendix 1. At this stage, all of the elements of the financial literacy index were given equal weight to increase the comparability of the results with previous studies. If there is more than one correct answer for a question, then the average of the correct answers would be calculated.

Financial knowledge and awareness cover basic knowledge of financial concepts, financial products and the ability to use them. Questions on interest compound and inflation are testing the numeracy skill, and financial attitude is about the priority of expenditures and preferred methods of savings in general.

The OECD/INFE 2016 International Survey of Adult Financial Literacy was used as one reference in designing the questionnaire. Yet, there are some differences in the structure of the questionnaire, elements of financial literacy, and methods of collecting data. The most notable difference is related to the method of sample selection;

instead of random selection, which OECD used, I stratified the sample by gender, occupation and location of residence to compare the level of financial literacy among men and women in impartial circumstances.

In OECD/INFE 2016 International Survey of Adult financial literacy, awareness is covered by financial inclusion; however, based on the definition of financial literacy by Sholevar and Harris (2019), awareness is an element of financial literacy. Instead, the level of being informed about the financial services and the quality of provided information is assessed while measuring financial inclusion.

Finally, I normalised the scores by calculating the percentage with respect to the maximum score to enhance the comparability.

4.4.2 Financial Inclusion Index

In the literature on financial inclusion, bank account ownership is often considered an indicator of financial inclusion (Beck et al., 2007; Brune et al., 2016). Yet, combining these indicators with other elements, e.g., product holding and retirement planning, could give a better picture of the community's inclusiveness. As noted by OECD/INFE in their financial literacy and financial inclusion survey 2020, financial inclusion is not just about the supply side and account ownership; it should give some insights into the performance of the financial institutions from the consumer's perspective. After doing a systematic review of studies on definition, measures and data sources for financial inclusion, Pesqué-Cela et al. (2020) employed confirmatory factor analysis (CFA) to test two popular financial inclusion indices developed by Arora (2010) and Park and Mercado (2015; 2018). They deduced that usage and access are highly correlated, and consumers' perception of the quality of services plays an essential role in enhancing financial inclusion.

In compliance with Pesqué-Cela et al. (2020), participants of this study were asked about the quality of the provided information and financial services, also their recent use of services such as saving and transferring.

The financial inclusion score is calculated similarly to financial literacy and ranges between 1 and 11. Financial inclusion covers the bank account ownership, ability to make ends meet, regular income, being informed, the quality of financial services, holding products such as insurance, retirement planning, and recent use of services such as saving, receiving, and sending money.

Similar to the financial literacy score, I normalised the outcomes of the financial inclusion index.

4.4.3 Trust Index

To measure trust in the banking sector, I measured three dimensions; trustees, trustors and context. These three dimensions were assessed through their impacts on the participants' behaviours. The score for trust in the banking sector was a derived value ranging from 0 to 9. In the case of choosing the correct answer, the respondent gets one and zero in all other cases (for the yes or no and multiple-choice questions). Questions with the 5-point Likert scale have a different way of scoring; the score will rise from zero to 1 by an increase in the ranking. The scoring was made according to the approach described in Section 4.4.1. All of the elements of the trust index were given equal weight. For more details, see Appendix 1. The scores would be normalised by calculating the percentage with respect to the maximum score; the score ranges from 0 to 100.

4.5 Appropriateness of OLS

There are a few assumptions for the linear regression Ordinary Least Square, which should be satisfied in order to use OLS; these assumptions normally would be checked through the post-estimation analysis.

The first is linearity; there is no place for multicollinearity. By conducting the literature review, it seemed that there is an apparent consensus in previous studies about the appropriateness of the Ordinary Least Square in measuring financial literacy and assessing the impact of socio-demographic variables (Tayler, 2010; Lusardi and Mitchell, 2007, 2011; Behrmanet al. 2012; Agnew et al., 2012). Plus, numerous figures (6.2, 6.3, 6.5, 6.6, and 6.8) showed a linear relationship between financial literacy/inclusion independent variables such as gender, income, age, etc.

The F-statistical in all the results tables was relatively high, implying that instruments are not weak and have predictive power. Furthermore, I used the Ramsey

RESET test to detect non-linearity. Using a significance p-value of 0.05, the RESET test is insignificant, indicating no omitted variables in the model and the linearity assumption has been met (Table 4.2).

Table 4.2 Ramsey RESET test using powers of the fitted values of Financial literacy score

Ho: model has no omitted variables	
F(3,459)	0.32
Prob > F	0.8137

Employing Variance inflation factors (VIF) is a common method to detect multicollinearity. R-Square in VIF should be lower than five in order to reject multicollinearity. I ran the OLS and employed VIF. Table 4.3 shows that the value is below five; hence the multicollinearity is not presented.

Table 4.3 Variance inflation factors to check multicollinearity

Variables	**VIF**	**1/VIF**
Income	1.15	0.866
Education	1.09	0.866
Gender	1.00	0.998
Mean VIF: 1.08		

Next, I used the Breusch-Pagan test to study heteroskedasticity. This test helps to check the null hypothesis against the alternative. The null hypothesis states the error variances are all equal (homoscedasticity), while the alternative is that the error variances are a multiplicative function of one or more variables (heteroskedasticity). In order to reject the null hypothesis, the probability value of the chi-square statistic should be less than 0.05. Table 4.4 shows that the probability value of the chi-square statistic is higher than 0.05; hence, we can not reject the null hypothesis at a 5% level of significance. It implies that there is no heteroscedasticity in the residuals.

Table 4.4 Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance	
Variables: fitted values of financial literacy score	
chi2(1)	0.01
Prob > chi2	0.9369

Questions for Collecting General Information (G).

G1	Category of respondents
1	Employee
2	Owner-manager of micro enterprise
3	Owner-manager of small enterprise

G2	What is your gender?
1	Male
2	Female

G3	What is your age?
1	18-19
2	20-29
3	30-39
4	40-49
5	50-59
6	60-69

G4	What is your marital status?
1	Single
2	Married/Living with partner

G5	Which area do you live in? (address, Phone)

G6	What is your religion?
1	Muslim
2	Christian
3	Others

G7	What is your highest education level?
1	Primary and secondary schools only

2	High school
3	Junior college/college of technology
4	Undergraduate
5	Masters degree and above
6	No formal education, but able to read and write
7	Completely illiterate

G8	**What is your employment status? (multiple choices)**
1	Company employee
2	Government employee
3	Farmer
4	Private business- Specify please
5	Part-timer- Specify please
6	House maid
7	Student
8	Unemployed
9	Other- Please specify

G9	**Do you have any assets? (multiple choices)**
1	Savings
2	Livestock- Specify
3	House
4	Farm
5	Land
6	Machinery
7	Other- Please specify

G10	**Are you head of the household?**
1	Yes
2	No

Financial literacy Questionnaire (QL).

QL1	Do you have a regular income?
1	Yes
2	No

QL2	what is your average monthly income in Birr
1	0-1,000
2	1001-5,000
3	5,001-10,000
4	10,001-15,000
5	15,001-20,000
6	>20,000
7	I don't want to say

QL3	If No, What are the reasons for your answer?
1	I don't have a job
2	I don't have enough money to start a job
3	My income is not predictable
4	I am a student
5	I don't want to say

QL4	Do you keep track of your expenditure?
1	Yes
2	No

QL5	Does your income cover living expenses, if not, what do you do? (multiple choices)
1	Yes
2	No, Cut down expenses
3	No, Borrow money from friends and family
4	No, Spend our savings
5	No, use a credit card
6	No, Sell our financial assets
7	No, work extra hours

8	No, Others

QL6	If you lose your income, how long your assets or saving would last to meet your living expenses?
1	Less than a week
2	More than one week but less than a month
3	Between one month to three months
4	More than three months
5	I don't know

QL7	How do you spend your money? (On a scale of 1 to 5, what is the rating for the following options)
1	Living expenses
2	Paying children's educational expenses
3	Saving for emergency
4	Buying a House /Farm/Sheep/Ox
5	Saving for Retirement

QL8	If you have any money left, what do you do? (On a scale of 1 to 5, what is the rating for the following options)
1	Keep it in cash
2	Deposit in bank
3	Spending on clothes, foods,
4	Buying a House /Farm/Sheep/Ox
5	Save in the savings club

QL9	Assume you deposited 1000 birr in a savings account with 5% interest rate per month. After a year, how much money you would have if you don't withdraw or add any money to your account?
1	More than 1500
2	Less than 1500
3	Exactly 1500
4	Don't know

QL10	On a scale of 1 to 5, how much do you know about the following products?
1	Instalment
2	Savings account

3	Mobile money
4	Digital payment
5	Credit card
6	Microfinance loan
7	M-birr
8	Mortgage
9	Life insurance
10	Weather insurance
11	Current account
12	CBE-Birr

QL11	**What do you think is the current inflation rate?**
1	Under 5%
2	5-10%
3	11-20%
4	21-30%
5	31-40%
6	I don't know

QL12	**Imagine you have 2000br now. After one year, how much would you be able to buy with this money?**
1	More than today
2	Exactly the same
3	Less than today
4	Do not know

QL13	**What is your plan for retirement? (multiple choice)**
1	Government pension
2	Employment pension plan
3	Sale of financial assets
4	Sale of non-financial assets
5	Relying on a spouse/partner children or other family members for support
6	Other (please specify)
7	No plan

QL14	Is it possible to open a bank account with less than 100 birr?
1	Yes
2	No
3	I don't know

QL15	How do you pay your water and electric bill? (multiple choices)
1	By cash in the bank
2	By mobile money- (CBE-Birr- M-birr)
3	By ATM
4	I don't pay any bills
5	Other (please specify)

QL16	Have you ever transferred money?
1	Yes
2	No

QL17	How did you do it? (multiple choices)
1	By Bank
2	By ATM
3	By Western Union
4	By friends and family
5	By CBE-birr
6	All of them
7	Other (please specify)

QL18	If no, What are the reasons for your answer? (multiple choices)
1	I don't have enough money to transfer
2	I don't have anyone to transfer
3	I don't have bank account
4	I don't trust bank with my money
5	All of them
6	Other (please specify)

QL19	Do you have insurance?
1	Yes

2	No

QL20	**What kind of insurance do you have?**
1	Life Insurance
2	Car insurance
3	Weather insurance
4	Health insurance
5	All of them
6	Other (please specify)

QL21	**If no, What are the reasons for your answer? (multiple choices)**
1	I don't have enough money to buy insurance
2	I don't have any valuable thing to buy insurance
3	I don't trust insurance companies
4	I don't understand insurance and its mechanism.
5	All of them
6	Other (please specify)

QL22	**Do you know what cryptocurrency is?**
1	Yes
2	No

QL23	**Do you know anything about the stock market in Ethiopia?**
1	Yes
2	No

QL24	**In the past 12 months, did you save any money?**
1	Yes
2	No

QL25	**How did you save money? (multiple choices)**
1	In the bank account
2	In savings clubs
3	Lent it to friends and family

4	Bought financial assets
5	All of them
6	Others (please specify)

QL26	**If NO, please explain it (multiple choices).**
1	I did not have enough money to save.
2	I did not have a bank account.
3	I don't know how to save money
4	I prefer to spend my all money instead of saving
5	All of them
6	Others (please specify)

QL27	**In the past 12 months, did you send any money to other people?**
1	Yes
2	No

QL28	**How did you send money? (multiple choices)**
1	Through the bank
2	Through friends and family
3	Through mobile money- CBE-birr
4	Through western union
5	All of them
6	Others (please specify)

QL29	**If NO, please explain it (multiple choices)**
1	I did not have enough money to send.
2	I did not have anyone to send money.
3	I don't know how to send money
4	I don't like giving my money to others.
5	All of them
6	Others (please specify)

QL30	**In the past 12 months, did you receive any money from other people?**
1	Yes
2	No

QL31	How did you receive money? (multiple choices)
1	Through the bank
2	Through friends and family
3	Through mobile money
4	Through western union
5	All of them
6	Others (please specify)

QL32	If NO, please explain it (multiple choices)
1	I did not have anyone to send me money.
2	I don't know how to receive money
3	I don't have a bank account
4	It is not easy and troubling.
5	All of them
6	Others (please specify)

QL33	If it is possible, do you save money as cryptocurrency?
1	Yes
2	No

QL34	If YES, please explain it (multiple choices)
1	I trust it
2	I found it easy to understand and use it
3	It is financially rewarding
4	It is innovative
5	All of them
6	Others (please specify)

QL35	If NO, please explain it (multiple choices)
1	I do not trust it.
2	It is difficult to understand.
3	I do not have access to online banking.
4	I do not have enough knowledge about it
5	All of them

6	Others (please specify)

QL36	**If it is possible, do you invest money in the stock market?**
1	Yes
2	No

QL37	**If YES, please explain it (multiple choices)**
1	I trust it
2	I found it easy to understand and use it
3	It is financially rewarding
4	It is innovative
5	All of them
6	Others (please specify)

QL38	**If NO, please explain it (multiple choices)**
1	I do not trust it.
2	It is difficult to understand.
3	I do not have access to internet
4	I do not have enough knowledge about it
5	All of them
6	Others (please specify)

Trust Questionnaire (QT).

QT1	**On a scale of 1 to 5, how much do you trust your bank?**

QT2	**On a scale of 1 to 5, how much do you trust the banking system?**

QT3	**On a scale of 1 to 5, how much do you trust your financial adviser or the bank officer?**

QT4	**On a scale of 1 to 5, how much do you feel well-informed about bank products, services and charges?**

QT5	**On a scale of 1 to 5, how much do you trust a bank from the other regions such as Amhara?**

QT6	**On a scale of 1 to 5, how would you rate the quality of banking services you currently use?**

QT7	**What do you mean when you say you trust a financial organisation (multiple choice)**
1	My money is safe with them
2	The organisation is reliable.
3	My transactions are secure.
4	My transactions are timely.
5	The fees are reasonable.
6	I can access my money whenever I need.
7	The process and procedures are transparent.
8	My data and information are protected.
9	My money would be guaranteed.
10	All of them.
11	Other (please name it)

QT8	**Do you have an account in Private owned bank or State-owned bank?**
1	State owned bank
2	Private owned bank

3	Both

QT9	**Do you trust State owned/Private owned banks?**
1	I trust State owned banks but not Private owned banks. (please answer questions 10-11)
2	I trust Private owned banks but not State-owned banks. (please answer questions 12-13)
3	I do not trust either of them. (please answer question 14)
4	I trust both, Private owned and State-owned banks. (please answer question 15)
5	I don't know

What are the reasons for your answer to question 9?

QT10	**I trust State owned banks because: (multiple choices)**
1	They do not stay away when I have problems.
2	They will not go bankrupt.
3	They treat customers fairly.
4	They are more competent than Private owned banks.
5	The charges and fees are reasonable.
6	The costs and risks are clear.
7	They are regulated and follow the law and regulations.
8	They are government owned.
9	They respond to the customers complain quickly.
10	They are good financial advisers.
11	All of Them
12	Other (please name it).

QT11	**I do not trust Private owned banks because: (multiple choices)**
1	They stay away when I have a problem
2	They might go bankrupt.
3	They do not treat customers fairly.
4	They are not competent.
5	They charge unreasonably.
6	The costs and risks are not clear.
7	They are not regulated.

8	They are not government owned.
9	They do not respond to the customers complain quickly.
10	I do not trust their financial advice.
11	All of Them
12	Other (please name it)

QT12	**I trust Private owned banks because: (multiple choices)**
1	They do not stay away when I have problems
2	They will not go bankrupt.
3	They treat customers fairly.
4	They are more competent than other banks.
5	The charges and fees are reasonable.
6	The costs and risks are clear.
7	They are regulated and follow the law and regulations.
8	They are not government owned.
9	They respond to the customers complain quickly.
10	They are good financial advisers.
11	All of Them
12	Other (please name it).

QT13	**I do not trust State owned banks because: (multiple choices)**
1	They stay away when I have a problem
2	They might go bankrupt.
3	They do not treat customers fairly.
4	They are not competent.
5	They charge unreasonably.
6	The costs and risks are not clear.
7	They are not regulated.
8	They are government owned
9	They do not respond to the customers complain quickly.
10	I do not trust their financial advice.
11	All of Them
12	Other (please name it)

QT14	**I do not trust either of them because: (multiple choices)**

1	They stay away when I have a problem
2	They might go bankrupt.
3	They do not treat customers fairly.
4	They are not competent.
5	They charged unreasonably.
6	The costs and risks are not clear.
7	They are not regulated.
8	They do not respond to the customers complain quickly.
9	They are not honest with customers.
10	I do not trust their financial advice.
11	All of Them
12	Other (name it please)

QT15	**I trust both of them because: (multiple choices)**
1	They do not stay away when I have problems
2	They will not go bankrupt.
3	They treat customers fairly.
4	They are more competent than other banks.
5	The charges and fees are reasonable.
6	The costs and risks are clear.
7	They are regulated and follow the law and regulations.
8	They respond to the customers complain quickly.
9	They are honest with customers.
10	They are good financial advisers.
11	All of Them
12	others (name it please).

QT16	**Will you recommend your bank to your family or friends?**
1	Yes
2	No

QT17	**If YES, please explain it (multiple choices)**
1	This bank is financially strong
2	This brand has many branches around the Ethiopia
3	They provide good services

4	Working with this bank is financially rewarding.
5	They are efficient with regards to time and cost.
6	They are trustworthy
7	They have a good customer relationship management.
8	They are more competent than the other banks.
9	All of them
10	Other (please name it)

QT18	**If NO, please explain it (multiple choices)**
1	It is risky, they might go bankrupt.
2	They don't have many branches around Ethiopia.
3	They do not provide good services.
4	Working with this bank is not financially rewarding.
5	They are not efficient with regards to time and cost.
6	They are not trustworthy.
7	They do not have a good customer relationship management.
8	They are not competent.
9	All of them
10	Other (please name it)

QT19	**Do you trust ATM or electronic banking?**
1	Yes
2	No

QT20	**If YES, please explain it (multiple choices)**
1	My money is safe with them.
2	Online banking is accessible.
3	Banks are always crowded.
4	I have a problem with opening times of the bank
5	By online banking and ATM, I can get better information and services.
6	The government protects my electronic money.
7	All of them
8	Others (please name it)

QT21	**If NO, please explain it (multiple choices)**

1	I do not trust online banking with my money
2	It is not accessible from anywhere at anytime.
3	Most of the time, ATMs do not have money.
4	ATMs do not provide me all the services that I need.
5	I prefer talking with banking officers.
6	The government protects my money.
7	All of them
8	Other (please name it)

QT22	**Who does provide your mobile banking service?**
1	A bank (please name it)
2	A bank and a Mobile operator together (please name it)
3	A mobile operator (please name it)
4	Another company (please name it)
5	I don't know

QT23	**Do you trust mobile money?**
1	Yes
2	No

QT24	**If YES, please explain it (multiple choices)**
1	I trust my money with mobile money.
2	There is a legal guarantee mechanism behind the systems and services.
3	It is reliable.
4	Transactions can be done at anytime.
5	Mobile money can provide a secure transaction
6	Mobile money can provide a timely transaction
7	I trust the providers (bank or mobile operator whom provide mobile banking)
8	All of them
9	Other (please name it)

QT25	**If NO, please explain it (multiple choices)**
1	I do not trust my money with mobile money.
2	There is no legal guarantee mechanism behind the systems and services.
3	It is not reliable.

4	I cannot do transaction at anytime that I need.
5	I doubt the security of transaction.
6	It takes time to make a transaction. It is not timely.
7	I don't trust the providers (bank or mobile operator whom provide mobile banking)
8	All of them
9	Other (please name it)

QT26	**Do you think the bank officers trust you?**
1	Yes
2	No
3	I am just a depositor

QT27	**If YES, please explain it (multiple choices)**
1	I have a good amount of money in my account
2	I always pay my instalments on time
3	I understand the technical and banking terms and concepts
4	I have a good and profitable business
5	I work for the government
6	I am from the same region as the bank.
7	I only use the services of this bank.
8	All of them
9	Others (name it please)

QT28	**If NO, please explain it (multiple choices)**
1	I am poor
2	I cannot pay my instalments on time.
3	I do not understand the technical and banking terms and concepts
4	My income is low.
5	I do not have a job
6	I am from another region
7	I use banking services from other banks
8	All of them
9	Other (name it please)

Chapter 5. Analysis of Data From Questionnaires: Descriptive Statistics

5.1 Introduction

This survey was designed to collect data on factors affecting the level of financial literacy, inclusion and trust. The financial literacy and inclusion questionnaire included 67 questions; 10 demographic questions (gender, religion, income, and so forth), and 57 questions on financial literacy and financial behaviour. I employed the five-point Likert scale to measure some financial literacy and inclusion elements. Participants indicated their level of knowledge, usage and the quality of provided services on this scale; one was the lowest and five was the highest.

The trust questionnaire included 28 questions assessing its dimensions; trustees, trustor, and context; 17 questions assessing the level of trust in the banking system and the impact of the bank ownership (private-owned banks vs public-owned banks), 7 questions looking into the trust in financial services and products, and the last two questions analysing the self-confidence.

The sample is composed of 470 individuals from micro/small enterprises and employees (public/private). The numbers of male and female participants were equal. The data collection and entry were completed between March and June 2021. The following sections provide a preliminary analysis to give a general overview.

5.2 Socio-demographic Characteristics of the Study's Participants

I aimed to explore the role of financial literacy and trust in access to and usage of financial services. Furthermore, the impact of gender on financial literacy and financial inclusion is also targeted.

Since the sample should reflect the socio-demographic characteristics of the population under the study, choosing the right proportion of participants is of utmost importance. Based on the data from the Ethiopian households' consumption-expenditure (HCE, 2016), more than 70% of the people in Ethiopia live in the rural area; therefore, the location of the residence (Urban/Rural) is the primary stratification; 70% of the participants were from the rural areas. The second and third categories are gender and occupation. Concerning the occupation, participants were selected from employee and self-employed groups with access to financial services and products; self-employed included micro and small enterprises. Employees were chosen from individuals employed in the public and private sectors, e.g., school teachers and health professionals. In micro and small enterprises, business owners from various sectors, such as the service (hospitality and personal care services), manufacturing, trading, and agricultural services.

Other socio-demographic characteristics of the respondents, such as the level of education, marital status, age group and income quantiles, were also provided through this survey.

5.2.1 Location, Gender, and Occupation

As mentioned above, many Ethiopians live in rural areas; hence, only 30% of the sample was chosen from the urban areas. Jimma city would be the urban area in this study set since it is the largest and most populated city in the Jimma zone. Small towns in the Jimma district, such as Kersa, Mana, Chokorsa, Gomma, Nada, Sombo, and Agaro, were regarded as rural areas. Of 470 participants, 321 (around 70%) were from rural areas, and 149 (around 30%) were from urban. The proportion of males and females was chosen to be equal; 235 respondents from each sex represented rural and urban residents. Furthermore, a similar ratio of men and women was chosen for each subcategory of the occupation.

Ethiopia's age structure has changed during the past decade but still is a young country, with 40% under 15 years old (Statista, 2020). 80% of the population were aged between 20 and 39 years in the rural and urban areas; most of them worked as micro business owners. Also, around three-quarters of the participants were married and heads of the family.

Around 60% of respondents were low-earners with an income of less than

10,000Bir on average. Half of the employees had a Bachelor's (undergraduate) degree, and almost half of the business owners had a high school certificate. In the employee group, 15% had a graduate degree; the figures for micro and small enterprises were 1 and 3%, in turn. The level of education among employees was higher than in the other groups. Considering gender and education, a quarter of males and females had an undergraduate degree, while one-third held a high school diploma. An equal proportion of men and women held a master's degree and above: only one female participant was completely illiterate.

5.3 General Overview of Responses

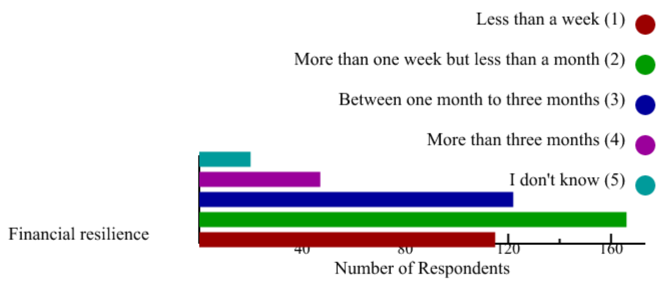
5.3.1 Financial Literacy and Inclusion

It has been ascertained that having regular earnings positively affects well-being and financial literacy (Lusardi and Mitchell, 2014). Furthermore, lower-paid people demonstrated a lower level of financial literacy (Lusardi and Tufano, 2015). In a low-income context of rural areas in India, Carpena et al. (2011) concluded that even financial training programs might not increase numeracy (one of the essential skills of financial literacy) change.

In this research, nearly 90% of interviewees indicated that they have a regular income. At the same time, the most immense proportions belonged to the third (5,001-10,000 Birr) and the second income groups (1001-5000 Birr), 32% and 31% respectively. Fifty individuals (12%) from those with a regular income earned less than 1,000Birr, whereas 22 respondents (5%) made more than 20,000 Birr. Almost all those without steady income indicated some uncertainty in their earnings, making them financially vulnerable.

The household's ability to cope with financial crises, such as losing income, was investigated to assess resilience. Though the majority of the sample had a regular income, it does not mean they have a good level of financial resilience. Among the survey participants, around 60% did not have enough assets and saving to survive more than one month without any income. Almost half of this 60% could not meet financial obligations after a week without any earnings, which shows the fragility of their financial position. The figure for those who could live on for more than three months without income was 10% (Figure 5.1). The reason behind asking this question was to check whether the participants had an emergency fund to overcome unseen financial disasters.

Figure 5.1 *Assessing the level of financial resilience amongst the respondents. Question: If you lose your income, how long your assets or saving would last to meet your living expenses?*



Knowledge about financial services and products has been acknowledged as an essential part of financial literacy by almost all of the scholars working in this field (Klapper and Lusardi, 2020; Nicolini and Haupt, 2019; Lusardi and Mitchell, 2014; Moore, 2003; Delavande et al., 2008; Hsu, 2011). Lusardi and Mitchell (2014) saw it as an investment in human capital to enhance well-being. Hence, I evaluated the level of knowledge and usage of everyday products and services, such as saving accounts, mortgages, mobile money, life insurance, and so forth. Saving accounts were the most popular product, and almost all respondents had heard about them. More than 80% were frequent users, and 8% used it once or twice. Nearly all respondents knew it was possible to open a bank account with less than hundreds of Birr, and almost 70% pay their bills through banks. However, their knowledge of current accounts level of knowledge and usage was much lower. Around 60% knew about current accounts, and just under a quarter were frequent users.

In contrast to saving accounts, nearly 80% of people had never heard of weather insurance which came bottom of the list in terms of the level of knowledge and usage. This was a bit surprising as this product was designed for people in rural areas and offered financial protection in case of adverse weather. Since Ethiopia has a long history of drought and famine and a large part of this survey was conducted in the rural area, it was expected to see a higher level of knowledge and usage. The statistics for life insurance was so much better than weather insurance, yet not satisfactory; one-tenth of respondents were frequent user, and only one-third of the sample did not know anything about it. In general, only one-third of the population under study had insurance, with 70% health insurance, 16% life insurance and 10% car insurance. It is noteworthy that nearly half of them indicated that they could not financially afford to buy insurance.

Mobile money was another service worth studying due to its popularity in this geographic region. Depending on infrastructure, rules and regulations, M-banking could be presented in two models; the bank-led or the non-bank-led model. In the non-bank-led model, the customer has no direct interaction with the bank; M-PESA by Safaricom is a good example of this model. In Ethiopia, both models are available; CBE-Birr by the commercial bank of Ethiopia and M-Birr provided by six leading Ethiopian financial institutions. The presence of agents in both models could impact the level of trust.

A study on M-Pesa by Morawczynski and Miscione (2008) concluded that interpersonal trust between agents and customers was weak, yet, customers trusted Safaricom and found it trustworthy. It appeared that people relied on M-Pesa because it was related to Safaricom. In the case of Ethiopia, both providers had agents, yet, CBE-Birr, with Commercial bank of Ethiopia as the service provider, had a more robust brand than M-Birr. Three questions covered this financial service; the first question was about mobile money in general and the level of knowledge and usage; the remaining two were about two service providers, CBE bank and M-Birr. Interestingly, 70% of the participants knew about mobile money, with 28% frequent users and 12% occasional users. The figures for CBE-Birr were similar, 28% regular users and 11% occasional users. As for M-Birr, the first service provider in Ethiopia, around one-third of the respondents had never heard about it. Less than half of the sample group knew about it, and only 10% of them were using this service frequently. Though mobile money was well-known, only a quarter of participants knew about digital payment, and more than half of them had never heard about it. It was striking that people were using the service, yet they did not have fundamental knowledge about the concept. However, when asked about their mobile banking providers, only one-fifth of the respondents "I do not know".

Demirgüç-Kunt et al. (2020) argue that mobile money and other financial services are potentially accessible just through a simple mobile phone. Access to financial services through mobile money could increase financial inclusion for rural areas, especially the unbanked.

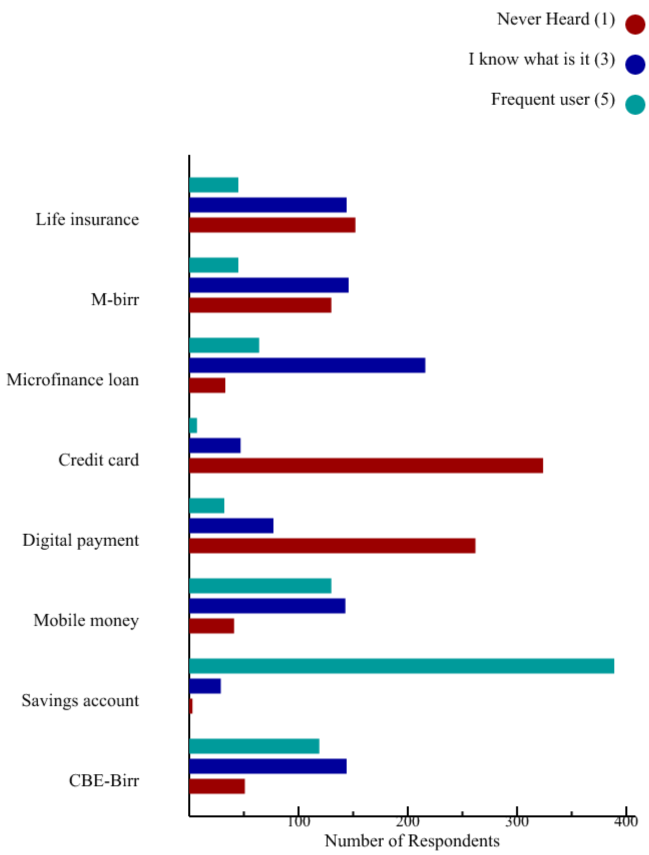
In connection to money transfer, a large proportion of participants (68%) have transferred money through the bank. The figures for sending and receiving money through the bank during the last 12 months were 75% and 68%, respectively. Interestingly, 9% and 7% used mobile money to send and receive money during the past 12 months. Credit card is not a prevalent service in Ethiopia; hence it is not unexpected to see that nearly 70% of people have never heard about them.

As for microfinance loans and mortgages, figures contrasted each other. Three-quarters of participants knew about microfinance loans, while the proportion for the mortgage was one-third. Also, the number of frequent users of microfinance loans was four times more than that of mortgages. Though these products have a similar ground, one was widespread, and the other was unknown.

Investing in cryptocurrencies and the stock market has become prevalent worldwide. But, in Ethiopia, the level of knowledge and usage, especially for cryptocurrency, was low due to the lack of access. Just 6% of respondents knew about cryptocurrency, yet, only 14% of them were willing to buy it if it was available. As for the stock market, half of the people had some knowledge about it and were ready to invest their money in this market. Notwithstanding, investing in the stock market is not available for Ethiopians. Figure 5.2 summarises the participants' responses on their level of knowledge and usage of financial services.

Financial behaviours were another subject of interest in this study, and specific behaviours, like, expenditures, prioritising expenses, saving, and sending and receiving money, were assessed. Tracking the expenditures is an essential financial behaviour that helps households meet the end. Analysing data from 1004 respondents in the US in 2001 demonstrated that 79% track their expenditures, and 89% have checking accounts (Hogarth et al., 2003).

Figure 5.2 *Assessing the level of knowledge and usage of financial products amongst the respondents. Question: How much do you know about the following financial products?*

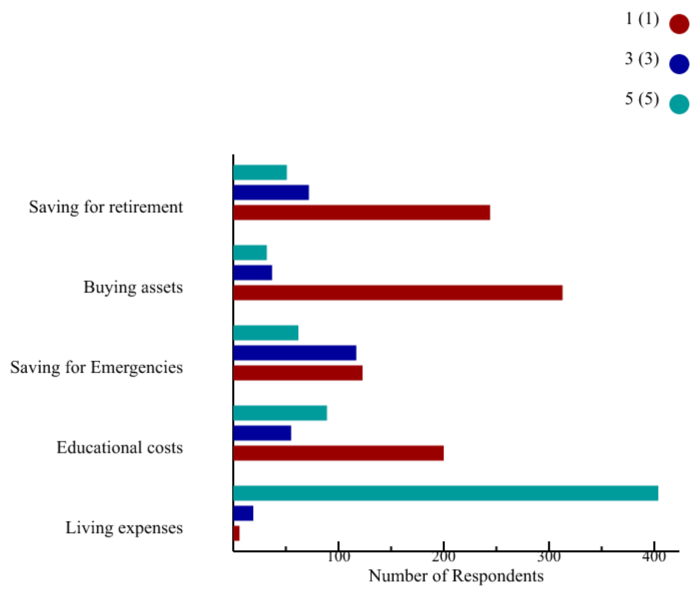


Nearly half of the participants in this study kept an expenditure log. Almost half of the respondents kept track of their expenditures; there is no data on how they learnt and started to keep expenditure logs due to the lengthy survey. Out of all respondents, only one-third could keep the balance between their income and expenses. The others had to cut down their expenses, borrow money or use their saving to meet the end. This might have roots in their choices of expenditures; only 13% of the participants chose five on the five points Likert scale for the "Saving for the emergency", while almost half of the people chose one or two.

On evaluating the priority of the household expenditures, living expenses had the highest rate whilst buying assets (house, farm, livestock) ranked the last. Paying for the children's educational costs was the second priority after living expenses. Compared with living expenses and educational fees, only 11% of respondents gave five on the

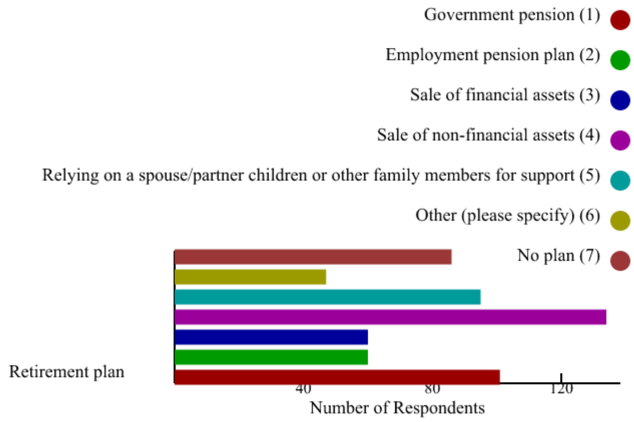
Likert scale to saving for retirement (Figure 5.3).

Figure 5.3 *Assessing the priority of the household expenditures amongst the respondents. Question: How do you spend your money? On a scale of 1 to 5, please rate your preferences.*



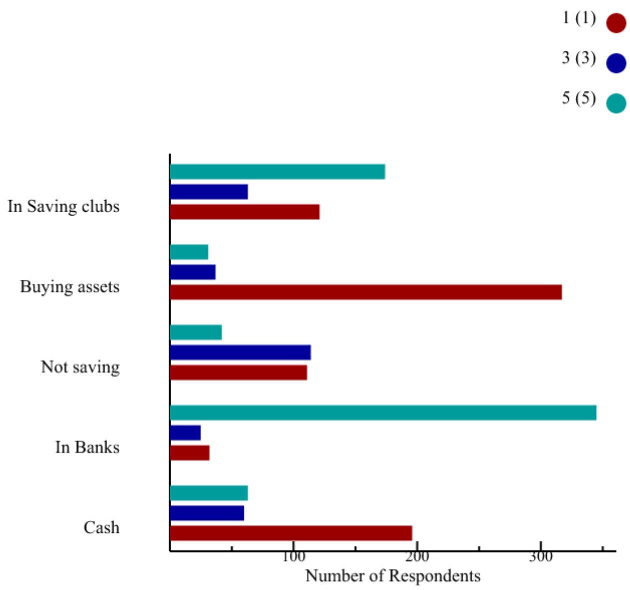
Saving for retirement is one of the financial behaviours seen in financially savvy individuals. To be financially off during retirement, planning and saving are of utmost importance (Lusardi and Mitchell, 2014). Understandably, fewer people in developing countries have social security benefits. In Ethiopia, full-time employees (both private and public sectors) would receive pension and disability benefits from their employers. However, two-thirds of our sample were categorised as micro/small enterprises; hence it was expected to see better results with regard to planning for retirement. In another question, participants were asked about their retirement plan; "selling financial and non-financial assets" had the highest rate with 33%. Around one-third had a government or employer pension, whilst a similar proportion had no plan or chose to rely on a family member (Figure 5.4). van Rooij et al. (2012) reported that an increase in financial literacy would increase disposable income, enhancing retirement planning.

Figure 5.4 *Assessing the financial planning skills of the respondents. Question: What is your plan for retirement?*



In this survey, using a bank account for saving extra money (the income after deducting the living expenses) was the most popular choice, with 73% of individuals giving it the highest rank. The tendency toward saving the extra money in cash was low since around 70% rated it 1 or 2 on the Likert scale. Another interesting result was the popularity of informal saving systems such as saving clubs, with more than half of the respondents rating them 4 or 5 (Figure 5.5).

Figure 5.5 *Assessing the financial planning and money management skills amongst the respondents. Question: If you have any money left, what do you do? On a scale of 1 to 5, please rate your preferences.*



Overall, more than 80% of the sample saved money during the past 12 months; 59% in banks and 33% in saving clubs. Of those who did not save during the past 12 months, 6% indicated that they do not have a bank account. These findings differed from the Standard & Poor's Ratings Services Global Financial Literacy Survey (S&P Global FinLit Survey). Based on S&P results, around half of adults saved money, and only 27% used banks for saving (Klapper and Lusardi, 2020). In the report provided by Findex (2017), just 43% of adults in developing countries saved money, with 21% using their bank accounts for saving money (Demirgüç-Kunt et al., 2020).

In order to have a sound financial plan for the extra money, one needs to have a good understanding of inflation and saving interest. Based on the data provided by Statista on the inflation rate in Ethiopia, the average inflation rate in Ethiopia amounted to about 20% in 2020 compared to 2019.

In the sample under the study, around half of them believed the inflation rate is more than 30%; one-third chose "I don't know", and only 11% ticked the box for (11-20%). Though most of the respondents did not know the inflation rate, many of them had a good understanding of its effect. The percentage of those who acknowledged that the value of their money would reduce with inflation was 70. One-fifth of participants assumed the value of their money would increase after a year. In the Standard & Poor's Ratings Services Global Financial Literacy Survey (S&P report), more than 60% of the population in the advanced economies knew about inflation; in contrast, only 47% of people in the emerging countries were aware of the inflation rate. The figures for numeracy in advanced and emerging economies were around 60 and 49%, respectively.

Similar to Moore's study in 2003, people frequently failed to understand compound interest. Only 16% of individuals answered the question correctly, while the majority of the participants chose the "I don't know" option. Numeracy and understanding interest compounding is essential knowledge for making a financial decision in terms of saving and borrowing. A good level of numeracy skills could protect people from mortgage defaults (Gerardi et al., 2013). Also, there is a high possibility that mortgage default was one of the main reasons behind the financial crisis in 2008 (Gerardi et al., 2013). Gerardi et al. (2013) chose their sample from borrowers that took out subprime mortgages in 2006 and 2007. They reasoned that taking a mortgage with unfavourable terms, considering the borrowers' financial situation, could have affected mortgage delinquency.

Financial literacy is the primary variable influencing financial behaviours such as saving, money management, and investment (Hogarth et al., 2003). Aligned with other research, I showed that people do not follow recommended financial practices.

Figure 5.6 *Assessing the skills and knowledge of using financial services amongst the respondents. Question: Which of the following services have you used?*

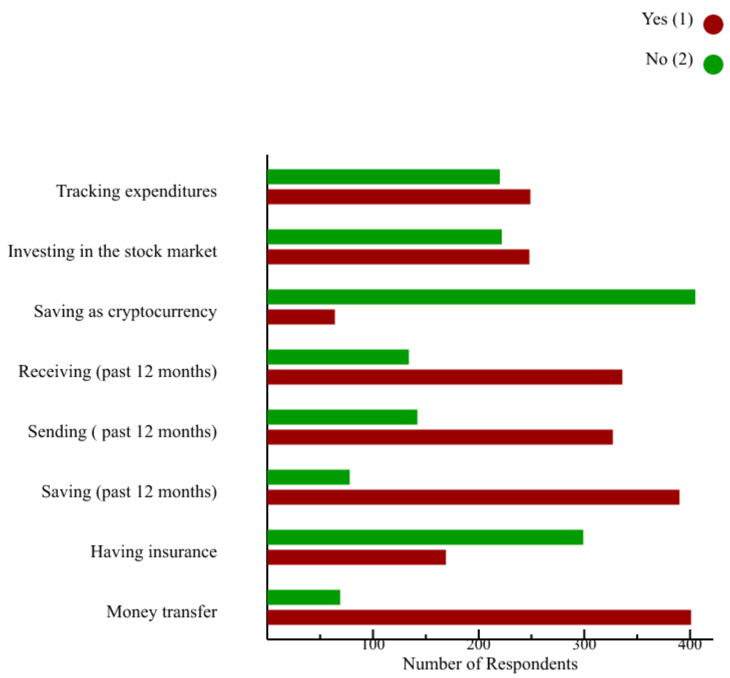


Figure 5.6 explores the basic financial behaviours amongst the respondents.

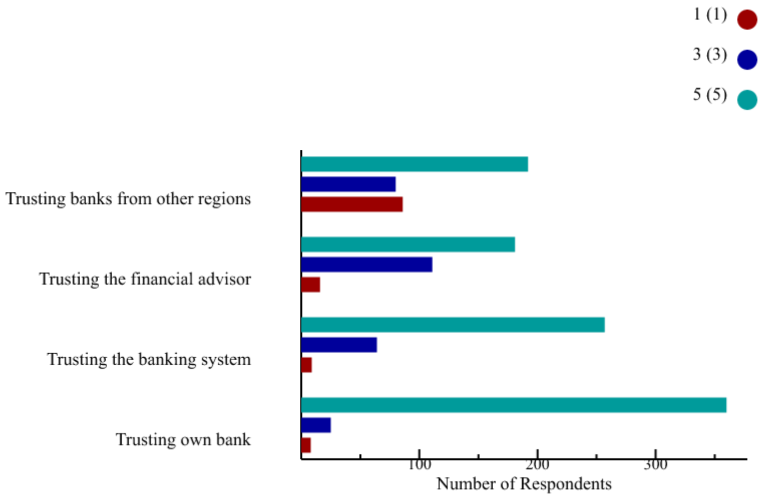
5.3.2 Trust

Trust is an essential foundation of financial markets and has a considerable impact on financial behaviour. Trust in financial institutions could have various forms and definitions, and there are numerous reasons we trust them. Sirdeshmukh et al. (2002) stated that trust in the financial institution is "the expectation held by customers that the service provider, in this case, the bank, is dependable and can be relied on to deliver its promises." As for the participants' perspectives, there was not any answer widely agreed upon. Nearly one-fifth of respondents stated that they trust financial institutions because they believe their money is safe with them. The second and third most popular answers were the reliability of these financial institutions and accessibility of money in the time of need, with 15% and 10% prevalence. Almost 10% trusted financial institutions because of their data protection and security of transactions.

Though trust in the banking system and financial institutions has generally decreased in many countries after financial crises (Hurley, Gong, and Wagar 2014), the situation in Ethiopia was different. In this survey, around 80% of respondents had complete trust in their bank and 55% had complete trust in the banking system. Trust in the banking system could be seen as a broader scope of institutional trust; institutions and service providers in the banking business should be dependable and relied on to fulfil their tasks and promises (Sirdeshmukh et al., 2002). Also, based on institutional theory, system trust positively impacts institution trust (Hansen, 2012), hence, causality goes from system to institution. Hansen (2012) surveyed two mortgage and pension customer groups and demonstrated that financial healthiness, knowledge, and satisfaction positively affect institution trust (Xiao et al., 2006) defined financial healthiness as the financial sufficiency of the customer). Yet without any actual experience, how can one decide to trust a system? The counterargument is the reverse causality, which means a positive encounter with an institution would increase trust in the system composed of that institute. In this sample group, a large proportion had full trust in their bank than the banking system. Also, more than 40% fully trusted banks from other regions, such as Amhara, which was oddly more than their trust in financial advisors, considering Ethiopia's political and tribal crisis. Around one-fifth of respondents did not trust banks from other regions at all; that of the financial advisor was just 3%.

Due to the complexity of the financial market, delegating financial decision-making jobs to financial advisors has been advised (Lusardi and Mitchell, 2014). Still, a low level of trust might impede it from happening. Therefore, assessing the level of trust in financial advisors was also incorporated into the research. Of all those interviewed for this study, just 39% completely trust their financial advisor. Those who chose four on the Likert scale (5-point scale) were not more than 15%; the corresponding percentages for the banking system, financial advisor and banks from other regions were 28%, 27%, and 17%, respectively. The proportion of those who chose to be in the middle of the scale for trusting financial advisors was almost two times more than that of trusting the banking system. A review of respondents' perspectives has been provided in Figure 5.7.

Figure 5.7 *Assessing the level of trust in the banking sector amongst the respondents. Question: On a scale of 1 to 5, how much do you trust the following institutions and people?*



Trustworthiness arises from the reputation of the trustee. A large proportion of the respondents (95%) were willing to recommend their bank to their family members because of the large number of branches, high-quality services, and trustworthiness. The prevalent answer for not recommending their bank was the financial instability of those banks. Some of these criteria were in line with Sekhon et al. (2014). Expertise, integrity and consistency, communications, shared values, and concern and benevolence would affect trust. Furthermore, these researchers explained that trust and trustworthiness are different by using confirmatory factor analysis. Their empirical study analysed 450 sample cases from five waves of data (annually, starting from 2005).

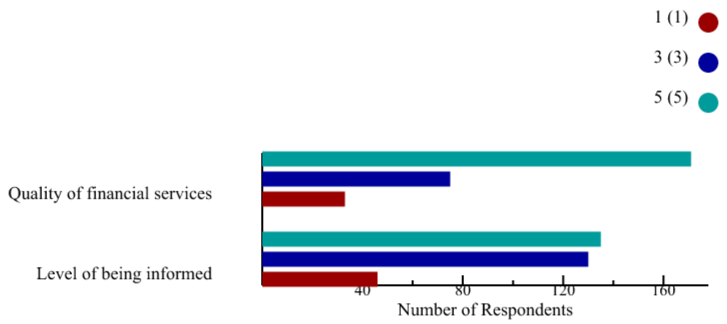
The ownership of financial institutions (private or state-owned) could also impact trust among customers. It has been argued the ownership of the banks could affect their performance. In Africa, it appears that private banks have not succeeded in outperforming state-owned banks yet (Figueira et al., 2005). Better performance, a higher level of integrity, and accessibility could bring more customers to state-owned banks than private ones. Hence, it is fair to say that state-owned banks have some trustworthy elements; in other words, the types of ownership of financial institutions (private or state-owned) could influence customers' trust. Yet, more than half of the respondents had bank accounts in both private and state-owned banks in our survey. A similar proportion stated they trust both private and state-owned banks. People who trusted both private and state-owned banks believed that banks are highly regulated and treat customers fairly. Another interesting finding was that 45% of the respondents trusted only state-owned banks, not private, while 3% trusted only private banks. No wonder just 10% of respondents had an account in private banks compared to 37% of account holders in state-owned banks (only state-owned ones). Notably, the percentage of those without bank accounts was negligible (1%). As for the reasons behind this trust in state-owned banks, the type of ownership, treating customers fairly, and financial stability (zero possibility of bankruptcy) had the highest rate. Our results demonstrated that the type of ownership could influence trust among the customers. Those in favour of private banks indicated that this type of bank has good customer relationship management; in terms of treating customers and responding to complaints. Lack of such a good CRM was the most popular reason among this group of respondents not to trust state-owned banks.

Trust in financial services and products varies from trust in banking or financial institutions. Ennew and Sekhon (2007) believed that trust in financial services stems from "an individual's willingness to accept vulnerability on the grounds of positive expectations about the intentions or behaviour of another in a situation characterised by interdependence and risk." Among the participants, just 58% trusted ATM or electronic banking and preferred them over physical branches. One-third of this group said the banks are always crowded; a similar proportion voted for "having a problem with bank opening hours" and "safety of their money". Of those 42% remaining, around one-fourth were not happy about the range of services provided by ATMs. More than 40% worried about the limited access to these machines or the safety of their money.

Although mobile money was well-known in this community, only 50% of interviewees trusted it; half of this group reasoned that transactions are timely and can be done at any time; also, their money is safe. Those who did not trust this financial service were concerned about the safety of their money (21%), the security of transactions (18%), and its reliability (19%). Some people (12%) were also worried about the legal guarantee mechanism behind the systems and services. In this competitive market, working on trust relationships is the key to having loyal customers (Sekhon et al., 2014). Slade et al. (2015) studied 268 non-users of remote mobile payment in the UK on the importance of trust in remote mobile payment and its adoption. The results illustrated that trust positively impacts behavioural intention among non-users to adopt this technology. Noteworthy, the trust had a more substantial impact on those with existing knowledge about mobile payment.

The good level of trust in their banks among participants could result from high-quality financial services and products. The majority of people were happy with the quality of provided services and products; more than 70% rated them excellent/very good. Only 3% believed the quality of the provided services and products is poor. Furthermore, our data showed that one-third of the study group acknowledged being well-informed about banking services and products. A similar proportion stated the level of the provided information is good, and one-fifth believed it is very good. Just 10% said they were not informed at all (Figure 5.8).

Figure 5.8 *Respondents views on the quality of the financial services and level of being informed. Question: On a scale of 1 to 5, what is the score for the quality of the provided information and services by the banking sector?*



The final part of the trust questions was bout the perception of customers about bank officers; whether officers trust them. Around 60% of respondents thought they were trustworthy and bank officers trusted them; understanding the banking concepts (22%) and being loyal (18%) were the most assumed reasons. Other reasons such as paying the instalments on time (13%), having a profitable business (12%), and working for the government (11%) with a similar percentage were also frequently chosen by participants.

Based on the participants' perceptions, it can be concluded that officers did not trust customers due to the lack of money. In contrast, one-fourth of participants felt the bank officers did not trust them. Answers such as having a low-paid job (40%) or being poor (26%) were common. Lack of knowledge about the financial concepts was selected by 16% of interviewees in this category.

5.4 Categorical Comparison

As mentioned before, the sample group was classified into three groups; job category, gender, and location. The job category was composed of three subcategories; Employees, small enterprises, and micro-enterprises. In the location category, one-third of the respondents were selected from the urban areas (Jimma city), and the remaining were from rural areas (districts). And the number of male and female participants was even. In order to have a better understanding of the impact of occupation, gender and location on the level of knowledge and usage of financial literacy, I compared subcategories with each other. Hence, in this part, the comparison was internal in each category, i.e., men and women, urban and rural, and employees, small and micro-businesses. In the following part, the combined effects of categories were assessed; the comparison was between two or three categories, for example, females and males’ responses from rural and urban compared with each other.

5.4.1 Comparing the Level of Income, Financial Resilience, and Knowledge and Usage in the Job Category

(A) Financial literacy questions

Many researchers named the types of employment as a socio-demographic characteristic that influences financial literacy (e.g., Kempson, 2009; Yoong, 2010; van Rooij et al., 2011). There was also some evidence of the positive impact of this factor on financial literacy. Nicolini et al. (2013) gathered financial literacy data from four countries, the US, UK, Canada, and Italy, to evaluate these countries' differences in knowledge and behaviour. Seven groups, including employed and self-employed, were assessed in the employment category. The final results exhibited a positive correlation between self-employed and financial literacy. Similarly, self-employed individuals in the Netherlands had higher literacy scores (Alessie et al., 2011).

Ćumurović and Hyll (2019) studied the relationship between financial literacy and self-employment; their results were similar to those of Nicolini et al. (2013). It was also deduced that those with a higher level of financial literacy have a better chance of succeeding in self-employment. The financial literacy index was extracted from the German Save study data.

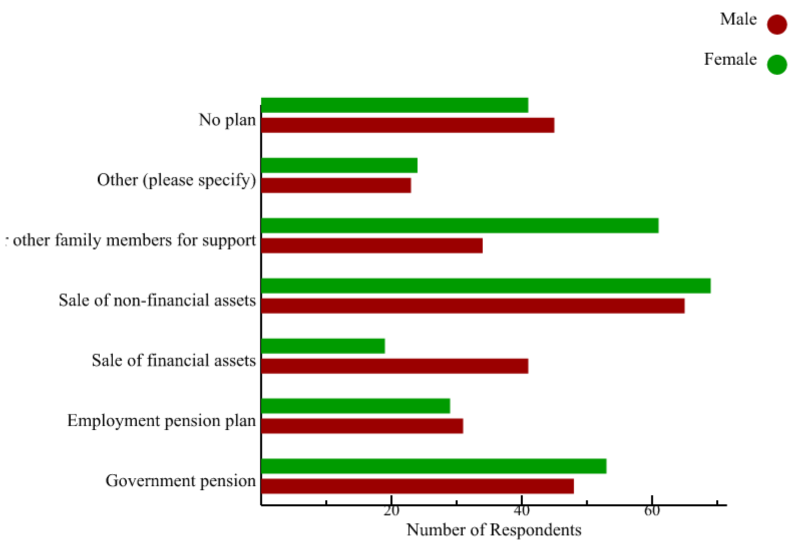
Due to the significant impact of job category on financial literacy and behaviour, the effect of employment types (employed or self-employed) was studied in this research. Each respondent falls into one of two classes for employment status, represented by two variables. The variable employee captures those respondents who an employer employs. Self-Employed captures respondents who work for themselves (small/micro-enterprises).

More than 60% of participants from the small enterprise group had a monthly income of more than 10,000Birr; the corresponding figures for the micro-enterprise and employed categories were 13 and 9%, respectively. Also, more than half of them had enough savings to overcome a financial shock, such as losing income for more than a month; 38% of microbusiness owners and 28% of employees were in this level of financial resilience. It should be mentioned that all of the respondents in the small business subcategory had a bank account, contrasting 1% accountless in the employees and micro-business groups.

Not surprisingly, almost all employed participants had a regular income; half of them kept track of their expenditures, but only one-quarter could make ends meet. Less than one-fifth of employees did not have a financial retirement plan which was smaller than those of the small and micro-enterprise groups. Plus, three-quarters of individuals in this category answered the question on inflation correctly. Yet, the small enterprise category defeated the other groups in the proportion of people with good numeracy skills.

The probability of encountering financial difficulties for self-employed individuals is so much higher than for employed due to the lack of access to a formal pension. Hence, retirement planning should be of utmost importance for pensionless people. Koh and Mitchell (2019) analysed the differences in financial literacy considering employment status. By applying data from Singapore Life Panel (6,686 respondents aged 50-70), they observed a similar pattern of saving and investment between employed and self-employed. Moreover, they did not find differences in preparing for retirement between employed and self-employed. The difference between those with a higher level of financial literacy versus those with a lower level was negligible, comparing self-employed and employees. Our data illustrated a gap in retirement preparation between these two categories (Figure 5.9).

Figure 5.9 *Comparing the financial planning skills of the male and female respondents. Question: What is your plan for retirement?*



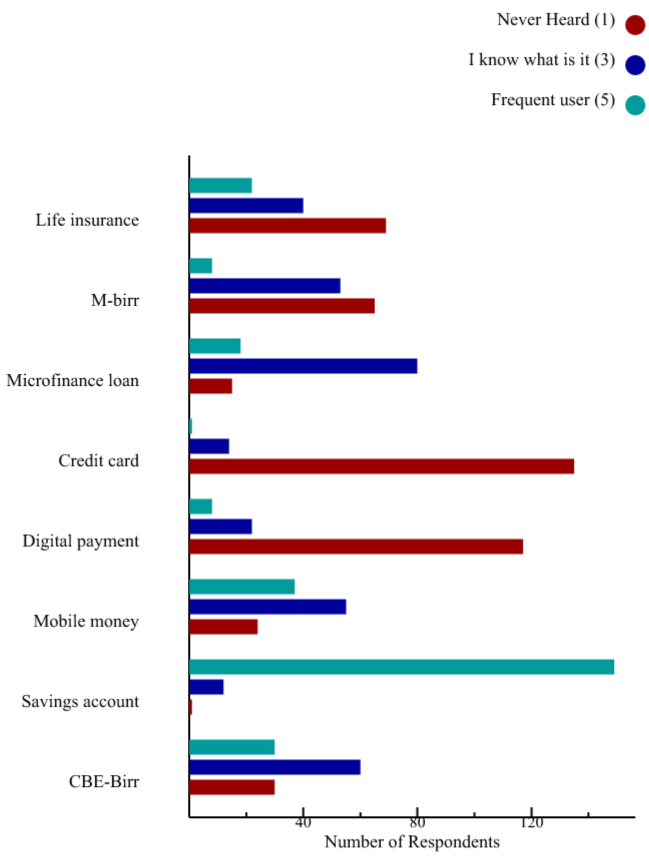
Around 80% of the self-employed respondents (micro and small businesses) earned steady; more than half of the small business owners had an expense log and gained enough to cover their living costs. In the meantime, the relevant numbers for the micro-businesses were 46 and 29%.

Cramer et al. (2002) showed that entrepreneurs are more risk-takers in the context of investment. Amongst three job classes, a bigger group of small enterprise owners had a high-level income, kept track of their expenses, and were able to make ends meet. They were risk-takers; more than half were willing to buy shares from the stock market; this figure was comparable to the employees.

Looking at the data, the real competition in the level of knowledge and usage of financial services was between the employed and small enterprise categories. Life insurance was the only product with a higher number of users from the micro-enterprise class. Figure 5.10 depicted the level of knowledge and usage among the owners of the micro-businesses. Yet, the sum of all policyholders in the small business group was greater than employees and micro businesses. Most micro-enterprises were low earners, failed to save for retirement and emergencies, and exhibited a lower financial resilience.

Likewise, in her work, Loibl (2017) described the characteristics of low-income individuals and gathered that these personal traits negatively affect their financial behaviours. Failing to save for retirement and emergencies and borrowing from high-interest informal financial services were some of those features. Based on her article, people at the bottom of the income quantiles had a lower level of formal education and a lower level of financial literacy in financial planning; they were good at financial management like budgeting and keeping track of their expenditures. Nevertheless, she stated that poverty limits access to credit; hence their ability to overcome financial shocks such as losing income or health issues would be reduced. Yet, in our study, a small group of micro-enterprises kept an expense log and were able to make ends meet. Buckland (2010) held a similar opinion to Loibl (2017). By analysing data from qualitative field research in Canada, low-income individuals have a better level of financial literacy and could cope better in times of financial difficulty. It should be noticed that this research was conducted in a developed country with a variety of financial services available for poor and low-income individuals. On the other hand, Monticone (2010) stated that wealth positively impacts financial literacy, but it is very weak. This finding assessed data from the household income and wealth survey (2006), which covered 7,768 households and 19,551 individuals.

Figure 5.10 *Assessing the knowledge and usage of financial products amongst the micro-enterprises. Question: How much do you know about the following financial products?*



Returning to the employees and small businesses, though the difference between the proportion of saving account users from employed and small enterprise categories was negligible, the number of senders, receivers and savers in the small business group was relatively higher than in the other groups. In addition, owners of small businesses performed better in terms of the number of users for M-birr and CBE-Birr, even though more employees used digital payment and mobile money for financial purposes. As illustrated in Figure 5.11, around half of the small business owners applied for microfinance loans; this number was significantly higher than the other categories.

Likewise, the current account was adopted by more individuals from the small enterprise group. Concerning the lending products, like mortgages and credit cards, the sum of the users was less than one-tenth of all participants; both of these products were used by more employed respondents than self-employed ones, Figure 5.12 better displays the level of knowledge and usage of financial services and products among employed participants.

Figure 5.11 *Assessing the knowledge and usage of financial products amongst the small enterprises. Question: How much do you know about the following financial products?*

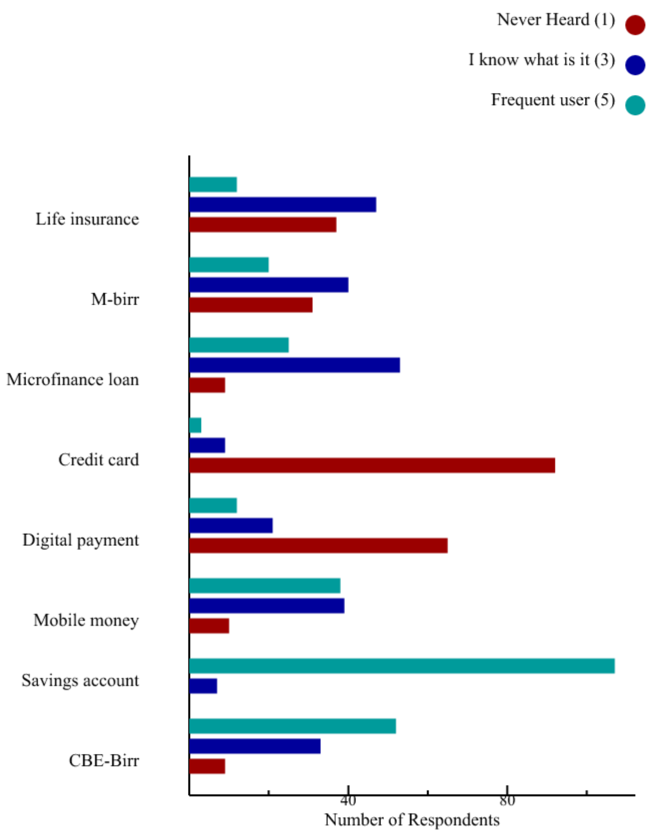
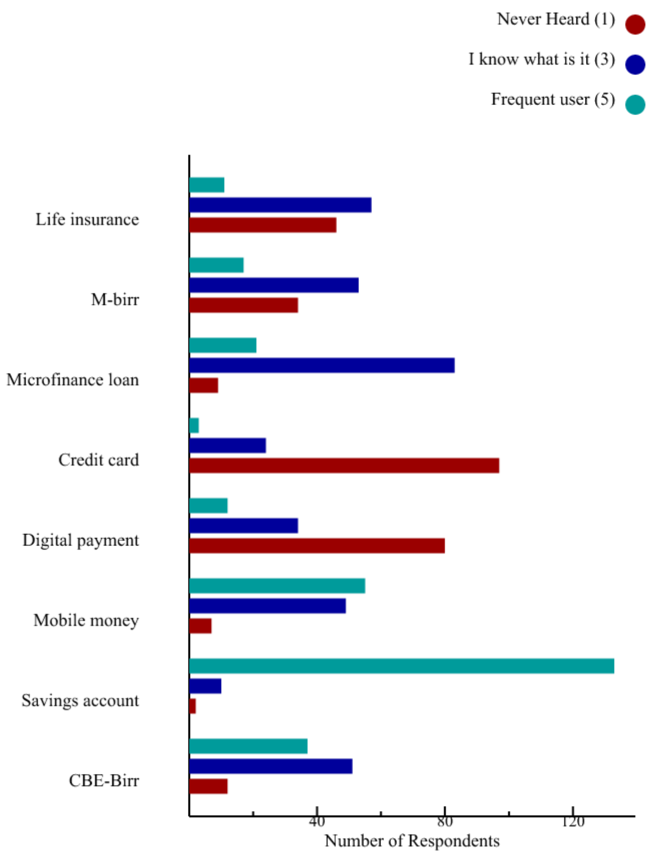


__Figure 5.12__ Assessing the knowledge and usage of financial products amongst the employees. Question: How much do you know about the following financial products?



(B) Trust questions

The higher number of mobile money users among the employed respondents could be related to their level of trust; the figure of the self-employed individuals who trusted this service was lower. Still, a slightly bigger proportion of small-enterprise owners believed electronic banking and ATMs are reliable. Furthermore, nearly three-quarters of the small business owners exhibited high self-confidence and thought the bank officers trusted them; others had a smaller proportion.

Interestingly, more people from the micro-enterprise group than the other subcategories believed in their banks, the banking system, financial advisors, and the quality of the services and provided information. But, trusting the banks from other regions was more prevalent among small business owners. Even though more participants from micro-enterprises trusted their banks, a smaller group of them were happy to introduce their banks to others; the highest number belonged to the small business owners.

The type of bank ownership was not an issue for the small businesses and employees since more than half of them trusted both private and state-owned banks. On the other hand, most respondents from the micro-enterprise category solely trusted the state-owned banks and tended to get services only from them.

5.4.2 Comparing the Level of Income, Financial Resilience, and Knowledge and Usage in the Location Category

(A) Financial literacy questions

It is noteworthy that the urban area in this setting refers to Jimma city, the capital of Jimma Zone, and the rural area applies to the districts.

Living in an urban or rural could directly affect the level of financial knowledge. Lusardi and Mitchell (2014) reviewed numerous economic studies on financial literacy to show its importance to the economy; one conclusion was that rural residents had a lower score on financial literacy. Furthermore, after analysing the data from Global Findex, Allen et al. (2016) ascertained that the possibility of having a bank account among rural residents is lower than urban people by three points. Yet, there is no significant difference in the usage in terms of location. Subsequently, they reasoned that living in a rural area could increase the possibility of financial exclusion.

Based on collected data from 1400 Russians, Klapper and Panos (2011) explored the relationship between financial literacy and retirement planning. They discovered that those who live in rural have a lower level of financial literacy they are less likely to have a plan for their retirement. On the interest rate, 45% of urban residents chose the correct answer compared to 24% of rural residents.

Financial means should be the first to be regarded in assessing the rural and urban data. It is a well-known fact that income through saving could enhance well-being and increase wealth; hence the economic importance of regular earning should not be neglected.

In comparing respondents from urban and rural areas, a larger group of urban people had a regular income, kept an expense log, and earned enough to make ends meet. On average, people from urban had a higher level of income. Around one-quarter of urban participants had made more than 15,000Birr per month, three times more than rural. Plus, at the bottom of income quantiles, the proportion of individuals from rural was more significant than urban ones. As expected, those who live in Jimma city exhibited better financial resilience. More than half of the city residents had enough savings to overcome a financial hardship like losing their income for more than a month; the corresponding figure for the districts was less than 30%. Similar to the work of Klapper and Panos (2011), having a financial retirement plan was prevalent among the residents of Jimma city, even though a similar proportion of the rural and urban residents prioritised saving for retirement. One-third of the respondents from districts had no financial plan for their old age. During the last twelve months, fewer rural residents saved money compared to the urban; the number of money senders and receivers was relatively higher amongst urban people.

In low-income societies, access to financial services is of utmost importance; many believe that having a basic bank account could be a door toward a better level of financial inclusion. All of the urban residents had a bank account, whilst 1% of the people from rural were accountless. Being financially knowledgeable was more observed amongst respondents from Jimma city than districts. They also had a higher number of users for financial services, such as mobile money, digital payment, saving accounts, and life insurance; yet, the sum of the general policyholders in rural was 19 points more than in urban. Lending products, like mortgages, credit cards, and microfinance loans, were adopted by more participants from districts rather than urban; consequently, more people in rural shown good numeracy skills. Yet inflation was better understood by more urban residents than districts ones.

Even though a more significant proportion of the people from Jimma city used mobile money, M-birr was favoured by more rural residents. There was no difference between the proportion of the CBE-Birr users from urban and rural areas. This could be related to the availability of M-birr agents in rural areas, which facilitated access to this service.

Novel methods of savings and investments, e.g. purchasing stocks or digital currencies, were favoured by a larger group of rural participants; most of the people in

Jimma city were risk-averse. Figure 5.13 and Figure 5.14 give a better understanding of the differences between the level of knowledge and usage of financial services and products amongst participants from Jimma city (urban) and district (rural).

Figure 5.13 *Assessing the knowledge and usage of financial products amongst the urban (Jimma) respondents. Question: How much do you know about the following financial products?*

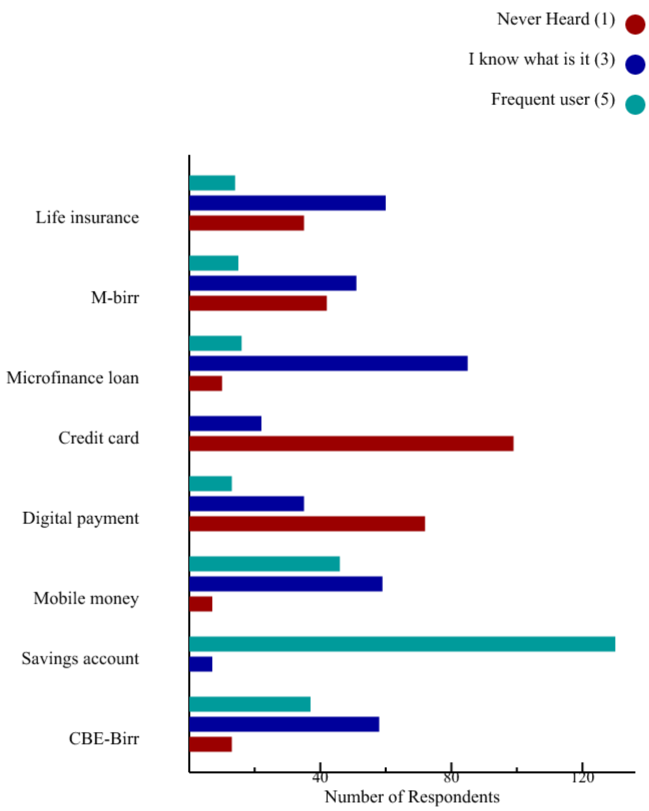
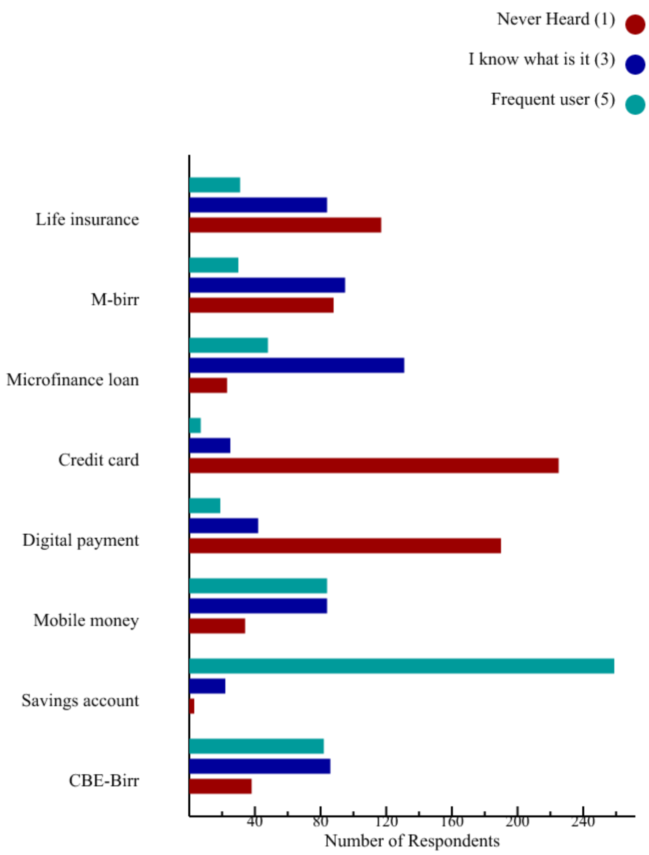


Figure 5.14 *Assessing the knowledge and usage of financial products amongst the rural (district) respondents. Question: How much do you know about financial products?*



(B) Trust questions

More respondents from the rural areas trusted financial advisors, the banking system, and banks from other regions; plus, a higher percentage believed the services and provided information are of high quality.

On the other hand, more than half of the urban participants found electronic banking, ATMs, and mobile money trustworthy. Furthermore, the number of people who completely trusted their bank was bigger in Jimma city; 98% of urban residents were willing to introduce their banks to families and friends. Nonetheless, 3% more people from rural than urban said the bank officers trusted them.

The majority of the urban residents trusted both private and state-owned banks and had an account in both of them. In the rural area, the number of those who trusted both private and state banks and those who only relied on the state banks was equal.

5.4.3 Comparing the Level of Income, Financial Resilience, and Knowledge and Usage in the Gender Category

(A) Financial literacy questions

A quick look at the data shows that the gap between men and women regarding their responses to the financial literacy questions is narrow. Yet, some of the critical differences will be described here. As mentioned before, having a regular income would improve the quality of life and enhance financial behaviour. A comparable percentage of male and female participants (around 87%) had regular earnings. Although having a steady income is essential, the determinant factor in terms of financial needs and even financial inclusion is the level of earnings. Based on their analysis of Findex 2011, Wale and Makina (2017) confirmed that high earners in Sub-Saharan Africa are more likely to have an account and use it. They also raised the issue of measuring income; the within-country income quantile might be a better way to analyse the income level and its impact on financial behaviour than the World Bank income group. Also, they ascertained that account ownership and saving through the account in SSA were affected by gender; this finding contradicted other scholars like Allen et al. (2012). As for this study, all of the females were account holders.

Concerning the sufficiency of income to cover living costs, the difference between males and females was only 1 point; around one-third of the participants indicated their income covers their expenses. Gender did not have a very significant impact on financial resilience; a slightly larger proportion of women (26%) compared to men (23%) were placed in the most fragile group (surviving for less than a week without income). It is noteworthy that the question on financial resilience on Findex was about coming up with an emergency fund equal to 1/20 of gross national income (GNI) per capita in local currency within the next month. In order to simplify the question, the questionnaire asked participants about a period in which they could survive without any income. The percentage of males in the most resilient group (enduring for more than three months without any income) was 4 points more than that of women (8%).

Analysing the knowledge and usage of financial services showed that an equal proportion of men and women knew about saving accounts. Yet, the number of frequent female users was slightly higher than men. This was opposite to the current account in which men showed a better level of knowledge and usage. The knowledge score for life insurance among male participants was somewhat better than that of females; only 29% of men had never heard about life insurance, in contrast to women with 35%.

Health insurance was the most popular one among policyholders.

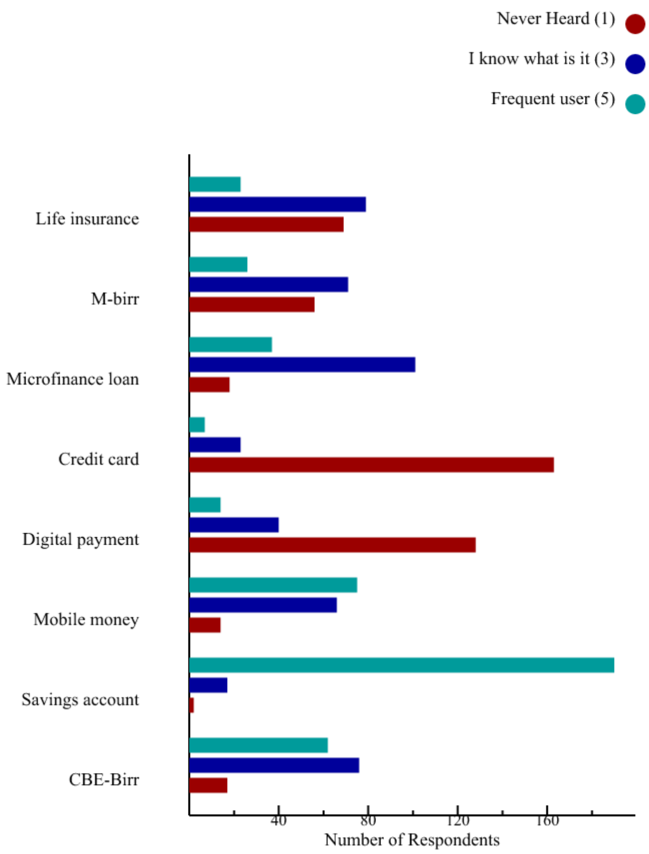
Though gender affected usage of neither insurance nor saving/current accounts, its impact was more pronounced for mobile money. While half of the men adopted mobile money, only one-third of women used it frequently or occasionally. Not surprisingly, more men knew about CBE-Birr than women, with 43% regular and casual users; the figure for female respondents was 35%. This figure for M-Birr declined for both men (19%) and women (10%). Usage of digital payment was a different story; 8% of women were using it frequently in contrast to 6% of men. Yet, in total, the proportion of men who had relevant knowledge and used this service was slightly higher than women. Demirguc-Kunt et al. (2018) suggested that mobile money has a notable effect on increasing financial inclusion, especially for women in developing economies.

Examining the collected data illustrated that a larger group of men sent and received money than women during the last 12 months. Another striking fact on the usage of financial services was that of the credit card with no frequent female users. Few women than men knew about these services on lending products, e.g., microfinance loans and mortgages.

The results of assessing the questions on personal finance like keeping track of expenditures, saving for emergencies and retirement, numeracy and inflation amongst men and women were interesting. Having an expense log and saving for retirement and emergencies were more common among men. Plus, a smaller proportion of men did not have any financial plan for their retirement, contrasting their female counterparts. Three-quarters of men answered the inflation question correctly, which was ten points more than that of women. But, the number of female participants who had good numeracy skills was somewhat higher. Other researchers (Lusardi, 2012; Lusardi and Mitchell, 2014) maintained that women had a lower level of numerical skill.

In this research set, I assessed the account ownership between men and women as well. Many researchers concluded that the number of accountholders is lower among women, and gender impacts it (Allen et al., 2016; Demirguc-Kunt et al., 2018; Wale and Makina, 2017). Nonetheless, our data revealed that the gender gap in account ownership in the Jimma Zone is positive. All females in the sample group had an account, either in private or state-owned banks or both. On the contrary, 1% of men did not have a bank account. More than half of the population under the study had an account in both private and state-owned banks.

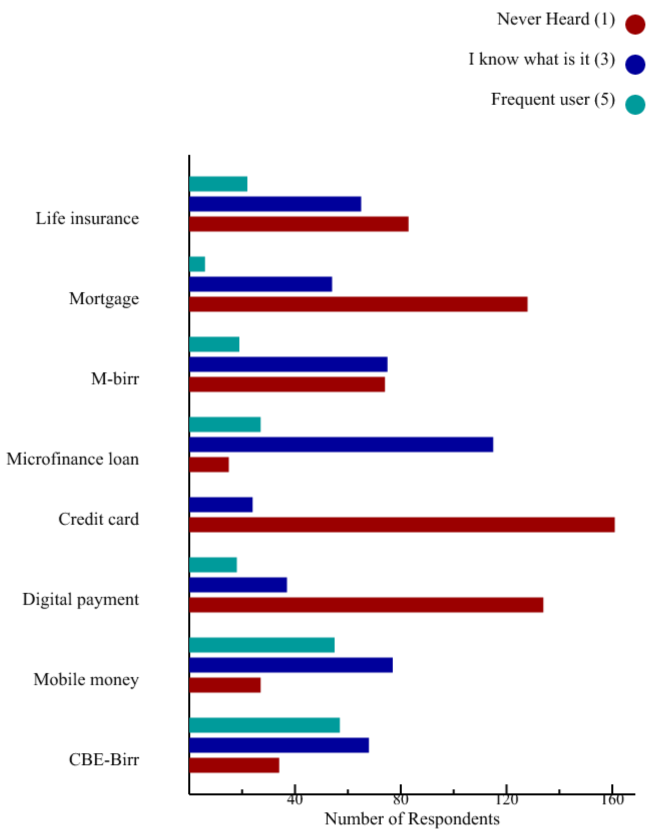
Figure 5.15 *Assessing the knowledge and usage of financial products amongst the male respondents. Question: How much do you know about the following financial products?*



Saving behaviour and preferred methods were comparable between male and female participants; saving in banks and saving clubs were the most prevalent methods, with 75 and 39% for females and 71 and 35 for males. In the Findex report (Demirgüç-Kunt et al., 2018), the gender gap for saving in financial institutions was 6 points in developing countries; our data showed a four-point difference. Similarly, both groups favoured saving in banks and saving clubs over other methods during the past 12 months. However, as displayed in Figure 5.15, a bigger group of male respondents gave the highest rate to saving for an emergency and retirement, more women saved money during the past 12 months.

On Economic Importance of Financial literacy, Lusardi and Mitchell (2014) pointed out that women are a better target for financial training programs than men since they know their level of financial literacy is not satisfactory. In our research, the proportion of females who chose the "I don't know" option was more than men in questions like the inflation rate, compound interest and mobile banking providers.

***Figure 5.16** Assessing the knowledge and usage of financial products amongst the female respondents. Question: How much do you know about the following financial products?*



From our results, it can be concluded that gender somewhat affected the level of knowledge and usage of most financial services and products; this effect was more substantial for mobile money, microfinance loans, mortgages, and M-birr. Figure 5.16 demonstrates the level of financial knowledge and usage among female participants.

(B) Trust questions

Trusting banks could facilitate the process of financial inclusion, yet distrust in financial institutions could hinder access and usage of financial services and products (Allen et al., 2016). What determines trust in banks? In their cross-country research, Fungacova et al. (2019) studied 52 countries and found that demographic characteristics, such as gender, age, education, religion, and income level, could affect the level of trust. They also recorded that access to TV and the internet had an opposite impact on trust; access to TV favoured trust in financial institutions.

Our observed data demonstrated that 79 and 41% of female participants had the highest level of trust in financial institutions and financial officers, respectively, which were 5 points more than those for men. An equal percentage of both genders fully trusted banks from other regions, yet a lower number of women chose "complete distrust" as opposed to men. Our results were in line with other researchers (Allen et al., 2016; Fungacova et al., 2019) that women trust financial institutions more than men. The only exception here was about the trust in the banking system; fewer female participants considered the banking system trustworthy. Both male and female interviewees believed their money in financial institutions is safe and those institutions are reliable.

Having an account in a particular financial institution is a sign of trust in that institution. More than half of the men did not care about bank ownership and trusted both private and state-owned banks, whilst most women only trusted the state-owned banks.

As mentioned before, trust has roots in the level of the provided information on financial services and the quality of these services. One out of three men in this study believed they were well-informed compared to a quarter of women. However, fewer men stated the services are of excellent quality.

Though more women trusted their banks and financial officers, fewer of them assumed the bank officers trusted them; more men demonstrated a good level of self-confidence. Women had less confidence in themselves. Around two out of three men said bank officers trust them, whilst the corresponding percentage for women was 57. As for the reasons, female participants gave the highest rate to "being loyal" (24%), "understanding technical terms" (20%), "paying the instalments on time" (13%), and "working for the government" (12%). This ranking was slightly different for men; "understanding the banking terms" with the highest rate (23%) and "being loyal"/ "having a profitable business" at second place (15%).

A quarter of both categories assumed they were not trustworthy in the eyes of the bank officers; most of these people were from poor and low-income quantiles. A low level of knowledge of banking terms and concepts was also common among male and female respondents, with 15 and 16% in turn.

5.5 Combined Affect of Categories on Financial Literacy, Inclusion and Trust

After analysing each category, the combined impact of different categories (two categories in time) will be assessed at this stage.

5.5.1 Job Category and Gender

Employees and Gender

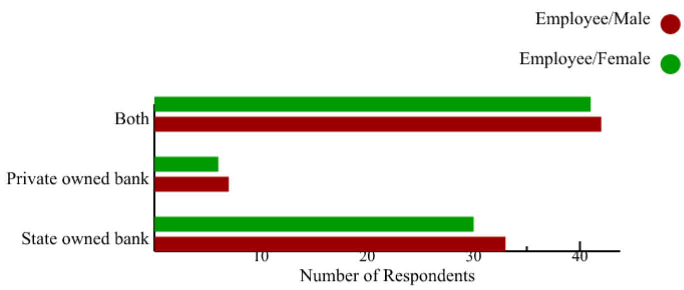
The following section will investigate the male and female employees' responses to the financial literacy and trust questions. Around half of the respondents in this group were aged between 20 and 29 years old, and the number of men is slightly bigger than the women. Most of the respondents were married and from rural areas. Half of the respondents had an undergraduate degree. The earnings of 46% of the individuals in this group were between 5,000 to 10,000Birr per month.

(A) Financial literacy questions

All of the women in this group had a regular income; half of them kept track of their expenditures. The proportion of the female employees at the bottom of the income quantile (0-5,000Birr) was two points less than men. In the middle of the income scale, 53% of men and 57% of women had a monthly income between 5,000 to 15,000Birr. One female and two male employees made more than 20,000Birr per month.

Women had a better level of financial resilience; one-third of them had enough savings and assets to cover their living costs for more than one month in case of losing income (Figure 5.17).

Figure 5.17 *Comparing the level of financial resilience amongst the male and female employees. Question: If you lose your income, how long your assets or saving would last to meet your living expenses?*



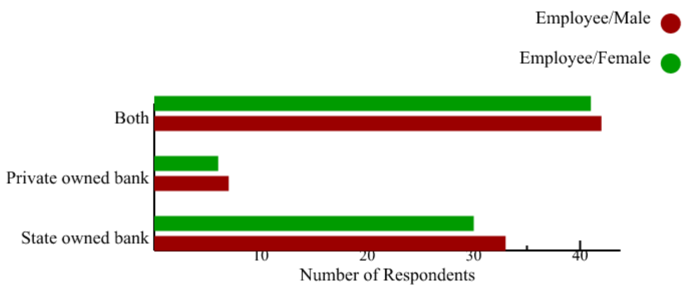
Among male employees, 96% had steady earnings, with 58% keeping track of their expenses. However, three-quarters of them could not survive a month without any income; the figure for those who could last more than a month was one-fifth. Only one-quarter of both genders stated that their income covers their living costs.

Concerning the knowledge and usage of financial services, participants were asked questions about popular products such as digital payments, saving and current accounts, insurance, mobile money, and so forth. Instead of multiple choices, they were given five points Likert scale to indicate their level of knowledge and usage. More than 80% of both male and female employees were using saving accounts and current accounts frequently. Still, women showed a better understanding and usage of the current account. In addition, around 90% of both groups saved during the past twelve months, and more than half of them used a bank account for this purpose. Other savings methods, such as saving clubs, were also popular, with 39% of men and women.

Digital payments, such as sending and receiving through the bank account and mobile money, were more common among female employees, with 14% of users opposite to 9% of men. Yet, men used bank accounts more than women to transfer money in general. During the past twelve months, a comparable proportion of men and women sent and received the money. Male respondents preferred to send money often through the bank, and the favoured method of receiving money among females was the bank account. Furthermore, a larger group of men adopted mobile money services, such as M-Birr and CBE-Birr.

Male respondents used microfinance loans and mortgages more than females regarding borrowing products. On high-risk investments, like the stock market and cryptocurrencies, a bigger group of women knew about the stock market and were willing to buy shares. But, twice more men than women were enthusiastic about cryptocurrencies and purchasing them.

Figure 5.18 *Comparing the account ownership among the male and female employees. Question: Do you have an account in a private-owned bank or a state-owned bank?*



Buying insurance as a buffer for financially hard days is one of the characteristics of provident people; the data showed more female employees purchased insurance, especially health insurance. Plus, female users of life insurance were more than men. Though men were less interested in insurance, they were more prepared for their retirement in terms of planning and saving for the old ages. Only 13% of men did not have any financial retirement plan; the figure for women was 22%. Female employees who calculated the compound interest correctly were twice as much as males. Men grasped the inflation concept more profoundly than women. Concerning account ownership, all females in the employed group had a bank account; 39% in the state owned-banks, 8% in the private ones, and 53% in both. Around 2% of men were accountless (Figure 5.18).

In short, more female employees knew about saving and current accounts, instalments, weather insurance, mortgage and CBE-Birr. Male participants were better in digital payments and mobile money, life insurance, microfinance loans, and M-Birr. As for the usage, the only services with more female users were digital payment, life insurance, and current account; the proportion of female and male users of CBE-Birr was equal. Although more female employees thought about their future and purchased insurance, the proportion of men with a financial plan for their old age was more significant.

Parcia and Estimo (2017) surveyed 96 employees from JBLFM university to explore factors that influence financial well-being. Their results revealed that demographic characteristics, including gender, income and job position, might affect their financial wellness. Among employees between 34 to 47 years old, men were more financially literate than their female matches. Nevertheless, women demonstrated better financial behaviour in the same age group.

In another study, Andriani and Nugraha (2018) maintained that the financial behaviour of the male and female employees is almost similar. They used a questionnaire to collect data from 60 employees of a university in Indonesia. There is no significant gender difference in terms of money-sending patterns.

(B) Trust questions

Trust has different meanings and definitions due to its complicated nature. In this survey, the respondents were asked about their perception of trust and what makes a financial organisation trustworthy. Safety of the money, organisation's reliability, and easy access to the money were the most favoured responses amongst employed females. Men also chose the safety of the money and reliability of the organisation, but they preferred data protection over easy access to their money.

The percentage of female employees who completely trusted their bank, the financial advisors and banks from other regions were more than men; however, they did not trust the banking system as much as their male counterparts. More than 90% of women were ready to recommend their banks to their family and friends. At the same time, a larger group of men trusted financial services, including e-banking, ATMs, and mobile money, compared to women.

Even though employed women had more faith in bank officers compared to men, they had less self-confidence. Only 55% of females believed they were trustworthy in the eyes of the financial officers; the corresponding percentage for men was 59. The majority of both genders thought officers do not trust people from poor or low-income groups.

Based on the data, the bank's ownership was more important for women than men. Among women, 43% only trusted the state-owned banks, 51% trusted both private and state-owned banks, and just 4% chose only private banks. The relevant figures for male employees were similar; 38% state-owned banks, 4% private ones, and 58% private and state-owned banks.

The outcome of the trust survey showed that women generally found the finance section trustworthy, while men had some doubts about it.

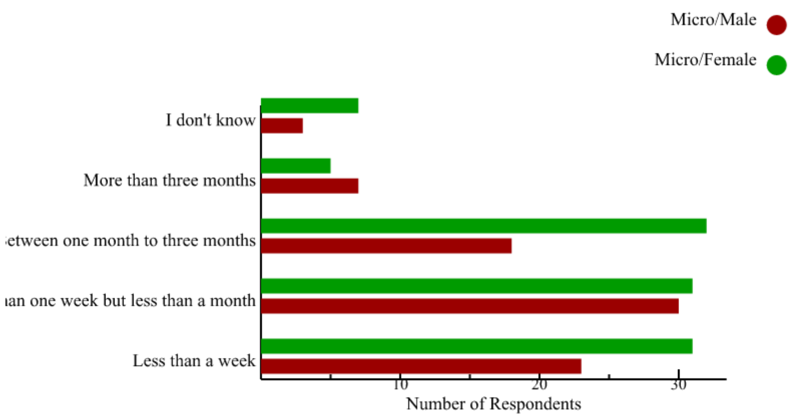
Micro-Enterprises and Gender

In the micro-enterprise category, almost half of the respondents were in the 20-29 age group, and female participants outnumbered men. Most of the participants were from rural, married and had a high school diploma. The micro-enterprise category was composed of low earners; the most crowded income group was 1,000-5,000Birr.

(A) Financial literacy questions

In micro-enterprises, 86% of men had a regular income which was 9 points more than women in the same field. Around half of both groups planned their expenses. Interestingly, women earned more than men; almost 50% of them had a monthly salary between 5,000 to 20,000Birr. The percentage of male owners of micro-enterprises at the bottom and top of the income quantiles was more than women; 34% made less than 1,000Birr, and 1% earned more than 20,000Birr. Only 14% of females had an income of less than 1,000Birr. One-third of women and one-quarter of men stated that their earnings could cover their living expenses; this statement revealed a low level of financial resilience in this job category. Around 30% of both men and women could not endure a week without any earnings. The proportion of men with the highest level of resilience (more than three months without any income) was almost two times more than women. About 60% of men and women had enough savings to cover their living expenses from one month to three months in case of losing income (Figure 5.19).

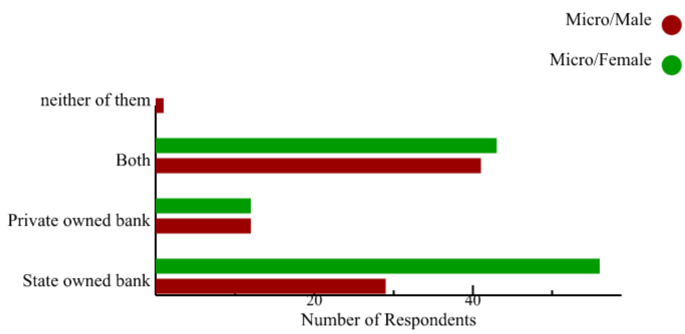
Figure 5.19 *Comparing the level of financial resilience amongst the male and female micro-enterprises. Question: If you lose your income, how long your assets or saving would last to meet your living expenses?*



On knowledge and usage of the services and products, male and female owners of the micro-businesses had different positions. A more significant number of men knew about bank accounts, such as saving and current, but the users of saving accounts among females were slightly more than among men. More women saved money during the past year, mainly through the bank or saving clubs. Interestingly, all women in this group had a bank account; half of them only favoured the state-owned banks, 11% private ones and 39% both. 1% of male micro-business owners did not have a bank account, half of them visited both private and state-owned banks, and one-third had an account in private ones (Figure 5.20).

Digital payment as one of the essential financial services was also considered in this research. The data revealed that more female entrepreneurs knew about this service; the number of those who adopted it was twice that of men. Although more women utilised digital payment, a bigger group of male micro-business owners transferred money, including sending and receiving money, during the past twelve months. Plus, fewer women used their bank accounts to send and save money throughout the past year; women relied more on banks in receiving money. Mobile money as another means of financial transactions was better known and adopted amongst male respondents in this group; this also applied to the knowledge and usage of the M-Birr and CBE-Birr.

Figure 5.20 *Comparing the account ownership among the male and female micro-enterprises. Question: Do you have an account in a private-owned bank or a state-owned bank?*



It appeared that men had better access to lending products, like micro-loans and mortgages. Though both genders were similarly informed about lending products, the number of male users was higher. Noteworthy, credit cards are not prevalent products in Ethiopia; however, fewer men knew more about them as compared to women. Concerning insurance, similar proportions of males and females in the micro-business group purchased health insurance and life insurance, yet, the sum of female policyholders, in general, was higher. Interestingly, there was no knowledge gap for life insurance between men and women, but the percentage of the male policyholders was 5 points more than women.

Retirement planning is a way to secure old age financially; in this group, more women favoured saving for retirement, but a larger sum of men had a financial plan for their retirement. Also, men in the micro-enterprise group understood the concepts of inflation and interest compound better than their female counterparts. Men had a higher level of numeracy too.

On novel and risky products, including cryptocurrencies and the stock market, 4% of females knew about crypto, and 12% were willing to purchase it; the figure for men was lower. More men knew about the stock market opening and were prepared to invest.

By looking at the data, it seemed that the saving account was the only service with more female users among micro-businesses. Women were more knowledgeable about digital payment and credit cards. Both genders were similarly informed about micro-finance loans, mortgages, and life insurance services.

(B) Trust questions

The majority of the previous work on women and financial services demonstrated that women are more cautious and risk-averse. Yet, this data set illustrated that women trust the finance industry more than men. Having faith in the bank, banking system, financial advisors and banks from other regions was more prevalent among female owners of the micro-businesses than their male counterparts. Plus, women in this category were motivated to recommend their bank to friends and family. Half of the women trusted ATMs; the matched figure for men was 43. Nevertheless, female respondents in this job category had some doubts about mobile money; the proportion of men who trusted M-money was bigger.

The bank's ownership (state-owned/private) mattered for women more than men; more than half of them only trusted state-owned banks, and 42% trusted both. The percentage of men who trusted both private and public banks was 46; a similar figure only accepted the state-owned banks.

Impressively, the sum of the women who believed they were trustworthy was more than men. Loyalty and understanding the banking terms and concepts were the main reasons behind this confidence. As for men, the order was reversed, first, understanding the banking terms, then loyalty. Those from low-income groups or less knowledgeable assumed the bank officers did not trust them.

Small Enterprises and Gender

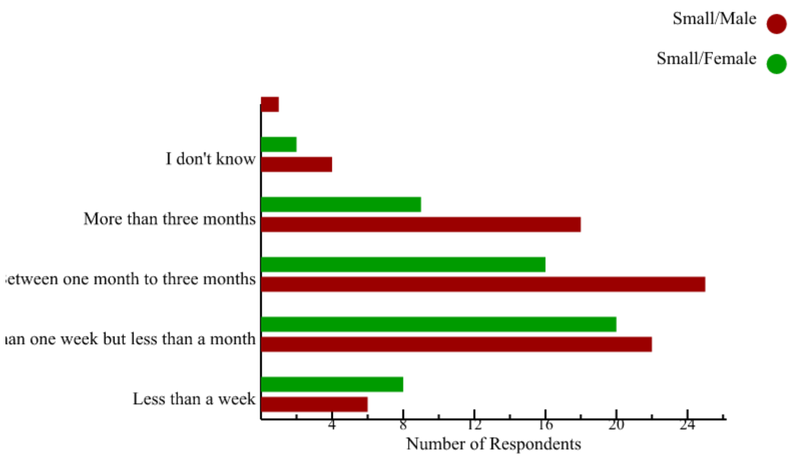
The summary of the socio-demographic characteristics of respondents in this group are as follows: the majority were married, from rural areas, and held an undergraduate degree. The number of male business owners in this job category was higher than females. Small business owners made more than other job categories; nearly 40% earned between 10,000 to 20,000Birr monthly.

(A) Financial literacy questions

In terms of income, male owners of the small enterprises had a better stand than women. A larger group of men had a steady income, kept track of their expenditures, and could cover their living expenses without any difficulty. Examining the income groups between males and females in the small enterprise group declared that women generally gained more than men. Even though 16% of men, in contrast to 11% of women, made more than 20,000Birr per month, nearly half of the females earned between 10,001 to 20,000. The matched figure for men was 34%. At the bottom of the income quantiles, 20% of men and 13% of women had less than 5,000Birr.

Women had a better income level, but men showed a higher level of financial resilience. Half of the women running small businesses did not have enough savings to survive a month without income; 57% of men could endure more than one month. Only 37% of men couldn't last a month without any earnings (Figure 5.21).

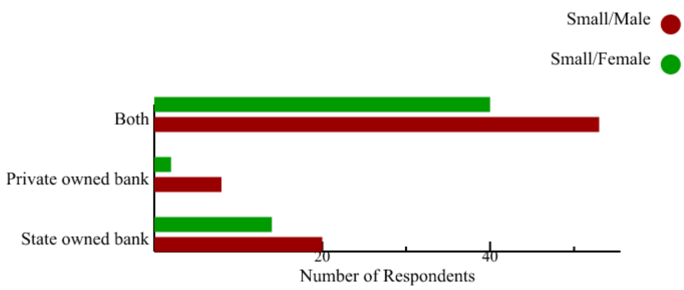
Figure 5.21 *Comparing the level of financial resilience amongst the male and female small enterprises. Question: If you lose your income, how long your assets or saving would last to meet your living expenses?*



Female and male owners of small businesses had a wide gap in knowledge and usage of the financial services and products; more men knew about and utilised financial services than women. Digital payments, mobile money, life insurance, credit card, mortgage, and current account were services and products with a higher number of male users; they also showed a higher level of knowledge. The widest gender gap was observed for mobile money and digital payment to be 14 and 11 points, respectively. Even though fewer female participants in this job group knew and used mobile money, an equal proportion of both genders used CBE-Birr. Furthermore, 93% of men and 87% of women employed at least one of the money transfer services; more women visited the bank to transfer money. In the last twelve months, the gender differences among money senders and receivers were negligible; more than 80% of small business owners utilised these services. Noteworthy, more men transferred money via their accounts during the last year.

Only saving accounts and microfinance loans were more common with women; they perceived these services better than men. On favoured saving methods, 82 and 76% of women and men, in turn, chose the bank account, and one-tenth of both genders kept money in the form of cash. Informal saving methods, such as saving clubs, were preferred by a bigger percentage of women in contrast to their male counterparts. Also, 94% of women saved money in the past twelve months, which was 13 points more than men; more men utilised their bank services for this purpose.

Figure 5.22 *Comparing the account ownership among the male and female small enterprises. Question: Do you have an account in a private-owned bank or a state-owned bank?*



It should be mentioned that everyone in this group had a bank account; 65% of men and 71 of women used both state-owned and private banks. Just one-quarter of respondents had an account only in the state-owned bank. Choosing private banks as the only providers of financial services was the least popular choice with 4% females and 10% males (Figure 5.22).

Purchasing cryptocurrencies and stocks are other ways of saving money common in most countries. The difference between male and female respondents who were ready to save their money as cryptocurrencies or stocks was significant; more women were cautious about their money. The stock market was better known than cryptocurrencies among Ethiopians; 55% of men and 51% of women were informed about opening the stock market in Ethiopia. For Cryptocurrency, only 5% of women and 7% of men heard about it. Although more women in this group were risk-averse, fewer of them bought insurance as opposed to men. Concerning the type of insurance, women's number of purchased cars and health insurance was higher than men's. The case of car insurance exhibits an improvement in the financial status of women in this country, where the majority are low earners.

Both genders had similar purposes for saving, e.g. children's education, saving for emergencies and retirement. Saving for retirement was supported by an equal number of men and women. Yet, 36% of women did not have any financial plan for their old age; the matched figure for men was 27%.

The notable difference between retirement planning for men and women was linked to their assets; half of the male owners of the small businesses relied on their financial and non-financial assets, and that of women was 40%. Around 12% of male and female participants had a private pension.

The proportion of women in the small-enterprise group who answered the question on the interest compound (numeracy) was 1 point more than that of men. Male owners of small businesses, on the other hand, had a better understanding of inflation and its consequences.

(B) Trust questions

The interviewees in this group were asked about their assumption of trust and why they trust the banking sector. Like the other groups, the most preferred answers were the safety of money and the organisation's reliability and security of the transaction; the gender gap was negligible.

In this subcategory, fewer female participants completely trusted the banking section, contrasting their male peers. The most notable difference was linked to the trust in the banking system that the female percentage was 17 points less than that of men. None of the male respondents distrusted the banking system and financial advisors, whilst the corresponding numbers for women were 2 and 9%, in turn. Plus, more men found ATMs and mobile money reliable; the proportion of women was 14% less.

The reason behind the differences among males and females might be related to their opinions on the quality of the provided information and services, since a smaller sum of women found them of high quality. Just 3% of the men considered the services are of poor quality; for women, it was 18%. Not surprisingly, all of the male business owners were happy to introduce their banks to their family and friends; that of women was 95%.

Concerning the state-owned and private banks, half of the women trusted both. The irony is the proportion of women with an account in private and state-owned banks was 70%. Similarly, the percentage of men who trusted private and state-owned banks was less than those who had an account in both. Among women, 46% trusted only state-owned banks; that of men was 39%. Fewer women assumed the bank officers trusted them; the figure for men was 11 pints more. Understanding the technical terms, having a profitable business, and a good amount of money in their account boosted the males' self-confidence. For women, on the other hand, having a successful business and loyalty were accounted for being trustworthy. Both genders believed that a lack of financial knowledge and money would decrease their level of trustworthiness.

5.5.2 Location and Gender

A group of researchers in India analysed the National Centre for the Financial Education's (NCFE) report on financial literacy and financial inclusion in India; the population under study was classified by occupation, geographical area and gender.

They reasoned that individuals from urban areas had a higher score in financial literacy and financial inclusion than rural residents. Also, men were more financially literate and included compared to women. Around one-quarter of urban residents were financial literate; the corresponding figure for the rural ones was 15%. Regarding gender, men were 1.5 times more financially literate than women (Dwivedi et al., 2015). Based on their study, one could conclude that women from rural and urban areas have a lower level of financial literacy than men. Among men, rural residents would be less financially literate than urban ones.

Urban and Gender

In Jimma city, running a small business was the most favoured occupation; being an employee was the second, and running a micro-business was the least favoured one. The most populated age groups were 20-29 and 30-39 years old, with 41 and 42% of respondents, respectively. One-third of the respondents held an undergraduate degree, and one-third had a high school diploma. The number of urban women was a bit higher than men. The "5,000-10,000Birr" income group with 30% of the participants was the most crowded.

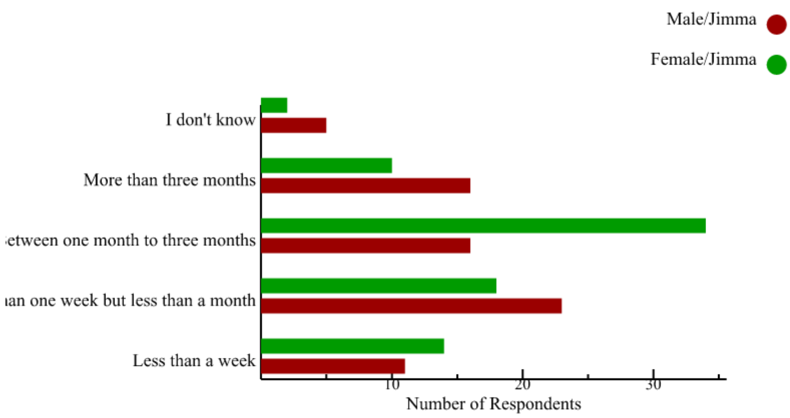
(A) Financial literacy questions

In this study, the percentage of the female residents of the Jimma city with a regular income was 94%; that of urban men was 92%. In the income quantiles, on average, women earned more than men. Around 40% of male respondents made less than 5,000, and the corresponding figure for men was 22%. The proportion of women in the 10,000-20,000 income group was 3 points more than their counterparts. Likewise, twice more women received between 5,001 to 10,000Birr. Yet, men relatively had a bigger number than women in the income quantile of >20,000Birr.

It appeared that women managed their income better than men; around half of the females in this group could make ends meet; men were 3 points less.

Additionally, female residents of Jimma city exhibited better financial resilience than men; twice more women could have survived between one to three months without any earnings. Like the income quantiles, fewer women were at the top of the financial resilience hierarchy; only 13% of female respondents were able to cover living expenses for more than three months without any income, which was almost half of the figure of men. The proportions of females and males with the lowest level of financial resilience who did not have enough assets to endure a month without income were 41 and 47%, respectively (Figure 5.23).

Figure 5.23 *Comparing the level of financial resilience amongst the male and female respondents from the urban areas (Jimma). Question: If you lose your income, how long your assets or saving would last to meet your living expenses?*



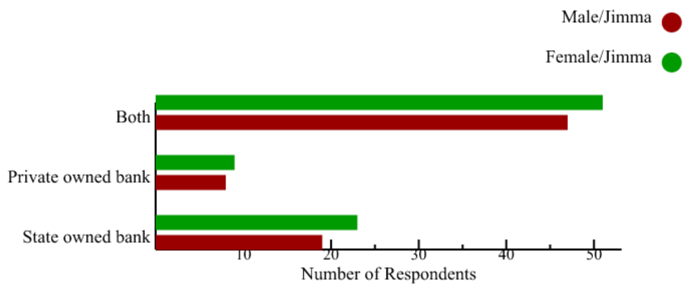
In managing personal finance and saving orientation, although around 55% of the urban residents kept track of their expenditures, fewer men preferred to save for emergencies and retirement. Women emphasised saving for retirement, yet, the number of those with financial planning for old age was equal among men and women. Female respondents with a pension were more than those males.

Formal and informal saving methods, like bank accounts and saving clubs, were favoured by more women than men in Jimma city. Women were also better in numeracy skills; 9% of the female residents of urban areas correctly answered the question on interest compound, which was 3 points more than their male peers. However, the concept of inflation and its consequences were apprehended better with more men than women.

Interestingly, among male and female residents of Jimma city, a bigger group of women knew about and used financial services and products. The sum of men who knew about saving accounts, mobile money, digital payments, M-Birr, mortgage, life insurance and weather insurance was less than women; only microfinance loans and CBE-Birr had a higher proportion of well-informed men. Mobile money and M-birr had the biggest gender differences in terms of knowledge, but men defeated women in the number of users for these services. Even though more males knew about microfinance loans and CBE-Birr, the proportion of female users was greater. Few men utilised services like saving and current accounts, digital payments, mortgages, and life insurance.

It should be noted that the sum of the policyholders in this group of respondents was not more than 25%. Health insurance was the most popular insurance amongst participants, with 42% male and 40% female policyholders; the second most popular one was life insurance which more women purchased than men. All of the respondents from urban had an account, and more than 60% preferred to use services from both state-owned and private banks (Figure 5.24).

***Figure 5.24** Comparing the account ownership among the male and female respondents from the urban areas (Jimma). Question: Do you have an account in a private-owned bank or a state-owned bank?*



The sum of the male residents of Jimma city, who visited banks to save, send or receive money during the past year, was more than their female counterparts. As stated before, more women adopted banking services such as saving accounts and digital payments, but fewer of them saved money during the past twelve months. Women utilised money sending services more than receiving ones in the same period of time.

Generally, female respondents in this group were more risk-averse; a slightly bigger group of women understood cryptocurrencies and the stock market, but more men were prepared to invest in digital currencies.

(B) Trust questions

Assessing trust in the banking sector among urban residents of the sample revealed that though more men gave the highest rate of trustworthiness to the banking system, fewer completely trusted their banks, financial advisors and banks from other regions. Furthermore, trusting financial services such as electronic banking, ATMs, and mobile money was more common among females than males. However, around 40% of men were completely satisfied with the quality of banking services which was 10 points more than that of women. Also, well-informed male participants were seen more compared to women. Hence, it was no surprise that the proportion of men willing to recommend their banks to their friends and family was more than women.

In the same context, trusting state-owned and private banks were assessed among male and female residents of Jimma city; the majority of both genders did not mind bank ownership types. Men who only trusted the state-owned banks were 10% more than women. And, 3% of the respondents in this group used the banking services just from private banks.

One-third of the female participants found their bank officers trustworthy. Still, more than half of them assumed the bank officers trusted them; the proportion of men was 2% more. For men, understanding the banking concepts and loyalty were the most common reasons for being trustworthy. For women, working for the government and being a good borrower were also mentioned. Those who did not consider the bank officers to trust them were from low-income categories.

Rural and Gender

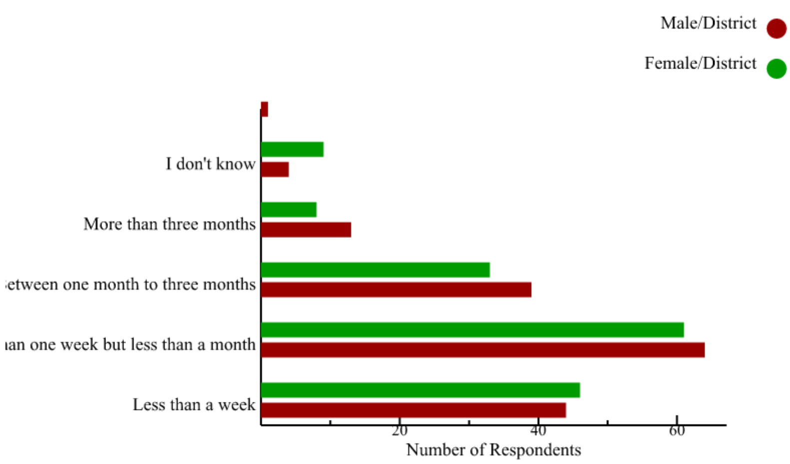
Compared to the urban residents, fewer people from rural areas had a steady income and earned less; hence, they relatively had a lower level of financial resilience.

The majority of participants from the districts were running a micro-enterprise. The age profile of the rural areas was comparable to the urban; 42 and 39% of individuals were in the "20-29 years old" and "30-39 years old" age groups, respectively. The proportion of men was 2% more than women. Most of the respondents from rural were married and had a high school diploma. The "5,001-10,000Birr" and "10,001-15,000 Birr" income quantiles with 31% and 27% of the participants were the most populated income groups.

(A) Financial literacy questions

Considering the gender factor among rural residents, having a regular income, which suffices the living cost and a good level of financial resilience, was detected more amongst men than women. The difference between men and women who made money regularly (business owners or employees) was only three points; 86% men and 83% women. Also, more men kept track of their expenditures; therefore, fewer encountered financial difficulties to cover living expenses. Half of the males and females from the districts had a monthly income below 5,000Birr, and less than one-tenth earned more than 15,000Birr.

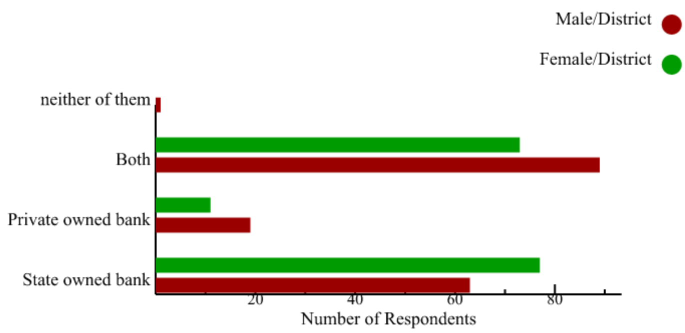
Figure 5.25 *Comparing the level of financial resilience amongst the male and female respondents from the rural areas (district). Question: If you lose your income, how long your assets or saving would last to meet your living expenses?*



In the income quantile of 5,000-15,000 Birr, the difference in the proportion of men and women was 2 points; men with 40% and women with 42%. Even though the gender disparity in the income quantiles was insignificant, males and females from rural areas exhibited different levels of financial resilience. More than 60% of women were placed at the bottom of the scale, where the individual did not have enough savings to survive a month without any earnings; it was two points more than men. One-quarter of male respondents and one-fifth of the females could have endured between one month to three months. Only 8% of men had enough assets to cover living costs for more than three months; the matching percentage for women was 5%. Overall, male residents of the districts had a better level of financial resilience. One person did not answer the question (Figure 5.25).

All of the women in this group had a bank account, whilst 2% of men were accountless. Most women were customers of the state-owned banks; more men preferred to have a bank account in both private and state-owned banks (Figure 5.26).

***Figure 5.26** Comparing the account ownership among the male and female respondents from the rural areas (district). Question: Do you have an account in a private-owned bank or a state-owned bank?*



On personal finance and saving orientation, more men prioritised saving for emergencies and retirement than women; the prevalent method of saving was the bank account. Fewer men saved money as cash or in saving clubs as opposed to their female peers. Still, the gender gap in the preferred ways of savings, such as cash, bank and saving clubs, was negligible. Planning for retirement was more prevalent among men than women; nearly 70% of men had a pension or savings. Around 40% of women did not have any financial plan for old age; the corresponding percentage for men was 28.

As for inflation and numeracy, more women gave the correct answer to the question on interest compound, but inflation and its financial importance were well grasped among more men.

A quick look at the data on the knowledge and usage of financial services and products demonstrates a higher percentage of male users among respondents; more men also knew about these services contrasting women. Differences between male and female users of mobile money, microfinance loans, M-Birr, and CBE-Birr were more than 10 points. Mobile money and CBE-Birr had the widest gap between men and women in terms of usage and knowledge. The only service with more female users than males was weather insurance. Furthermore, an equal sum of female and male respondents utilised saving accounts; still, more women saved money during the last twelve months than men. The favoured method of saving for both genders was the bank account. Risky investments, like the stock market or digital currencies, risky investments were also popular amongst men; the percentage of female respondents who knew about these services was smaller than their male peers. Furthermore, the number of men who transferred money was relatively greater; still more women used their bank accounts for this purpose. Similarly, the male senders and receivers had a larger sum in contrast to women; the differences were 16 points for sending and 5 points for receiving.

On insurance, the proportion of female participants who knew about life insurance was 10 points less than men, but the percentage of female policyholders was 2 points more than their male counterparts. Almost 90% of women purchased health insurance; life insurance and car insurance were bought by 8 and 5% of female respondents.

(B) Trust questions

In assessing the trust in the banking sector, e.g. banks, banking system, financial officers and banks from other regions, amongst female and male participants from districts, more women exhibited the highest level of trust than their male counterparts. The most significant difference was related to trusting financial officers, which the figure for men was 7% less than for women. Interestingly, trust in financial services, including electronic banking, ATMs, and mobile money, was more common among men. When participants were asked how well they were informed about the services and products, men were more than women. Nevertheless, fewer men thought the banking services were of excellent quality; women were 9% more.

More women trusted the bank officers, but fewer assumed that bank officers trusted them. The majority of people who exhibited a low level of self-confidence were from poor and low-income categories.

Most of the men in this group found themselves trustworthy because they could have understood the financial concepts and had a successful business. Women gave more weight to loyalty than a profitable business. The type of bank mattered more for women than men. More than half of women trusted only the services from the state-owned banks; the same proportion of men trusted both private and state-owned banks. More than 90% of respondents were willing to recommend their bank to their friends and family. Concerning the reasons people trust the banking sector, answers like the safety of money and reliability of the organisation were popular with both male and female respondents.

5.5.3 Job and Location

Employees and Location

Many respondents from the employed category held an undergraduate degree. Employees from rural and urban had a similar proportion of married ones. The number of female participants in the urban areas was more than men. On the contrary, the number of men in rural was higher. More than 40% of people made between 5,000 to 10,000Birr per month; the proportion of Jimma residents in this income group was 10 points more than that of the districts.

(A) Financial literacy questions

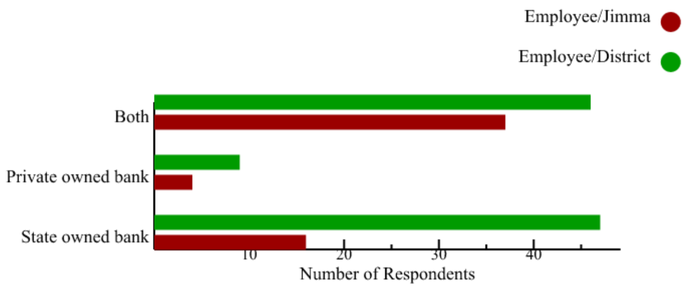
All of the employees from the urban area had a regular income; more than 60% of them had income between 5,000-15,000Birr. On the other hand, 97% of rural employees had a steady salary, and around half of them earned less than 5,000Birr per month. On average, respondents from districts exhibited a weaker financial resilience; more than three-quarters of them could not last a month without any income. In urban areas, 43% of employed individuals could have survived more than a month;

fewer rural residents could make ends meet.

The proportion of the rural users for financial services, like mobile money, M-birr and CBE-Birr, was more than urban ones. The lack of access to financial services in rural areas could have led people to utilise mobile money services as substitutes for formal banking services. The lending products, such as mortgages, microfinance loans, and credit cards, were also more prevalent amongst district people. Nonetheless, there were more knowledgeable employees from urban rather than rural areas.

A larger group of employees from rural were willing to purchase digital currencies, while more urban employees tended to invest in the stock market. In general, using money transfer services was more prevalent with Jimma residents. Plus, a more considerable number of them saved, sent and received money during the past twelve months compared to their rural counterparts. 3% more people from rural than urban bought insurance; more than 90% of them purchased health insurance. The most favoured type of insurance policy in urban was life insurance. All of the employees from Jimma city had an account; 2% of rural were accountless (Figure 5.27).

Figure 5.27 *Comparing the account ownership among the rural (district) and urban (Jimma) employees. Question: Do you have an account in a private-owned bank or a state-owned bank?*



In short, a higher number of employees from urban had a better level of income and financial resilience. And, fewer people from rural used saving and money transfer services, particularly during the past twelve months.

(B) Trust questions

Regarding trust, a comparable figure of employed individuals from rural and urban completely trusted their financial advisors, yet more respondents from rural trusted banks from other regions. As for their assumption of being trustworthy, more individuals from rural showed confidence. This might be related to the fact that people from urban have a more realistic view due to their level of knowledge of the financial system.

The proportion of those who believed in their banks was somewhat comparable for rural and urban. More than 90% of the respondents were happy to promote their banks, yet only one-quarter were satisfied with the quality of the provided information. Also, only one-third of the interviewees in this group gave the highest rank to the quality of the services. Even though more rural residents used mobile money services, fewer found them trustworthy. Participants who trusted electronic banking and ATMs were numerous in the urban areas.

Considering the facts mentioned above, it is fair to say the lack of money and access to financial services in the rural areas could be the reason behind the lower number of people who knew about and adopted financial services and products. In trusting the various parts of the banking sector, no pattern was observed.

Microenterprises and Location

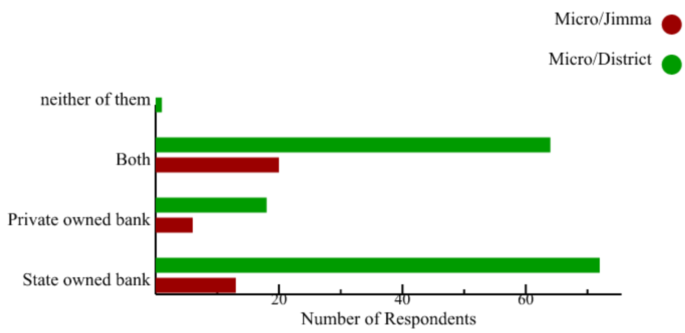
The majority of the respondents in the micro-enterprise category were aged between 20 and 39, had a high school diploma, and the number of women was more than men. In Jimma city, 26% of individuals did not earn more than 1,000Birr; it was two points more than those with an income between 5,000-10,000Birr. In the districts, the income quantile of "1,001-5,000Birr" with 32% of respondents was the most crowded one, and people with an income between 5,000 to 10,000 birr with 23% were next.

(A) Financial literacy questions

All of the people from the urban had a bank account; 1% of rural residents had not a bank account (Figure 5.28).

A comparable proportion of individuals from rural and urban had a steady income. At the bottom of the income quintile, 60% of the participants from districts made less than 5,000Birr; it was 4 points more than that of the urban ones. Around one-tenth of the Jimma city residents in this category had an income of more than 20,000Birr; the corresponding figure for the rural areas was 4%. In the income group of 5,001-15,000Birr, rural people had a larger share than the urban ones. The income level of business owners from rural and urban was somewhat similar.

Figure 5.28 *Comparing the account ownership among the rural (district) and urban (Jimma) micro-enterprises. Question: Do you have an account in a private-owned bank or a state-owned bank?*



Nevertheless, more micro business owners from the districts could make ends meet, kept track of their expenses, and saved for emergencies and retirement. The proportion of people without any financial retirement plan was similar for micro-enterprises from rural and urban areas. On the other hand, more than half of the participants from urban had enough assets to survive more than a month without any income; that of rural was less than one-third.

Investing in digital currencies and the stock market was favoured by more district residents than their urban counterparts. Plus, they scored better than urban residents in numeracy skills; both groups had a good understanding of inflation and its financial outcomes. Even though more individuals from the rural areas exhibited better personal finance and saving orientation, the number of urban users for digital payments, mobile money, M-Birr, microfinance loans, mortgage, and current accounts was proportionately higher. Utilising services, such as saving accounts, life insurance, and CBE-Birr, were more common amongst rural people of the micro-enterprise category. Concerning the knowledge of financial services, the proportion of urban residents was bigger than rural ones for almost all of the services, except saving accounts and M-Birr. There were more savers, senders, and receivers from urban than rural during the last twelve months.

(B) Trust questions

Regarding trust, fewer respondents from Jimma city than the district ones found the banking sector, e.g., banks (local and from other regions), financial advisors and banking system, trustworthy. Furthermore, a smaller proportion of them trusted electronic banking, ATMs, and mobile money. More micro-business owners from the rural areas believed the bank officers trusted them, and the provided information and services were of excellent quality.

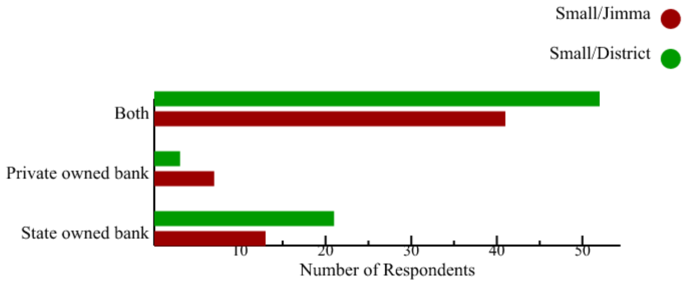
Small Enterprises and Location

The majority of the respondents of the small enterprise category were in the 30-39 age group, married, with a high school diploma. There was no gender difference in the number of small business owners from the rural and urban areas. In the urban areas, 22% had an income between 10,000 to 15,000Birr, and 45% made more than 15,000Birr per month. In the rural, 15% made between 10,000 to 15,000Birr, and one-quarter made more than 15,000Birr.

(A) Financial literacy questions

Regardless of their location, everyone in this category had a bank account (Figure 5.29). On average, urban residents earned more contrasting respondents from the districts; half of them were in the 10,001-20,000Birr income group. The proportion of those with an income of more than 20,000Birr in Jimma city was twice that in the districts. Only 13% of business owners from urban made less than 5,000Birr per month; the matched figure for the rural was 27%. Around three-quarters of small business owners from Jimma city could make ends meet, which was two times more than those of the districts. Plus, more people from urban had an expense log, comprehended inflation, and saved for emergencies and retirement; they exhibited a good level of financial resilience. The number of participants without any financial retirement plan was proportionately bigger in rural. A smaller group of rural business owners utilised saving accounts, mobile money and digital payments; still, 2% more transferred money than their urban peers. During the last twelve months, the proportion of savers, senders and received from the rural areas was also higher than small business owners from Jimma city.

Figure 5.29 *Comparing the account ownership among the rural (district) and urban (Jimma) small enterprises. Question: Do you have an account in a private-owned bank or a state-owned bank?*



Investing in high-risk products, like digital currencies and stocks, was more popular with district people than urban ones. Regarding the other financial services, e.g., microfinance loans, mortgages, M-Birr, CBE-Birr, credit cards, and current accounts, the proportion of users was larger in rural compared to urban. In addition, nearly 60% of the district residents purchased insurance; the matched figure for urban was 28%. Nonetheless, other than life insurance, all surveyed financial services were better known amongst a bigger group of individuals from urban than rural. In comparison, more small enterprise owners from districts gave the highest rank to the quality of the provided information.

(B) Trust questions

Though more urban residents used mobile money, fewer trusted this financial product. On the contrary, electronic banking and ATMs were trusted by more business owners from urban than rural; almost half of them voted for the high quality of the services. A bigger number of rural people favoured financial advisors and banks from other regions, whilst fewer of them found their banks and the banking system trustworthy. Furthermore, those who believed the bank officers trusted them were numerous in the small businesses from the districts.

The majority of the participants from the small enterprise category trusted both state-owned and private banks.

5.5.4 Job Category, Location and Gender

In this part, the impact of location, gender and job category would be evaluated to understand how males and females from different job categories and different locations answer the questions on knowledge and usage of financial services. Since this part investigates the collective effects of categories, the socio-demographic characteristics of individuals in each group will be reviewed.

Employees, Urban and Gender

More than half of the employed individuals from the urban area were female. Around 80% of female employees were married, but less than half were the head of the family. The most populated age group for women was 30-39, and more than 60% of women had an undergraduate degree. On average, the male employees from the urban area were younger than the women; half of them were aged between 20 and 29. Around 60% were married and head of the family. Similar to females, most of them held an undergraduate degree.

(A) Financial literacy questions

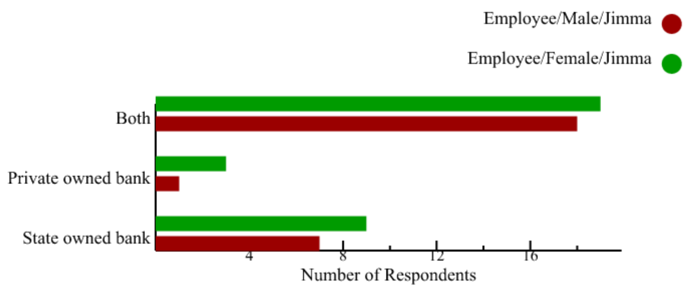
Considering employees from urban areas, subjects on personal finance, like regular income, saving orientation, keeping track of expenditure, and so forth, were examined between male and female respondents. All employed people from urban areas, regardless of their gender, had a regular income. Most of the employed women (64%) were in the middle of the income quantiles with a salary between 5,001 to 10,000Birr. This quantile was the most populated one for men, too, with 40%. One-quarter of females made less than 5,000Birr per month, and less than one-tenth earned between 10,000 to 15,000. The proportion of men in the two income groups of "10,001-15,000Birr" and "more than 20,000Birr" was twice as many as their female counterparts. Still, the percentage of male employees with salaries less than 5,000Birr was 11 points more than that of women. The income group of "15,000-20,000Birr" was empty. With this level of income, only 44% of men and 33% of women were able to cover their living costs without difficulty. Strikingly, women exhibited a better level of financial resilience. Half of the females in this group could have survived without any earnings, between one month to three months; the corresponding figure for men was 16%.

Furthermore, more than 60% of men did not have enough savings to last a month in case of losing income. Saving for emergencies and old ages was more prevalent among women than men. Plus, a higher number of women were willing to save money in the form of cryptocurrencies or stock. It should be noticed that fewer women knew about digital currencies in comparison to men.

More than half of the population in this group had an expense log; the percentage of men was 2 points less than that of women. Moreover, none of the male employees answered the question on numeracy and interest compound correctly; the figure for women was 11%. Inflation was also better comprehended among women than men. Concerning retirement planning, more women had a pension, yet more men had financial and non-financial assets. Around 15 of the respondents did not have any financial plan for their old age.

On access to formal financial services, the majority of both genders had an account in both private and state-owned banks (Figure 5.30). More than 90% of participants utilising their saving account regularly or casually; women 3% were fewer than men. During the past twelve months, 92% of men save saved money which was 10% more than the figure for women; more males favoured banks for saving purposes than female respondents.

Figure 5.30 *Comparing the account ownership among male and female employees from the urban areas (Jimma). Question: Do you have an account in a private-owned bank or a state-owned bank?*



Still, using current accounts was more common among women. On average, the number of female users of financial services was more significant than men, but more men knew about financial products. Mobile money, digital payments, microfinance loans, life insurance, current account, and CBE-Birr had more female adopters, whilst using the saving account, credit cards, and M-birr was more prevalent with men. Only mobile money and digital payment had a more considerable percentage of well-informed females. Women performed better in terms of knowledge and usage of digital payments and mobile money; still, 8% more men than women transferred money during the last year. The proportion of men who used the bank for transferring money was 22% more than their female peers. During the past year, the percentage of male senders was smaller than females, but more men received money, contrasting women.

On insurance, the number of policyholders for men was bigger; life insurance was the most purchased one amongst both genders, followed by car and health insurance.

(B) Trust questions

Since female employees from urban areas had more financial service users, more women than men should have fully trusted the banking sector. The conclusion, as mentioned earlier, comes from this hypothesis that trusting the banking sector would increase the level of usage of financial services and products. As predicted, the percentage of women who believed in the various parts of the banking sector, including banks, financial officers, banking system and banks from other regions, was greater than their male peers. The largest disparity was linked to the trust in banks from other regions; the percentage of men was 20 points less. Both men and women trusted their banks to the level that more than 90 of them were willing to recommend them to others. About trusting the state-owned or private banks, the majority of people in this group trusted both, but no one chose "I trust only private banks". Trusting both private and state-owned banks was more prevalent with women.

Most male and female employees from Jimma city trusted their banks and the financial system because they knew their money was safe and that financial organisation was reliable. Security of the transaction and easy access to money were other answers stated by the respondents.

Surprisingly, trusting financial products, like ATMs, electronic banking, and mobile money, was not common among women compared to their male counterparts. Furthermore, a low level of self-confidence was more observed among women than men. 60% of men assumed the bank officer trusted them; the figure was 10 points more than that of women. Working for the government, understanding the technical terms, and having a good amount of money in their account, boosted women's confidence. Loyalty replaced "the good amount of money in the account" for men. On the other hand, difficulty in understanding the financial terms and lack of money were chosen by those who assumed the bank officers did not trust them.

Employees, Rural and Gender

Half of the employees in the districts were male, the age group of 20-29 was the most crowded one with half of the respondents, most of the individuals were married, and Islam was the dominant religion. Nearly 50% of the participants had an undergraduate degree, and the majority earned between 1,000 to 10,000Birr.

(A) Financial literacy questions

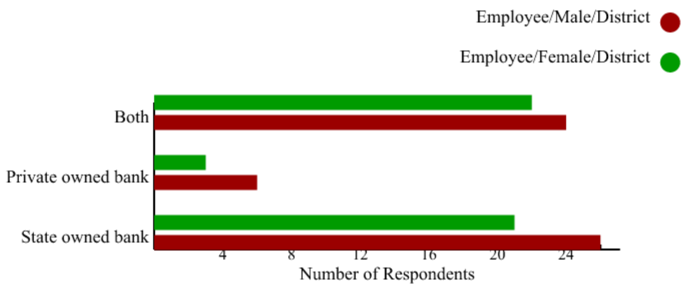
On average, female employees were younger than men; 63% of women were aged from 20 to 29. Single individuals were observed more amongst women than men.

All employed women had a steady salary; 96% of men earned regularly. Around half of the females placed at the income quantiles of 5,000 to 10,000Birr, a similar proportion of men made 1,000-5,000Birr per month. Nevertheless, the percentage of men with a wage from 10,001 to 15,000Birr was two times more than women. No one in this group made more than 15,000Birr per month. Less than one-fifth of both male and female participants were able to cover their living costs with their salaries. More than 80% of employed participants did not have enough assets to survive a month without any earnings. Only 4% of women showed a good level of financial resilience (more than three months without income); the matched figure for men was half of it.

Regarding the personal finance and saving orientation, more men had an expense log, prioritised saving for emergencies and retirement, and favoured saving money in banks. Overall, the percentage of women without any financial plan for their old ages was twice as much as men.

Also, inflation and its financial outcomes were comprehended by more male respondents than their female peers. However, the percentage of women with better numeracy skills was 9 points more than men. All of the women had a bank account; 4% of men were accountless (Figure 5.31).

__Figure 5.31__ Comparing the account ownership among male and female employees from the rural areas (district). Question: Do you have an account in a private-owned bank or a state-owned bank?



An overview of the data revealed that more men were knowledgeable about financial services and products. Saving/current accounts and mortgages were the only services more women knew about them than men. Additionally, more female participants adopted saving/current accounts and digital payments. Not only the sum of female savers, in general, was more than men, but also they saved more during the past twelve months. For sending and receiving money during the past year, women were more receivers than senders; the female money receivers were more than males. Men who sent money were 8 points were more than their female peers. Overall, a larger group of male employees from the rural areas utilised transferring services than women; using bank services was more popular amongst men than women. Though fewer women knew about insurance, the sum of female policyholders was more than men; all of them preferred to purchase health insurance. The majority of male policyholders bought health insurance; less than one-tenth acquired life or car insurance.

The proportions of men who knew about cryptocurrencies and the stock market and were prepared to invest in stocks or digital currencies were greater than those of women. Also, the number of male users for mobile money, credit card, microfinance loans, M-Birr, CBE-Birr, mortgages, and weather insurance was relatively more than their female counterparts.

(B) Trust questions

Regarding the meaning of trust and the logic behind it, both males and females in the employed group from rural areas preferred answers, like the safety of the money and reliability of the financial organisation. Women also highlighted the importance of easy access to their money; personal data protection was crucial for men.

More men assumed their banks and the banking system was trustworthy, while more women completely trusted the financial advisors and banks from other regions. Furthermore, the proportion of women who trusted banking services and products, such as electronic banking, mobile money and ATMs, were smaller than men. Ironically, fewer men than women were willing to recommend their banks to their families and friend. More women believed the banking services were of high quality, though a small number of them were well-informed about services and products compared to men.

Bank ownership, state-owned or private, was not that important for the majority of the male respondents; 60% of men trusted both. Just one-third of men only trusted the state-owned banks; the corresponding figure for women was 50%.

The difference between men and women who stated they were trustworthy was 1 point, women with 59% and men with 58%. These men and women mostly worked for the government and understood the technical terms. For those who thought the bank officers did not trust them, lack of money was the main explanation.

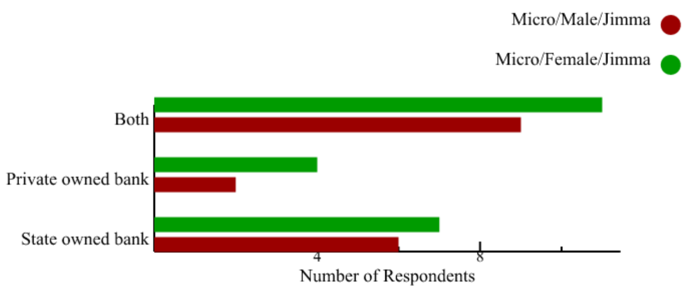
Micro Enterprises, Urban and Gender

More than half of the micro-enterprise owners from urban were females. The most populated age group was "20-29 years old". Comparable to employees from rural, the most populated age group for men was 20-29, too. The majority were married; the married women outnumbered the married men. Individuals with high school diplomas were observed more than others.

(A) Financial literacy questions

More than 80% of the micro-enterprise owners had a steady income; men were 1% more than women. On average, women earned more than men; three-quarters of men made less than 5,000Birr per month, and the relevant figure for women was 42%. Around half of the women in this group made between 5,000 to 15,000Birr; only 6% of men were in that income group. At the top of the income quantiles (<20,000Birr), almost twice more women than men had an income of more than 20,000Birr. More than one-third of female respondents stated their income is enough to cover their living expenses; only 14% of men earned enough to make ends meet. Also, most men did not have enough savings to last a month without any income; that of the women was one-third. In the middle of the financial resilience scale, half of the women could have survived a financial shock like losing their income between one to three months; the matched figure for men was one-third. Still, 18% of males in the micro-enterprise group could cover their expenses for more than three months through their financial or non-financial assets, compared to 10% of females. Overall, more women exhibited better financial resilience than men.

Figure 5.32 *Comparing the account ownership among male and female micro-enterprises from the urban areas (Jimma). Question: Do you have an account in a private-owned bank or a state-owned bank?*



On personal finance, all of the owners of the micro-enterprises, regardless of their gender, had a bank account (Figure 5.32). Half of the women kept track of their expenditures, and 4% more than men correctly calculated the interest compound. In saving orientation, more women prioritised saving for emergencies and retirement, and saving in the bank was the most favoured method of saving. Still, more male respondents better understood the concept of inflation than female ones. Even though saving for retirement was common among women, the proportion of females without any financial plan for their old age was almost ten points more than that of men. As for novel and risky methods of saving, e.g., cryptocurrencies and the stock market, fewer women were willing to take the risk. Strikingly, none of the male owners of the micro-business heard about digital currencies contrasting 14% of women.

A larger group of female business owners knew about financial services and products than their male peers; the biggest disparities were linked to M-Birr- and mortgage, with more than 30% differences. There was also a huge gender gap in mobile money and digital payment knowledge. On usage, the proportion of women who utilised financial services and products was bigger than men. The only financial service with more male users than females was microfinance loans; an equal percentage of both genders knew about it. Insurance was another essential product, with more female policyholders than men. Health insurance was the most popular one, with a comparable number of male and female buyers. Besides, during the past twelve months, using services like saving and sending was more prevalent amongst women than men. As for receiving, 88% of male respondents used this service during the past year, 7 points more than men.

The number of female participants who knew and used services such as mobile money and digital payment was outstanding compared to men, yet almost 20% more men transferred money.

(B) Trust questions

The data from this study revealed that a bigger proportion of female owners of the micro-business from urban areas found the banking sector reliable and trustworthy than their male counterparts. 90% of women completely trusted their bank; that of men was 25 points less. However, all of the male respondents were happy to recommend their bank to other people; 5% of women were still doubtful. The gender differences in trusting the banking system and financial advisors were 9 and 14 points. Further, more than half of the women believed the bank officers trusted them; a smaller group of men exhibited such self-confidence. Understanding the technical banking terms was the common logic among individuals who found themselves reliable and trustworthy; loyalty for women and having a profitable business for men were other reasons. As expected, lack of self-confidence resulted from the scarcity of money and being poor.

Banking products, like Electronic banking, ATMs, and mobile money, were accepted by more female business owners than men; less than a quarter of men trusted ATMs contrasting 62% of women.

As for the state-owned or private banks, most women trusted both private and public banks. On the contrary, most male respondents only trusted state-owned banks. The majority of individuals in this group declared the quality of provided information on services is poor. Only one-tenth of women stated they were well-informed; that of men was 6%. Concerning the quality of banking services, just 18% of the males and 14% of the female participants believed the available services were of high quality.

Micro-business owners trusted financial organisations, including banks, since their money was safe with them, these organisations were reliable, and their money was accessible whenever needed.

In short, the proportion of knowable women who successfully adopted financial services and trusted the banking sector was more than their male peers.

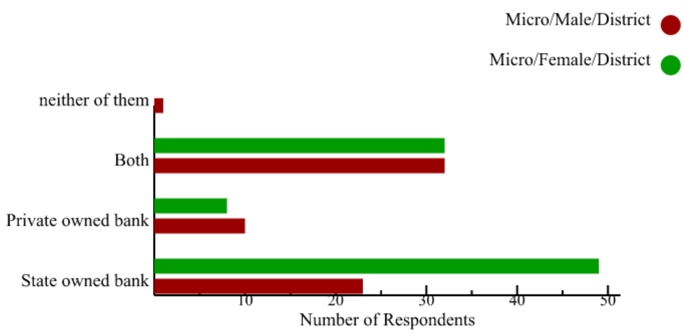
Micro Enterprises, Rural and Gender

Like micro-enterprises from the urban areas, women were the majority of the micro-enterprise respondents from the rural, and the most populated age group was 20-29. More than 60% of the participants married, and Islam's the dominant religion. Individuals with a high school diploma have consisted more than half of the respondents.

(A) Financial literacy questions

The female participants without a steady income were twice as many as men, and fewer women had an expense log. On average, women earned more; almost one-third of them were in the middle of the income scale (5,001-10,000Birr), which was 8 points more than their male peers. Those with an income of less than 5,000Birr were 60% of the population; most were male. No one had a revenue of more than 20,000Birr; 14% of women and 9% of men had an average salary between 10,000-20,000Birr. Overall, micro-business owners were from a low-income group; less than one-third could make ends meet. In the same context, more than 60% of the people in this group did not have sufficient savings to last a month without any earnings; more men were in this level of financial resilience than women. One-quarter of the women could have survived between one to three months; the figure for males was 5 points lower. The percentage of people with an endurance of more than three months was so small; only 4% of women and 6% of men were at this level. All of the female participants in this group had a bank account; 2% of men were accountless (Figure 5.33).

Figure 5.33 *Comparing the account ownership among male and female micro-enterprises from the rural areas (district). Question: Do you have an account in a private-owned bank or a state-owned bank?*



A larger group of men gave the highest rate to saving for emergencies and retirement, contrasting female owners of the micro-enterprises. Around half of the women did not have any financial plan for their old age; the relevant figure for men was lower. Regardless of their attitude toward saving for emergencies and retirement, the percentage of female savers was higher than men; the difference was 3 points. Also, during the past twelve months, 82% of women saved money which was 7% more than men. Nevertheless, more men sent and received money during the same period. On average, fewer women utilised money transferring services in comparison to their male counterparts.

On the saving methods, a similar proportion of both males and females prioritised saving in a bank; informal ways of saving, like saving clubs, were favoured by more women. Concerning investments, the stock market and digital currencies were known amongst more men; more than half of men were eager to buy stocks. Though most of the female participants in this group did not know anything about cryptocurrencies, the proportion of them who wanted to save money in the form of digital currencies was more than that of men. Besides, the questions on inflation and numeracy skills were answered accurately by more male owners of the micro-business than their female peers.

Overall, a larger group of men knew about financial services and products, such as digital payment, mobile money, M-Birr, CBE-Birr, Mortgages, and current accounts. Credit cards and microfinance loans compared knowledgable men and women; still, more men adopted these services than women. Other services had more male users than female participants; CBE-Birr, with 26 points difference, was the most notable one.

There was no knowledge disparity between male and female respondents in terms of life insurance, yet fewer women purchased this type of insurance. It should be noted that there was no gender gap in the sum of the policyholders (for all types of insurance). Health insurance was the most popular one.

In summary, more men had a better level of knowledge and usage of financial services, though women earned more and exhibited a higher level of financial resilience.

(B) Trust questions

Trusting the banking sector, such as banks, the banking system, financial advisors, and banking from other regions, was more prevalent among female respondents than men, even though fewer female micro-business owners from rural utilised financial services. Also, 95% of women were willing to introduce their banks to families and friends, 5% more than men. A larger proportion of women trusted financial advisors; still, fewer of them assumed the bank officers trusted them. These female respondents believed the officers do not trust them since they are poor and from the low-income categories. On the other hand, most of the respondents believed that understanding financial concepts and being loyal would increase their level of trustworthiness.

On trusting financial services and products, almost half of the population believed electronic banking and ATMs are reliable, while fewer women trusted mobile money.

Nonetheless, a relatively bigger number of female respondents voted for the high quality of the service. More men were well-informed about financial services.

Participants in the micro-enterprise group trusted financial organisations because they believed their money was safe with them and they were reliable.

More than half of the female participants in the micro-business group only trusted the state-owned banks and used their services; fewer of them trusted both. On the contrary, the type of ownership did not matter for men, and around half of them visited both private and state-owned banks.

Based on the analysis from previous parts, a pattern would emerge when comparing the number of financial users in two groups. In a group with a larger number of financial users, the type of bank ownership is not important; the majority of the group would trust both private and state-owned banks and utilise their services. On the opposite, when the proportion of knowledgeable individuals who adopted financial services is low, more people tend to rely on state-owned banks.

Small Enterprises, Urban and Gender

The small-enterprise group was composed of an equal number of male and female business owners; around half of the respondents were 30 to 39 years old. A high school diploma was the highest education degree for almost 50% of business owners. More than three-quarters were married. Also, they made money relatively better than the other categories.

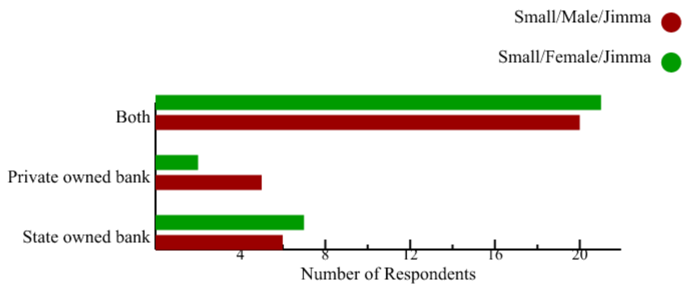
(A) Financial literacy questions

Everyone had a bank account, and more than 60% preferred to use services from both private and state-owned banks (Figure 5.34). On average, men were younger than women; almost twice more females as males were in the 30-39 age group. Plus, a larger group of women held an undergraduate degree; 17% of men had a BSc degree which was 20 points less than women.

Regarding the income level, fewer women than men were at the top and bottom of the income quantiles. One-fifth of men earned less than 5,000Birr and 31% more than 20,000Birr; the corresponding figures for women were 7 and 14%, in turn. Yet, on average, female owners of small businesses made more money than their male peers.

Around half of the women had a monthly income within 5,000 to 15,000Birr, just 27% of the men were in this income group. The monthly earnings of 23% of men were between 15,001-20,000, which was 6% less than women. As expected, more women earned enough to make ends meet, but more men kept track of their expenses.

Figure 5.34 *Comparing the account ownership among male and female small enterprises from the urban areas (Jimma). Question: Do you have an account in a private-owned bank or a state-owned bank?*



Furthermore, 83% of men understood the financial consequences of inflation; the figure for women was 69%. As for numeracy, 10% of men answered the question correctly, 3 points more than women. Also, only 3% of female respondents did not have a regular income; that of men was 10%.

Nonetheless, financial resilience was a different story; more male participants were able to overcome a financial shock, such as losing their income, in comparison to females. The lowest level of financial resilience was observed amongst 45% of women and 31% of men; these people did not have enough savings to last a month without any earnings. Around 60% of men and half of the women could have survived more than one month without income.

All of the participants in this category had a somewhat comparable attitude toward saving for emergencies and retirement; one-tenth of them prioritised saving for old age. The percentage of people with a pension was not more than 16, and around 40% relied on their assets. Still, female respondents without any financial plan were more than their male peers.

An equal proportion of both genders knew about the saving account and adopted it, yet more women prefer to save money through the bank account. Using informal saving methods, e.g., saving clubs, were more prevalent among female owners of small businesses. During the past twelve months, female savers were also more than males.

Even though more women utilised services, like current accounts, CBE-Birr, and microfinance loans, more men knew about these services. While more men adopted mobile money and M-birr, a larger group of women had a good level of knowledge about them. Furthermore, the sum of male policyholders was one point less than women; more women purchased life insurance than men. Those who owned health or car insurance had a similar proportion between both genders.

In comparing the number of individuals who knew about and used digital payment and mortgage, male participants were more than females. During the past twelve months, more than 80% of respondents in this group sent and received money; the number of female senders was higher than their male counterparts.

On high-risk products, 7% of people knew about digital currencies, yet more men were willing to purchase them. The stock market was better known among respondents than crypto; half of the men knew about it, and 40% were prepared to buy stocks. The proportion of women was smaller than men, both in knowledge and willingness to contribute.

(B) Trust questions

People in this group, similar to other categories, believed in the financial organisation since they were reliable and safeguarded people's money. Other reasons, including secured and timely transactions and transparency of the process, were also mentioned. The majority of men and women declared that both private and state-owned banks are trustworthy.

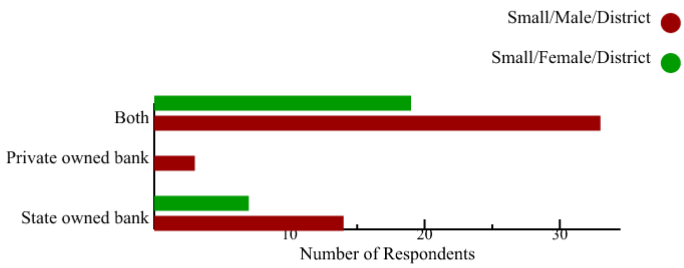
Demonstrating their trust in the banking sector was more noted among male owners of small businesses than women. In other words, more men found the banks, financial officers, the banking system, and banks from other regions trustworthy in contrast to their female counterparts. Also, more men declared that the quality of the provided information and banking services are excellent. Fewer women assumed the bank officers trusted them; they were from low-income groups and had limited knowledge of financial concepts. Those with a higher level of self-esteem understood the banking terms better and were loyal to their banks.

A bigger group of men trusted electronic banking and ATMs concerning financial services and products, yet more women found mobile money reliable. Nevertheless, all participants were willing to introduce their banks to families and friends.

Small Enterprises, Rural and Gender

Comparable to small enterprises in urban, most individuals in this category were aged between 30 and 39 years, married, and held a high school diploma. All respondents had a bank account (Figure 5.35); having a bank account in both private and state-owned banks was the most popular choice. None of the women favoured having an account only in private banks; that figure for men was 6%.

Figure 5.35 *Comparing the account ownership among male and female small enterprises from the rural areas (district). Question: Do you have an account in a private-owned bank or a state-owned bank?*



However, unlike in Jimma city, male business owners from districts were more than female ones, and the dominant religion was Islam. Scio-demographics characteristics of men and women were comparable; most were married and had a high school diploma.

(A) Financial literacy questions

Regardless of their gender, almost three-quarters of people had a steady income. Still, the number of men who recorded their expenditures and could make ends meet was more than those of women. There was no gender difference amongst people neither at the top nor at the bottom of the income quantiles; 11% earned more than

20,000Birr, and 27% made less than 5,000Birr, every month. 41% of males and 36% of females in this group had an income between 5,000 to 15,000Birr. However, the proportion of women in the 15,001-20,000Birr was 7 points more than their male peers. On financial resilience, more men exhibited the ability to subdue financial shocks, such as losing income. Almost 60% of female business owners in this category could not last a month without income; the corresponding figure for men was around 40%. More than half of the men had enough assets to cover living costs for more than one month; nearly 40% of women were at this level. It should be mentioned that saving for emergencies and old age were more common among men than their female counterparts. On saving for retirement, the number of female respondents without any financial plan was more than that of men. More than half of male business owners relied on their assets for old age.

When comparing men and women in their preferences in saving methods, fewer male business owners chose to save in cash or saving clubs. Regarding numeracy and inflation, 10% more women than men answered the question on the interest compound correctly, but fewer of them understood inflation.

On average, financial services and products, including digital payment, mobile money, M-birr, CBE-Birr, credit cards, mortgage, and current accounts, were better known and adopted by more male owners of the small business than their female counterparts. Saving accounts had more male users, but more women knew about them. Plus, 92% of women saved money during the last twelve months, which was 18 points more than men. Even though life insurance was more popular with men, the sum of general policyholders was bigger among women. The only services with a larger group of female users were microfinance loans and weather insurance. Likewise, more women knew about microfinance loans.

Money transferring services were utilised by 96% of men in this group; the relevant figure for women was 85%. During the past twelve months, fewer women sent and received money; male senders were 14% more than their female peers. Novel methods of investment, such as purchasing digital currencies and stocks, were favoured by more men than women.

(B) Trust questions

Trusting the banking sector was more prevalent amongst men than women; a larger proportion of men trusted banks, the banking system, the financial advisor, and banks from other regions. All male participants were willing to recommend their banks to others; that of women was 88%. More than half of the women stated that only the state-owned banks are trustworthy; a similar proportion of men trusted both private and state-owned banks. None of the male respondents chose to trust just private banks.

Fewer women believed the provided information and services were of excellent quality; hence, a smaller sum of them found Electronic banking, ATMs, and mobile money trustworthy, contrasting their male peers. The gender differences for trust in electronic banking and mobile money were 12 and 22% in turn.

Safety of money and reliability of the organisation were the common reasons for trusting a financial organisation among male and female respondents. Women also stated the importance of the secured transaction in building their trust; for men, the accessibility of money mattered more.

Around three-quarters of men assumed the bank officers trusted them; the matched figure for women was 62%. It seemed that having a profitable business boosts the people's self-confidence; understanding the technical terms was mentioned too. On the other hand, people with a lower level of income and those with limited knowledge of banking terms assumed bank officers do not find them trustworthy.

Chapter 6. Relationship Between Financial Literacy and Financial Inclusion: Statistical Evidence from Ethiopia

6.1 Introduction

Is there any relationship between financial literacy and financial inclusion? This question has recently become the locus of attention among scholars in economics and relevant fields, and different methods were taken to illustrate the relationship between financial literacy and financial inclusion (Klapper and Lusardi, 2020; Grohmann et al., 2018; Ramakrishnan, 2011; Steinert et al., 2018; Breza et al., 2020). Around the same time, another strand of literature emerged, which combined financial literacy and financial inclusion as a new concept called financial capability (Johnson and Sherraden, 2007; Sherraden, 2013).

On micro-based studies, Ramakrishnan (2011) states that financial literacy is an essential adjunct to improving financial inclusion. It was also believed that financial literacy supports financial inclusion through various means. For example, an increase in financial literacy would boost savings (Bernheim et al., 2001; Cole et al., 2011; Doi et al., 2014; Jamison et al., 2014; Berry et al., 2018) and affect holding financial products such as insurance and mortgage (Line et al., 2017). Cole et al. (2011) conducted a survey to understand why the demand for formal financial services is low in India. It was reasoned that inadequate financial literacy and high cost constitute challenges in uptake and usage of formal financial services. Yet, Grohmann and Menkhoff (2020) argued that financial services should be physically accessible to enhance the usage dimension of financial inclusion. Jamieson et al. (2014) and Horn et al. (2020) tried to find the direction of the causal link between these concepts, but their conclusions were opposite each other. Jamieson et al. (2014) claimed that providing financial services has no impact on financial literacy, while financial literacy enhances saving behaviour. On the other hand, Horn et al. (2020) indicated that an increase in access has a longer effect than a financial training program. Yet, both have a positive impact on financial behaviour.

Further, it has been revealed that there is a link between financial literacy and usage of financial services among entrepreneurs (Drexler et al., 2014). On the other hand, Steinert et al. (2018) argued that saving promotions could significantly impact financial literacy.

Grohmann et al. (2018)'s work was the first in a cross-country context; their results deduced a significant relationship between financial literacy and financial inclusion. They collected data on four concepts to measure financial literacy: risk diversification, inflation, interest rate, and interest compounding. For measuring financial inclusion, both access and usage of financial services were taken into account.

There were also studies focused on Sub-Saharan Africa, which assessed the relationship between the usage dimension of financial inclusion and financial literacy; Berg and Zia (2014) and Cole et al. (2014) in South Africa, Berry et al. (2018) in Ghana, Buehren (2011) in Uganda, and Sayinzoga et al. (2016) in Rwanda. Plus, Batista and Vicente (2013) in Mozambique and Coville et al. (2014) in Nigeria focused on proving a link between the access dimension of financial inclusion and financial literacy.

Rivero (2022), in their work on financial literacy and education in South America, explained that financial literacy without financial inclusion is null; the positive effect of financial education is offset without proper access to financial services.

Measuring financial literacy and financial inclusion is the quintessential step in investigating the relationship between these two concepts. Methods employed to measure financial literacy and financial inclusion have been the subject of debate among scholars for a long time. Though the literature increasingly concentrates on standard definitions and dimensions of financial literacy and inclusion, it is unclear if the same applies to the measures used to evaluate them. Nonetheless, generalising the results might be challenging due to the differences in sampling, designing studies, and measuring methods.

This study will introduce two new indices to measure financial literacy and financial inclusion at the individual level and assess the relationship between these two indices. The approach is to find the appropriate perspectives for tailoring the frameworks of financial literacy and financial inclusion for specific environments. The data were collected through a survey instrument designed particularly for this study. Moreover, the sampling method was a combination of the cluster, stratified and convenience to reach the target population and investigate the impact of gender on financial literacy and financial inclusion. Ethiopia is an interesting place to conduct this research due to its rapid economic growth, political reforms and increasing attention to women's rights.

Participants were selected from residents of the Jimma Zone, the largest region in Ethiopia.

This study differs from the previous studies due to its population under study, using a novel definition for financial literacy, developing new surveys, employing particular methods of measuring financial literacy and financial inclusion, and assessing the impact of gender in a new light. In addition, this is the first study to measure and compare financial literacy in two different ways; the big three-question and our proposed method.

I start by looking at the proxies used frequently by other researchers to measure financial inclusion and financial literacy. The methodology section describes the methods of collecting data and constructing indices, followed by the data analysis. The final section is about the results and discusses the dependency of financial literacy and financial inclusion in Ethiopia.

6.2 Conceptual Background

6.2.1 Financial Inclusion

Financial inclusion refers to individuals and enterprises' access to affordable and beneficial financial services to satisfy their financial needs (World Bank). Proxies employed to measure financial inclusion and relevant barriers have advanced significantly over the past 15 years. Nevertheless, a large part of the studies on financial inclusion was tailored to assess inclusiveness in developed countries because of the data availability. Hence, the number of studies in developing economies was limited and mostly done by big organisations, namely, the Global Findex by the World

Bank and Financial Access Survey (FAS) by the International Monetary Fund.

FAS survey collects supply-side data from Central banks or financial regulators worldwide and is about access to and usage of financial services. In contrast, the Global Findex centres around demand-side data; the data illustrate how adults use formal and informal financial services in 149 countries. Before Global Findex, almost all comprehensive studies at the cross-country level only focused on the supply-side data, whilst survey-based data on the demand-side were limited. Everyone was interested in extending access to financial services, and users of these services were of no importance. The geographic spread of the bank branches and ATMs was the supply side's leading indicator (Beck et al., 2007).

Nonetheless, the supply-side data did not provide the entire perspective and illustrated a fragment of the financial inclusion reality; plus, assessing the socio-demographic characteristics of the financial service users was challenging (Klapper and Singer, 2017; Demirgüç-Kunt and Klapper, 2013). Beck (2016) believed that an accurate measure of financial inclusion should rely on survey data, a combination of individual-level and bank-level data, to provide more in-depth insights into access to and use of financial services. Honohan (2008) used a combination of survey and banking system (banks and microfinance institutions) information to assess the proportion of users of formal financial services in 160 countries. The importance of context was noted in their work by asking questions about access to financial services in low-income countries instead of inquiring about the value of their financial assets. Their work was revolutionary; however, access to accurate banking data in many countries is difficult or impossible.

Furthermore, previous studies showed that financial inclusion should be a multidimensional concept (Sarma, 2008; Klapper and Dorothe, 2018; Beck, 2016; Klapper and Singer, 2017); hence a thorough measure should include all dimensions.

Regarding the measurement, the most popular method is the number of individuals with a bank account, yet, measuring through a single indicator ignores other critical aspects of financial inclusion, like the usage of financial services. Plus, it could be the case that each measure reflects a specific dimension, and these dimensions differ in terms of their relationship with performance. Therefore, some researchers developed surveys to gather more in-depth information, and others took a step further by constructing indices (Sarma, 2008; Camara and Tuesta, 2014; Mialou et al., 2017; and Pesque-Cela et al., 2020).

Beck et al. (2007) were pioneers in the World Bank who tried to measure financial sector outreach and determine factors influencing it across countries. They argued that previous methods, such as the ratio of private sector credit to GDP, are very crude and undeveloped and just reflect the number of financial institutions rather than the distribution of financial services. They introduced two types of indicators; access indicators and usage indicators. The number of bank branches and ATMs per capita and square kilometre was presented as the indicators for access; the higher number illustrates better access to financial services. For the usage, the number of loan and deposit accounts per capita and the average amount of loans and deposits relative to the GDP per capita were introduced as the usage indicators. The higher ratio of the accounts to the population means more significant usage. In comparison, the smaller ratio of the average loans and deposit sizes to the GDP per capita indicates those account holders are not big firms or affluent groups.

Later on, Beck et al. (2018) wrote a column on financial inclusion, its drivers and its effects in the VOX CEPR's Policy Portal. Based on the new evidence from the IMF-DFID conference on financial inclusion, they suggested that facilitating access to payment and saving instruments could have a higher impact on financial inclusion than microcredit. Similarly, Sholever and Harris (2019) proposed that access to and usage of digital payment and saving services should be employed as financial inclusion indicators. Nevertheless, Beck et al.'s (2007) method of measuring financial inclusion involved individual indicators that overlooked the overall effect of these factors together; besides, they just focused on lending and depositing.

Sarma (2008) pointed out the previous proxies' shortcomings and constructed the financial inclusion index; their proposed measure, which covered various aspects of financial inclusion, was easy to compute and comparable across countries. They argued that the provided information by the previous proxies is incomplete and, in some cases, misleading since proxies were used individually. Their composite index was computed through a weighted average of the three dimensions, namely accessibility, availability, and usage of banking services that were measured by the number of account holders, the number of branches and ATMs, and the size of the deposits and loans over the GDP, in turn.

Based on this index, Ethiopia's rank was 84 from 100; data were drawn from the world bank 2004 and 2006 datasets. The method of building this index was non-parametric since assigning weight to each dimension was arbitrary. Parametric methods to construct financial inclusion indices were utilised in the work of Mialou et al. (2017) and Cámara and Tuesta (2014).

Camara and Tuesta (2014) employed the two-stage Principal Component Analysis to estimate the weight assigned to each dimension of the financial inclusion. They argued that previous indices were unrefined and straightforward due to the lack of comprehensive datasets (integrated information from both supply and demand-side). They solved this issue by combining the demand-side data from World Bank Global Findex (2011) and supply-side information from the International Monetary Fund's Financial Access Survey (2013). The new dataset helped them assess financial services' access, usage, and availability. The prior indices were built only based on the supply-side data. This index measured usage, barriers and access to formal financial services.

Another composite index for financial inclusion was presented by Mialou et al. (2017). Though many debated that both demand and supply sides should be considered while measuring financial inclusion, the only data that Mialou et al. (2017) used to construct the index were the supply side drawn from the IMF's Financial Access Survey (FAS) database. In their approach to financial inclusion, three dimensions were considered; outreach, usage, and quality of financial services. These dimensions were chosen due to the availability of the IMF data.

It should be noted that researchers used various measures to achieve the study's goals; hence, there exists the compatibility issue, which decreases the reliability of the outcomes. Moreover, proxies need to be improved and updated regularly to keep pace with advances in economics and psychology (Beck, 2016).

Considering all of these facts and the importance of the demand side, I decided to measure the access and usage of financial services from the customer's perspective. Due to severe data gaps on socio-demographic characteristics of the users of financial services, a set of questions based on the previous studies were designed to capture information on who has access to financial services. These data will be employed to construct an index since this method would reflect all dimensions of financial inclusion and their overall impact.

6.2.2 Financial Literacy

After the financial crisis in 2008, concern about financial literacy among consumers increased (Atkinson and Messy, 2011; Lusardi and Mitchell, 2014). Researchers took numerous approaches during the last 15 years; some just defined it, some proposed a new indicator, some assessed its impact on financial inclusion, and so on. After suggesting a new definition, Atkinson and Messy (2011) evaluated it through a survey. Lusardi and Mitchell (2011) proceeded and assessed its impact on wealth accumulation. Moreover, some researchers created an index to measure financial literacy, like Nanziri and Leibbrandt (2018).

What is financial literacy? Scholars have no commonly accepted terms and criteria for this concept despite various empirical and theoretical studies on financial literacy. Chen and Volpe (1998) defined it as personal financial management and measured it through a 36-item survey. Mason and Wilson (2002) argued that a financially literate person could get, comprehend, and evaluate the information to make a financial decision; there were elements of financial behaviour in this definition. Moore (2003) suggested a similar description and designed a survey to collect relevant data. However, Hilgert et al. (2003) made it all about financial knowledge, while Remmund (2010) and Huston (2010) believed the ability to use this knowledge is as essential as the knowledge itself. Lusardi and Mitchell's (2011a) version of financial literacy included numeracy skills and knowledge of basic financial concepts and overlooked other factors. Atkinson and Messy (2012) grasped the shortcoming of the available definitions. They explained that financial literacy is a "combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing". Zia and Carpena (2018) suggested that financial literacy is a three-dimensional concept; comprehensive awareness and attitudes. One of the most extensive definitions of financial literacy was suggested by OECD (2013); it was a multidimensional concept that incorporated knowledge, awareness, skill, attitude, and ability to use this knowledge to make a sound financial decision.

It is noteworthy that different authors use different terminologies on financial literacy, all of which fall within its broad category. The main issue in defining financial literacy framework is the availability of financial services. Mason and Wilson (2000) denoted in their book that the effectiveness of financial products and services depends on their availability. In other words, there is no 'one size fits all.' The accessibility of financial services differs from country to country, and based on that, the demanded level of financial literacy varies. Hence, the relevant knowledge of the available financial services should be assessed while defining and measuring financial literacy. The importance of the availability of financial services was taken into account by Sholevar and Harris (2019) in their proposed definition. From their perspective, financial literacy is defined by awareness and knowledge of exploiting the available financial services for satisfying financial needs to reach financial inclusion.

The other issue is related to the type of knowledge, as tacit knowledge differs from codified knowledge and is embedded in the human mind through experiences. These definitions often covered codified knowledge, and the relevance of the tacit knowledge was disregarded. In our survey, twelve questions assess the tacit financial knowledge of available financial services in Ethiopia.

The diversity of proposed definitions could explain the variety of financial literacy indicators. In fact, measuring financial literacy is a challenging task yet crucial due to its vital role in enhancing the level of wellbeing (Sholevar and Harris, 2019).

Generally, the literature illustrated that financial literacy could be measured through the objective test (Lusardi and Mitchell, 2014), subjective assessment (French and McKillop, 2016), or a combination of both (Allgood and Walstad, 2016). Yet, there is the issue of overestimating one's knowledge through self-assessment.

Researchers evaluated respondents' financial literacy by designing a new survey or replicating/modifying the existing ones in objective methods. In these surveys, knowledge was often regarded as the indicator of financial literacy (Chen and Volpe, 2002; Lusardi and Mitchell, 2008a; Hung et al., 2009), though many debated this is not a unidimensional concept.

The most common method of measuring financial literacy is Lusardi and Mitchell's (2006) big three questions related to the respondent's knowledge of saving, investment, and risk content areas (Lusardi and Mitchell, 2008, 2011, 2017). This measure was adapted from their previous research on evaluating financial knowledge on retirement planning in the context of a developed country. Other scholars followed a similar path and assessed particular financial knowledge, like Jones (2005) focused on credit, Müller and Weber (2008) on the US stock market, and Lusardi and Tufano (2009) on debt. On the contrary, Chen and Volpe (2002), Remund (2010) and Huston (2010) tried to assess more than one strand of financial knowledge, e.g., borrowing, budgeting and saving (Nicolini et al., 2013). They typically counted the number of correct answers to determine the level of financial literacy (Atkinson et al., 2012; Hung et al., 2009).

Furthermore, these researchers conducted regression analyses to investigate other determinants of financial literacy. Some even constructed indices to reflect the various dimensions of financial literacy. Tayler (2011) was one of the pioneers to introduce a multidimensional index to measure financial literacy; Nanziri and Leibbrandt (2018) also designed an index to measure this concept. Goyal and Kumar (2021) reasoned that a country-specified financial literacy index could be a good substitute for a standard measure in their systematic review and bibliometric analysis.

Though replicating indicators positively influences developing a standard measure of financial literacy and reduces the comparability issue, this could have some drawbacks, too. As mentioned, many still use the three big items to measure financial literacy (Lusardi and Mitchell, 2007, 2008; Agarwal et al., 2015; Idris et al., 2016), but others found them unfit to answer the question of their study. Lusardi and Mitchell (2017) were among those who believed that the indicators of financial literacy should be enhanced considering the circumstances as they wrote: "imperative to expand the range of measures of financial literacy, to better evaluate the types of problems that people find most difficult" (page 6).

To measure financial literacy among Dutch households, Van Rooij et al. (2011) developed their questionnaire, explaining that the existing instruments like three questions are not competent enough to capture all dimensions of financial literacy.

Paiella (2016) criticised the three big questions and pointed out their failure in capturing the difference between the actual ability to understand finance from cognition and numeracy skills. Carpena and Zia (2020) argued that inadequate knowledge and skills of consumers in developing countries would reduce the efficiency of Lusardi and Mitchell's (2009) method; they reported that the settings of the study required more in-depth inquiries.

To recap, there is little consensus regarding the definition and measure of financial literacy. This issue might have stemmed from the research goal, the context and the population under the study, or both. However, many agreed that the best method of collecting data is a survey instrument that contains questions on literacy and the demographic characteristics of the participants.

In this study, financial literacy is not the sole focus like Chen and Volpe (2002) or Huston (2010), but a component of a more extensive study similar to Lusardi and Mitchell (2007, 2008) and van Rooij et al. (2011); I aim to investigate the link between financial literacy and financial inclusion and its determinants. Since a definition of financial literacy is a prerequisite for its measurement, I used the definition proposed by Sholevar and Harris (2019) to develop a country-specific questionnaire, which is going to assist in creating a comprehensive measure for financial literacy. After collecting data, an index would be constructed to measure financial literacy among participants. Furthermore, the big three questions of Lusardi and Mitchell (2009) were employed to increase the comparability of the results.

6.3 Results

This section presents the link between financial literacy and financial inclusion outcomes.

This study tried to provide data on access to and usage of financial services at the individual level, considering their socio-demographic characteristics, e.g., age, gender, occupation, and location of residence.

6.3.1 Financial Literacy Index

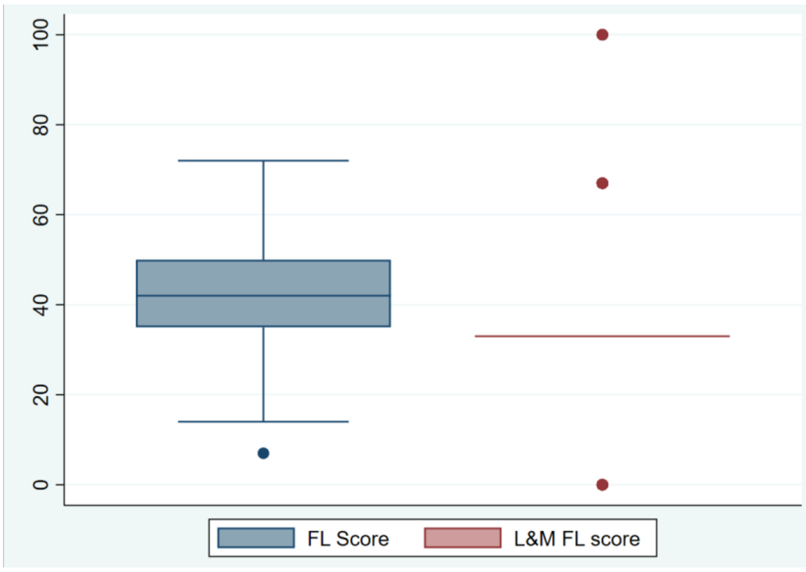
Comparing Lusardi and Mitchell's (2009) Scale With the Proposed Index

Table 6.1 shows the descriptive statistics of the financial literacy score of the big three questions (L&M FLscore) and our index. On Lusardi and Mitchell method, the smallest and largest score are 0 and 100, and the mean is 32, with a standard deviation of 19.1. The distribution is leptokurtic and peaked; there are more values in the distribution tails and more close to the mean. Our scale's smallest and largest values are 7 and 72; the data mean is 42.11, with a standard deviation of 10.87. The distribution curve is platykurtic and has a flat peak with more dispersed scores.

Table 6.1 Descriptive statistics of the proposed financial literacy score and L&M score (Big three questions)

	Mean	Std. Dev.	Min	Max
Lusardi and Mitchell Financial literacy score	32.0	19.1	0	100
Proposed Financial Literacy score	42.1	10.9	7	72

Figure 6.1 *Distribution of scores for the proposed index and L&M financial literacy score - plot box*



Another method of comparing the distribution of scores for these two methods is using a boxplot. As is illustrated in the following graph, there are some differences in the distribution of the Lusardi and Mitchell (2009) financial literacy score and our financial literacy score. The median in the L&M (Lusardi and Mitchell, 2009) score is 33, while ours is around 42. The minimum score for L&M and our index are 0 and 7, respectively, and five people attained the full score of 100 on the Lusardi and Mitchell scale. The corresponding L&M FL score for the respondent who had the lowest score (7) in our index was 33, which means just one correct answer in this case. More than 17% of respondents scored 0 in the L&M survey, while some attained more than 50 points in our index. Plus, around 70% of 470 respondents answered just one question in the L&M survey and attained 33 points; the relevant score in our index ranged from 7 to 68 (Figure 6.1).

Overall, the scoring system in L&M was rigid and couldn't reflect the actual state due to its inability to classify participants according to the different levels of financial sophistication.

Table 6.2 OLS regression results for the impact of gender on the score of financial literacy with the L&M FL score as the dependent variable

Explanatory Variables	Beta Coefficients
Constant	30.31***
	(24.36)
Gender	3.39**
	(1.93)
N	470
R^2	0.008
Adjusted R^2	0.006
F-Statistic (d.f. 1, 468)	3.72

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

I also regressed financial literacy score on gender; the results table (Table 6.2) represented a bigger p-valued for t and F in L&M than our financial literacy score

(Table 6.3).

Table 6.3 OLS regression results for the impact of gender on the score of financial literacy with the proposed FL score as the dependent variable

Explanatory Variables	Beta Coefficients
Constant	40.58***
	(57.73)
Gender	3.06***
	(3.08)
N	470
R^2	0.02
Adjusted R^2	0.02
F-Statistic (d.f. 1, 468)	9.47

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

Finally, I measured the internal consistency by employing Cronbach's alpha to compare the reliability of each measure. The alpha value varies from zero to one; 0.7 and above show that items in the scale are conceptually related (Griethuijsen et al., 2015). If the alpha value is low, it could be concluded that either there is weakness in the instrument or it is not the best measure to use.

Alpha Cronbach for the Financial literacy score of Lusardi and Mitchell (2009)

Number of items on the scale: 3

Average inter-item covariance: 0.0273783

Scale reliability coefficient: 0.4077

Alpha Cronbach for the Financial literacy score of the proposed measure

Number of items on the scale: 28

Average inter-item covariance: 0.0091632

Scale reliability coefficient: 0.7142

As pictured, the alpha value for the proposed measure is above 0.7, indicating an internal consistency between the items and the measure is reliable; the alpha value of Lusardi and Mitchell's scale is 0.4.

These outcomes illustrate the inefficiency of the big three questions and the necessity of employing a more competent method to measure financial literacy.

Who Is Financially Literate?

At first, I had two assumptions regarding financial literacy score and demographic characteristics; the average financial literacy score is equal for men and women and for people from urban and rural. To test these assumptions, I applied the t-test analysis. Gender and location of residence (urban/rural) are binary variables and equal to one for males and people from urban.

Table 6.4 OLS regression results for the impact of socio-demographic characteristics on the score of financial literacy with the FL score as the dependent variable

Explanatory Variables	**Beta Coefficients**
Constant	25.933***
	(15.47)
Gender	2.870***
	(3.35)
Age	0.562
	(1.17)
Education	3.264***
	(8.83)
Income	1.77***
	(6.01)
N	470
R^2	0.278
Adjusted R^2	0.272
F-Statistic (d.f. 4, 465)	44.82

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

If we assume the mean financial literacy scores between men and women are equal, then the alternative states there is a difference between these two values.

Table 6.4 shows the outcomes of testing this hypothesis. The mean for women's scores was lower than men's; hence, I conclude that there is a difference between the level of financial literacy among men and women. This difference is significant and there is no overlapping in confidence intervals.

Regarding the location of residence, the t-test outcomes showed that the average financial literacy score of people from Jimma (urban) was around 3.3 points more than that of the districts (rural). I reject the null hypotheses and accept the alternatives according to these results. The average financial literacy score is not equal among males and females and people from rural and urban (Table 6.5).

Table 6.5 Two-sample t-test for the impact of gender and urban/rural on financial literacy score

	N	**Mean**	**Standard Error**	**Standard Deviation**	**95% Confidence Interval**		**Degree of Freedom**	**t value**	**Two Tailed p-value**
Gender									
Women	235	40.58	0.7	10.8	39.19	41.97			
Men	235	43.64	0.7	10.74	42.26	45.02			
Combined	470	42.11	0.5	10.87	41.12	43.09			
Difference		-3.06	0.99		-5.01	-1.1			
							468	-3.077	0.002
Rural/Urban									
Rural	321	41.08	0.6	10.83	39.89	42.27			
Urban	149	44.32	0.87	10.65	42.59	46.04			
Combined	470	42.11	0.5	10.87	41.12	43.09			
Difference		-3.23	1.06		-5.33	-1.13			
							468	-3.027	0.002

Linear regression analysis was another method I used to assess the impact of socio-demographic variables, e.g., age, education and income, on financial literacy. I used multinominal regression in this part of the analysis. Gender is a dummy variable; the male is equal to 1. If the null hypothesis is that the population regression coefficient equals zero, that of the alternative is not equal to zero. According to the outcomes, education had the highest coefficient with a p-value lower than 0.01, implying education and financial literacy score were positively correlated, and this association was highly significant.

Figure 6.2 *The impact of age and gender on financial literacy score*

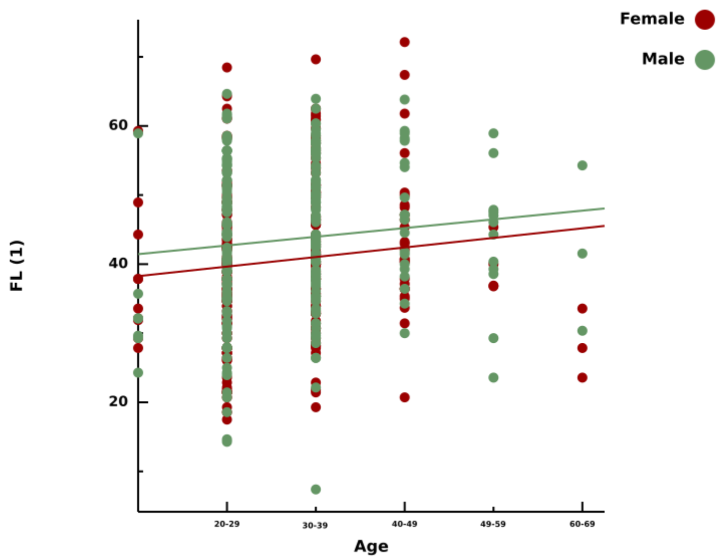
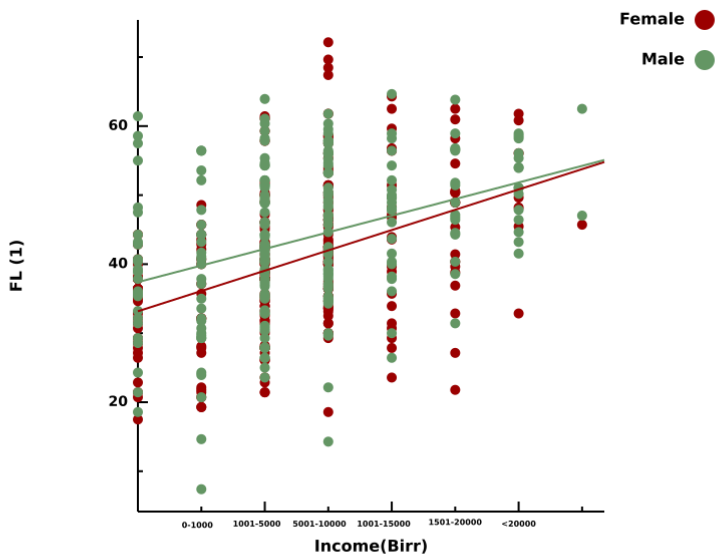
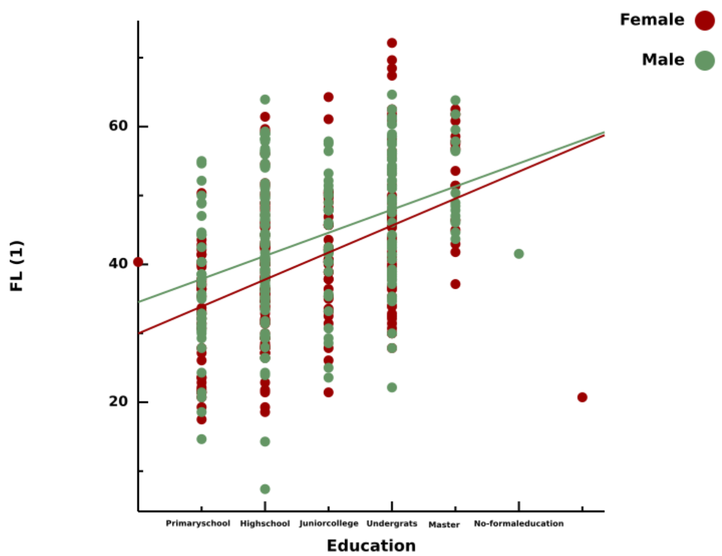


Figure 6.3 *The impact of income and gender on financial literacy score*



Similarly, gender and financial literacy had a positive relationship which was statically significant since the p-value was less than 0.01. The coefficient for income was also positive, and the p-value of 0.000 demonstrated its significance. Age had the lowest coefficient and highest p-value; age and financial literacy score are insignificantly connected. Hence, gender, income, and education have a meaningful effect on financial literacy, but the impact of age is not significant here. Figure 6.2 compares the impact of age on financial literacy score between male and female respondents. Further analysis showed that the impact of income on financial literacy score is more significant amongst women compared to men (Figure 6.3). As illustrated in Figure 6.4, education has a similar effect; an increase in education will improve the financial literacy of women faster than men. Based on these results, financial literacy is higher for men, those with higher education levels and higher income.

Figure 6.4 *The impact of education and gender on financial literacy score*



6.3.2 Financial Inclusion Index

Owning a bank account was the most famous indicator of financial inclusion in early works, yet, such a proxy would ignore other aspects of an inclusive system. I measured the proportion of the adults with a bank account; based on this proxy, more than 99.7% were financially included. However, only five people from the sample attained the total score by employing the proposed index.

To assess the impact of gender and location (urban/rural), I ran the t-test analysis. If we assume that gender does not affect the level of financial inclusion, the mean score for men and women should be equal. The t-test result (Table 6.6) shows two points difference between the average financial inclusion score for men and women; therefore, I reject the null hypothesis. As shown in the results table, there is an overlapping in the confidence intervals; the impact of gender on financial inclusion is not significant at the 0.05 level. Our hypothesis regarding the location of residence (urban/rural) is people from urban and rural are similarly included. The t-test analysis demonstrated that people from Jimma city (urban) had a higher mean than rural people; the effect of location (rural/urban) on financial inclusion is significant at the 0.05 level. I reject the null hypotheses and conclude that people with different gender and locations do not have the same financial inclusion level.

Table 6.6 Two-sample t-test for the impact of gender and urban/rural on financial inclusion score

	N	**Mean**	**Standard Error**	**Standard Deviation**	**95% Confidence Interval**		**Degree of Freedom**	**t value**	**Two Tailed p-value**
Gender									
Women	235	67.99	1.01	15.58	65.98	69.99			
Men	235	70.11	1.03	15.88	68.07	72.16			
Combined	470	69.05	0.73	15.75	67.62	70.48			
Difference		-2.12	1.45		-4.98	0.72			
							468	-1.47	0.143
Rural/Urban									
Rural	321	67.36	0.88	15.85	65.62	69.1			
Urban	149	72.69	1.22	14.95	70.26	75.11			
Combined	470	69.05	0.72	15.75	67.62	70.48			
Difference		-5.32	1.54		-8.35	-2.28			
							468	-3.44	0

I ran multiple regression analysis between financial inclusion score and income, gender, education, and age; through this regression, I could illustrate that income and education were good predictors of financial inclusion through multiple linear regression. This model was statistically significant since the p-value for t and F were less than 0.01 (99% confidence).

Table 6.7 OLS regression results for the impact of socio-demographic characteristics on the score of financial inclusion with the FI score as the dependent variable

Explanatory Variables	Beta Coefficients
Constant	51.31***
	(20.09)
Gender	1.86
	(1.43)
Age	0.6
	(0.81)
Education	2.36***
	(4.19)
Income	3.53***
	(7.85)
N	470
R^2	0.202
Adjusted R^2	0.1952
F-Statistic (d.f. 4, 465)	29.43

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

As listed in Table 6.7, the highest coefficient belonged to income, followed by education; gender and age were third and fourth. Age and financial inclusion score were positively correlated, but this relation was statically insignificant because its p-value was greater than 0.05. Likewise, gender was positively associated with financial literacy score and had a p-value bigger than 0.05. Confirming the t-test results, regression analysis showed gender affected the level of inclusion; the average score of men was higher than women. However, the association between financial literacy score and gender was statically insignificant due to a p-value greater than 0.05. The level of education also affected financial inclusion; respondents with a higher level of education scored higher than those with a lower level. Furthermore, there was a considerable difference between income levels, favouring a higher income level; low earners were more likely to be excluded financially. The p-values for education and income were lesser than 0.01, which means these two variables had a highly significant relationship with financial inclusion.

Figure 6.5 *The impact of gender and education on financial inclusion score*

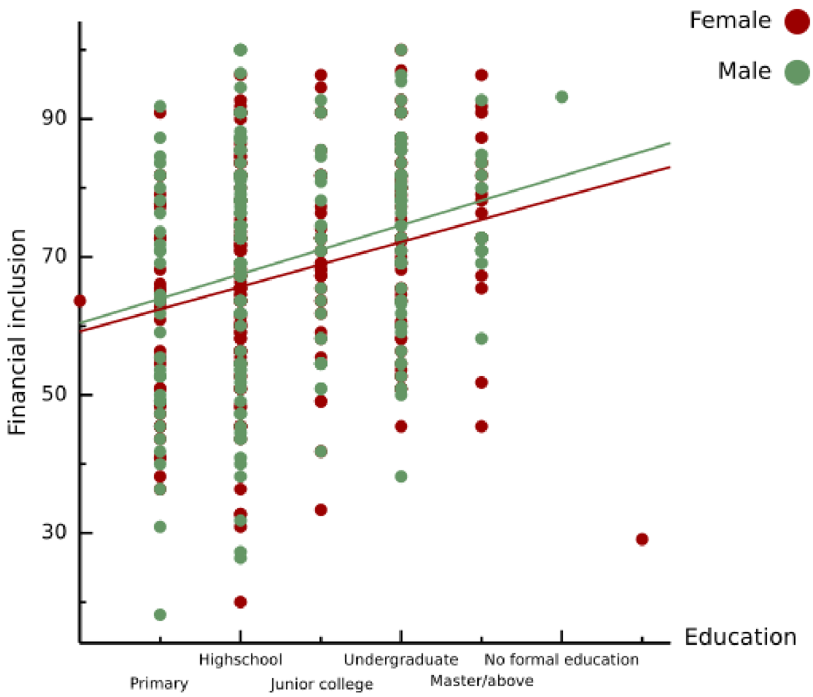
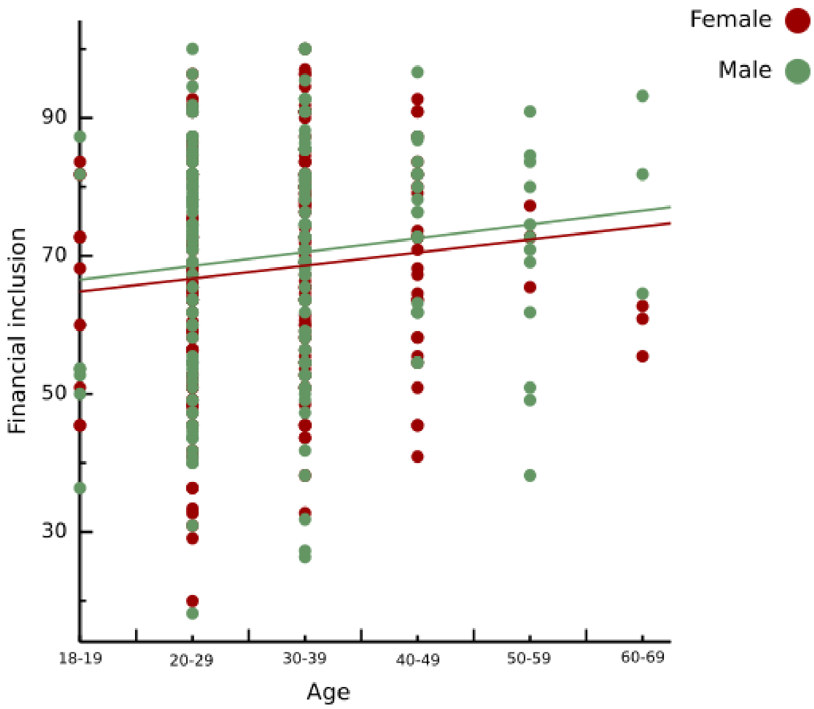


Figure 6.5 and Figure 6.6 compare the impact of age and education on financial inclusion score amongst the respondents. Age and education influence financial inclusion score positively, yet the effect of education is more pronounced among male respondents compared to female ones.

Figure 6.6 *The impact of age and gender on financial inclusion score*



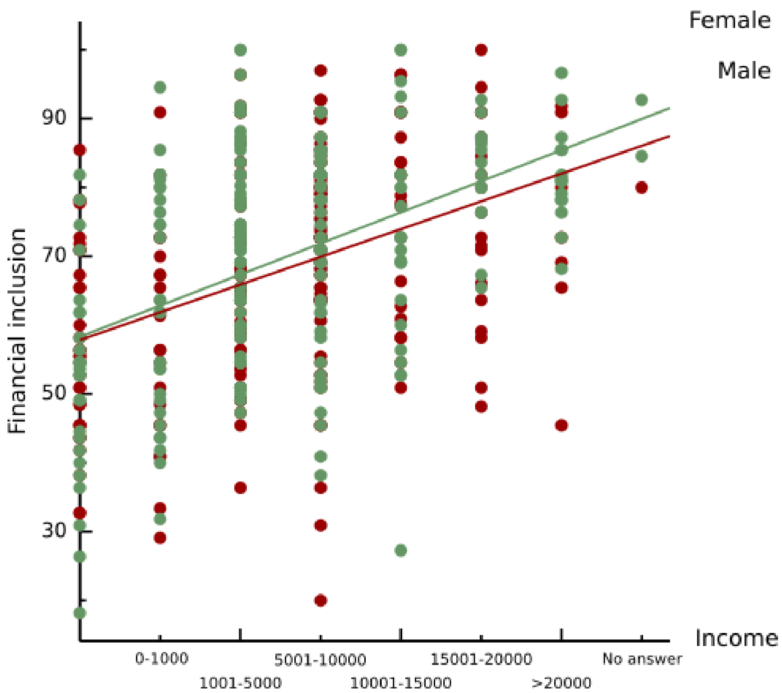
Income and Financial Inclusion

Though I demonstrated that in a higher level of financial inclusion, people earn more than those in the lower level, the causality direction is unknown. Many researchers maintained that financial inclusion could improve the wellbeing of the poor by enhancing their financial behaviour (Duvendack et al., 2011; Chliova et al., 2015; Steinert et al., 2018). There was also some documented evidence that financial inclusion would reduce the income gap (Burges and Pande, 2005; Honohan, 2007; Beck et al., 2007). In unpacking the mechanism, it was explained that owning a bank account would facilitate access to formal banking services, increasing financial resilience and the possibility of saving, investing, and better debt management. Besides, using financial services could secure new income sources or improve the current ones (World Bank 2014, pp. 51–101). Nonetheless, Duvendack and Mader (2020) revealed that measuring the effect of financial inclusion on income level varies case by case and is challenging to estimate since they mostly happen at the initial stages.

At the other end of the spectrum, studies investigated the determinants of financial inclusion, and they primarily named income one of the most influential factors. By assessing the Worldbank's Global Findex dataset, Zins and Weill (2016), Musa et al. (2015), and Soumaré et al. (2016) confirmed that income has a significant impact on financial inclusion. Olaniyi and Adeoye (2016) in Africa, Tuesta et al. (2015) in Argentina, Chithra and Selvam (2013) in India, and Sanderson et al. (2018) in Zimbabwe reached similar conclusions. Considering income as one of the main determinants of financial inclusion sounds rational due to the fact that involuntarily financial exclusion often happens due to insufficient income.

Most of these studies used the WorldBank income groups to study the link between income and financial inclusion. However, within-country income groups might be better to analyse the income level and its impact on financial behaviour (Wale and Makina, 2017). In this study, the within-country income groups were employed to assess the effect of income on financial literacy and financial inclusion.

Figure 6.7 *The impact of income and gender on financial inclusion score*



The regression analysis between financial inclusion score and income revealed that one unit increase in income would raise the financial inclusion score by 4.14 points; the constant for this regression is 58.63. As displayed in Figure 6.7 and listed in

Table 6.8, the impact of income on financial inclusion is significant.

Table 6.8 OLS regression results for the impact of income on the score of financial inclusion with the FI score as the dependent variable

Explanatory Variables	Beta Coefficients
Constant	58.63***
	(46.43)
Income	4.14***
	(9.70)
N	470
R^2	0.167
Adjusted R^2	0.165
F-Statistic (d.f. 1, 468)	94.16

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

6.3.3 Relationship Between Financial Literacy and Financial Inclusion

This section first describes the distribution of financial literacy and inclusion scores with regard to the socio-demographic traits, e.g., occupation, age, education, income and location of residence. Next, through regression analysis, I will assess whether there is any link between financial literacy and financial inclusion (Table 6.9).

In general, the average of financial inclusion for this population is higher than financial literacy. Five individuals attained a total score of financial inclusion; the highest score for financial literacy was 72.

Small-business owners attained the highest score for financial literacy and inclusion compared to employees and micro-business owners; there was a gender gap.

Among age groups, men aged 60 to 69 years old had the highest average inclusion score; the corresponding age group for financial literacy belonged to men in the 40-49 group. On average, women with a master's degree and above illustrated a higher financial literacy level than other education groups. In addition, the average financial literacy score for the urban area's female residents was higher than the others in the urban/rural category. However, the highest average of financial inclusion among urban/rural and education classes belonged to the urban area's male residents and men with master's degrees and above. Interestingly, men who did not disclose their income had the highest average financial literacy and financial inclusion score.

Table 6.9 Highest average score of financial inclusion and financial literacy among categories

		Average	Obs.
Financial literacy	Job category	47.4 (Male, small business owners)	76
	Income category	54.8 (Male, those who didn't answer the question)	2
	Age category	47.2 (Male, the age group of 40-49)	20
	Education category	52.4 (Female, Master's degree and above)	15
	Urban/Rural	44.4 (Female, Urban residences)	78
Financial inclusion	Job category	74.8 (Male, small business owners)	76
	Income category	88.6 (Male, those who didn't answer the question)	2
	Age category	79.8 (Male the age group of 60-69)	3
	Education category	93.2 (Male, illiterate)	1
	Urban/Rural	73.1 (Male, Urban residences)	71

I employed regression analysis to answer the question on the dependency of financial inclusion and financial literacy. A simple correlation test between financial inclusion and financial literacy illustrated a positive and significant relationship between financial inclusion and financial literacy; those more included performed better in the financial literacy test.

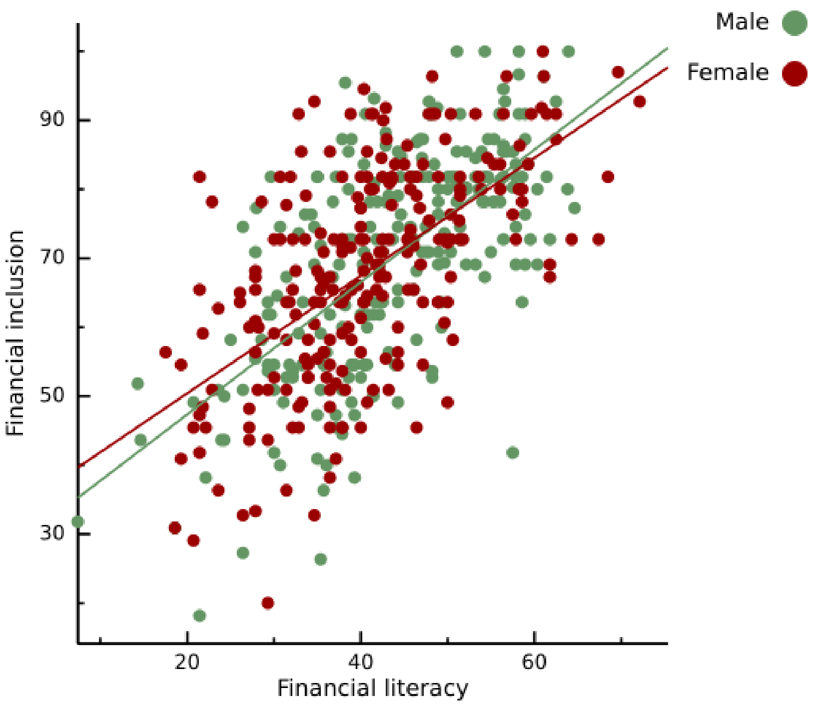
In the regression table (Table 6.10), the p-value for the F is 0, which means our model is statistically significant at all 90, 95, and 99% significant levels. Therefore, there is a 99% confident that this regression has explanatory power. The R-square is 0.3901; hence, 39% of the variation in financial literacy is explained by financial inclusion. The P-value of t for both the financial inclusion score and our constant is less than 0.1; financial inclusion significantly impacts financial literacy. The coefficient for financial inclusion score shows a positive correlation, and one unit increase in financial inclusion caused a 0.43 unit increase in financial literacy.

Table 6.10 OLS regression results for the impact of financial inclusion on financial literacy score with FLscore as the dependent variable

Explanatory Variables	Beta Coefficients
Constant	12.34***
	(7.00)
FI score	0.431***
	(17.30)
N	470
R^2	0.39
Adjusted R^2	0.39
F-Statistic (d.f. 1, 468)	299.31

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

Figure 6.8 *The link between financial inclusion, financial literacy and gender*



The effect of socio-demographic characteristics factors on financial inclusion and financial literacy showed that income level, residence location (urban/rural), and age have a more substantial impact on financial inclusion than financial literacy. Yet, financial literacy was more affected by gender compared to financial inclusion. There is an insignificant yet positive correlation between financial literacy and gender; men had a slightly higher mean than women. In financial inclusion, this effect is still positive but more negligible; men's average financial inclusion score was higher than women's. Marital status and education level had a similar impact on financial literacy and financial inclusion.

And finally, the results of analysing data showed a positive link between financial literacy and financial inclusion. Figure 6.8 illustrates the relationship between financial literacy amongst male and female respondents; the gender gap is not significant.

6.4 Conclusion

This study was designed to investigate the relationship between financial literacy and financial inclusion. Acquiring comprehensive and fitting scales was a prerequisite for analysing the link between these two concepts. The prior methods of measuring financial literacy were either rigid or developed for advanced economies; hence, designing a country-specific questionnaire to collect data and construct an index that reflects all financial literacy dimensions was vital. Regarding financial inclusion, since the most recent dataset (Findex) was composed in 2016-17, another instrument was introduced to evaluate the level of access and usage of financial services and products among participants.

I presented new financial literacy and financial inclusion indices and measured their dependency. I also demonstrated the proposed measure of financial literacy is more efficient than the big three-question method.

The results illustrated a slight gender gap; men had better financial literacy and financial inclusion score. Furthermore, there is a link between financial literacy and financial inclusion. Income, age, education, and residence location affect financial literacy and inclusion.

In Ethiopia, the highest financial literacy and financial inclusion score was observed among older men, respondents from Jimma city, small-business owners and those who earn more than 15000Birr.

Chapter 7. Trust in the Banking Sector Case Study of Ethiopia

7.1 Introduction

Trust and its role in the finance context have attracted the attention of many researchers. The relevance of trust in the financial sector has been discussed and acknowledged widely, and various methods have been proposed to measure it. Though there are advances, there is little consensus on definition and scaling methods. In part, this may be due to the fact that trust cannot be observed or measured directly but through its influence on other variables such as choosing a specific financial institution or following the financial advice of a particular advisor. In the literature, trust was defined conceptually (Rousseau et al., 1998) or operationally (Ennew et al., 2011). Yet, it should be taken into account that trust is a multidisciplinary concept and has roots in diverse areas from psychology to organisational behaviour.

Different methods were proposed to scale trust; some regarded it as unidimensional (McEvily and Tortoriello, 2011), and others showed it is a multifacet concept (Moin et al., 2021). Another strand of the literature used distrust as an indicator to fathom trust (Lewicki et al., 1998). In the handbook of trust research, Bachmann and Zaheer (2006) argued that the lack of trust occurs when there is asymmetric information between two parties, customers and financial institutions.

This study goes beyond the current literature by designing a specific survey to collect data and scale various types of trust; narrow-scope and broad-scope trust. Since I treated trust as a multidimensional concept, similar to Moin et al. (2015; 2021) and McEvily and Tortoriello (2011), proxies were also developed to measure these dimensions. I distinguished between trusting the private and state-owned banks to investigate the impact of bank ownership. Furthermore, trust in novel services such as electronic banking and mobile money was examined.

Since most of the studies on trust were conducted in developed countries, Ethiopia, as an emerging economy with rapid economic growth, was an interesting place to run this research. The target population was chosen from employees and small/micro business owners who live in Jimma Zone, the most populated zone in Ethiopia. Indices were constructed to examine trust in the banking sector, narrow-scope and broad-scope trust.

The next section describes the results, and the final part provides an overall insight into the matter.

7.2 Results

7.2.1 Descriptive Analysis

A large proportion of the study group (95%) was willing to recommend their bank to their family members because of the large number of branches, high-quality services, and trustworthiness. The prevalent answer for not recommending their bank was the financial instability of those banks. Some of these criteria were in line with Sekhon et al. (2014). Expertise, integrity and consistency, communications, shared values, and concern and benevolence would affect trust.

The ownership of financial institutions (private or state-owned) could also impact trust among customers. It has been argued that the ownership of the banks could affect their performance. Better performance, a higher level of integrity and accessibility could bring more customers to state-owned banks than private ones. Hence, it is fair to say that state-owned banks have some elements of being trustworthy; in other words, the types of ownership of financial institutions (private or state-owned) could influence customers' trust. Yet, more than half of the respondents had bank accounts in both private and state-owned banks in our survey. A similar proportion stated they trust both private and state-owned banks. People who trusted both private and state-owned banks believed that banks are highly regulated and treat customers fairly. Another interesting finding was that 45% of the respondents trusted only state-owned banks, not private, while 3% trusted only private banks. No wonder just 10% of respondents had an account in private banks compared to 37% of account holders in state-owned banks. Notably, the percentage of those without bank accounts was negligible (1%).

Trust in financial services and products varies from trust in banking or financial institutions. Ennew & Sekhon (2007) believed that trust in financial services stems from "an individual's willingness to accept vulnerability on the grounds of positive expectations about the intentions or behaviour of another in a situation characterised by interdependence and risk." Our data showed that just 58% trusted ATM or electronic banking and preferred them over the physical branches. Although mobile money was well-known in this community, just 50% of interviewees trusted it. In this competitive market, working on trust relationships is the key to having loyal customers (Sekhon et al., 2014). Slade et al. (2015) studied 268 non-users of remote mobile payment in the UK on the importance of trust in remote mobile payment and its adoption. The results illustrated that trust positively impacts behavioural intention among non-users to adopt this technology. Noteworthy, the trust had a more substantial impact on those with existing knowledge about mobile payment.

The good level of trust in their banks among participants could result from high-quality financial services and products. The majority of people were happy with the quality of provided services and products; more than 70% rated them excellent/very good. Only 3% believed the quality of the provided services and products is poor. Furthermore, our data showed that one-third of the study group acknowledged they are well-informed about banking services and products.

The final part of the trust questions was bout the perception of customers about bank officers; whether officers trust them. Around 60% of respondents thought they were trustworthy and bank officers trusted them; understanding the banking concepts (22%) and being loyal (18%) were the most assumed reasons. Other reasons such as paying the instalments on time (13%), having a profitable business (12%), and working for the government (11%) with a similar percentage were also frequently chosen by participants. In contrast, one-fourth of participants felt the bank officers did not trust them. Based on the participants' perceptions, it can be concluded that officers did not trust customers due to the lack of money. Answers such as having a low-paid job (40%) or being poor (26%) were common.

7.2.2 Constructing the Scale For Trust in the Banking System

To measure trust in the banking sector, I measured three dimensions; trustees, trustors and context. These three dimensions were assessed through their impacts on the participants' behaviours. The score for trust in the banking sector was a derived value ranging from 0 to 9. In the case of choosing the correct answer, the respondent gets one and zero in all other cases (yes or no and multiple-choice questions). Questions with the 5-point Likert scale have a different way of scoring; the score will rise from zero to 1 by an increase in the ranking. The scoring approach was described in Section 4.4.1. For more details, see Appendix 1.

The scores would be normalised by calculating the percentage with respect to the maximum score; the score ranges from 0 to 100.

7.2.3 Reliability of the Scale

After constructing the index, I run the Cronbach's alpha to test the scale's internal consistency; the accepted value of Cronbach's alpha is 0.7 (Griethuijsen et al., 2015). The results illustrated the value of alpha for the proposed scale is 0.7, which indicates the items are conceptually related and the scale is reliable.

Number of items on the scale: 9

Average inter-item covariance: 0.0254

Scale reliability coefficient: 0.7003

7.2.4 Who Trusts More

After calculating the trust score, the mean for the sample was 58.6; 89 and 0 were the highest and lowest scores, respectively. Interestingly, more than half of the participants scored higher than the mean.

I employed linear regression analysis to study the impact of socio-demographic variables, e.g., age, education, and income, on trust; the data are reported in Table 7.1. Gender and location of residence were dummy variables. The value is zero for females, married, and rural people, and one for all other cases. According to the outcome, income and education positively affect trust in the banking sector, while age negatively influences the score of trust. Among these variables, income had the highest coefficient with a p-value <0.01, which implies trust is highly affected by the income level; a higher income level is associated with more trust in the banking sector.

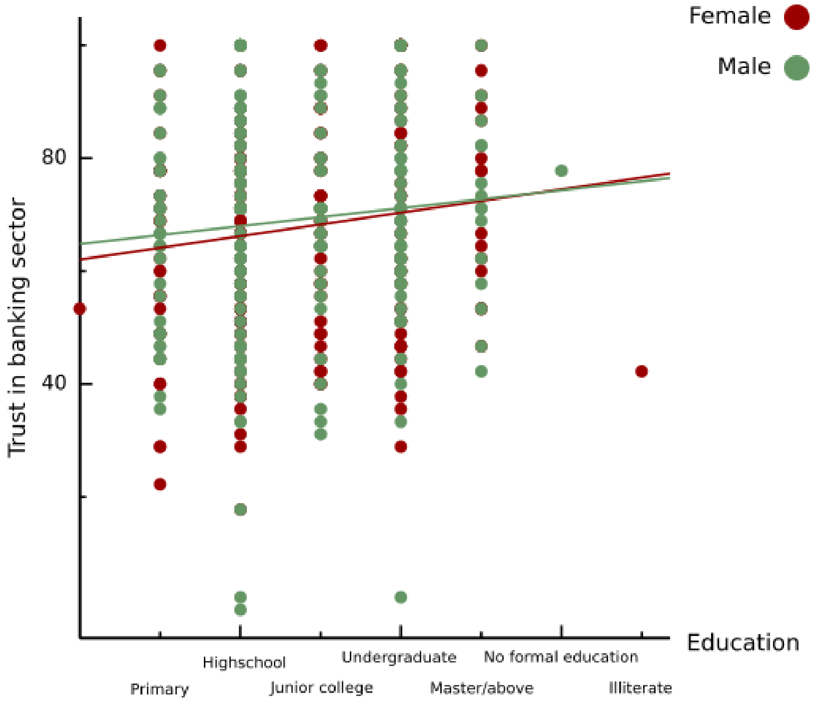
Table 7.1 OLS regression results for the impact of socio-demographic characteristics on the score of trust in the banking sector with trust score as the dependent variable

Explanatory Variables	Beta Coefficients
Constant	50.198***
	(15.95)
Gender (male/female)	1.47
	(0.91)
Age	-0.513
	(-0.57)
Rural/Urban	-3.314*
	(-1.86)
Education	1.742**
	(2.50)
Income	2.174***
	(3.85)
N	470
R^2	0.06
Adjusted R^2	0.05
F-Statistic (d.f. 5, 464)	5.98

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

Another interesting result was about the impact of education on trust among women; women with a higher level of education had more trust in the banking sector than their male peers (Figure 7.1).

Figure 7.1 *Relationship between gender, education and trust in the banking sector*



To understand the effect of socio-demographic traits, I disaggregated the impact of these characteristics by examining them separately. In sampling, I stratified the population into three job categories; employees, small-business owners and micro-business owners, and an equal number of men and women were selected. After estimating the score for all respondents in our, male owners of the small businesses showed the highest level of trust in the banking sector, while employed individuals took second place; employed women had slightly a higher score.

Regarding the location of the residence (Rural/urban), rural people scored higher than urban residents and had more trust in the banking sector. Other socio-economic characteristics, like income, education, and marital status, were also taken into account; Men had more faith in the banking system. Male respondents in the 10,001-15,000Birr group had the highest score among income groups. Unmarried men, compared to married ones and undergraduates among other education groups, found the banking system more trustworthy (Table 7.2).

Table 7.2 Socio-economic characteristics and trust in the banking sector

Means of trust score for the socio-demographic groups		
	Female	Male
Income groups		
Did not answer	48	48.8
0-1,000	60.1	53.1
1,001-5,000	58.6	61.2
5,001-10,000	58.5	59.7
10,001-15,000	63.8	68.1
15,001-20,000	58.3	63.9
>20,000	60	63.3
Job categories		
Employees	58.9	58.1
Micro-businesses	57.9	55.6
Small-businesses	56.1	64.98
Education groups		
Completely illiterate	31	0
No formal education	42	67
Primary and secondary	53.8	55.6
High school	55.7	58.8
Junior college	58.6	58.3
Undergraduate	61.8	62.5
Masters degree/above	64.3	62
Urban/Rural		
Urban	57.9	57.8
Rural	57.7	60.1

7.2.5 Broad-scope Trust and Narrow-scope Trust

Hansen (2012:282) defined broad-scope trust as "the expectation held by the consumer that companies within a certain business type are generally dependable and can be relied on to deliver on their promises". To measure the broad-scope trust, I investigated respondents' trust in the institutions. There were questions in the survey inquiring about the respondents' trust in the banking system, financial advisors, banks from other regions, and financial services, such as ATMs and mobile money. The scoring method was similar to that of the index for trust in the banking sector. There were five questions; three were on the Likert scale, and two were yes and no questions. The average score for broad-scope trust was 62.44; 0 and 100 were the lowest and highest scores, respectively. Half of the sample scored higher than 62.44.

Table 7.3 Socio-economic characteristics and broad-scope trust

Means of score for broad-scope trust score in socio-demographic groups		
	Female	Male
Job categories		
Employees	63.19	63.34
Micro-businesses	60.15	57.1
Small-businesses	60.95	70.68
Income groups		
Did not answer	52.5	53.86
0-1,000	64.95	54.21
1,001-5,000	60.33	64.36
5,001-10,000	61.74	64.21
10,001-15,000	70.29	74.5
15,001-20,000	62.22	71.75
>20,000	64.57	68
Education groups		
Completely illiterate	52	0
No formal education	36	60
Primary and secondary	54.97	58.67
High school	58.5	61.35
Junior college	63.44	61.75
Undergraduate	66.51	67.87
Masters degree/above	69.07	75.2

Disaggregating the impact of socio-demographic characteristics was the next step. The results were quite comparable to those of the trust in the banking sector (Table 7.3); rural residents and single people had a higher broad-scope trust. Men with an income between 10,000 to 15,000Birr showed the highest level of trust among the income groups. Male owners of the small enterprises scored higher than the other two groups; females running the micro-business had the lowest score. However, age positively impacted the broad-scope trust; a higher level of broad-scope trust was observed among the older people. Plus, participants with a master's degree and above had the best score among the other education groups.

While broad-scope trust is about trusting the whole system, narrow-scope trust is centred around the relationship between a service provider and a customer. According to Sirdeshmukh et al. (2002: 17), narrow-scope trust is "the expectation held by the consumer that the service provider is dependable and can be relied on to deliver on its promises."

On narrow-scope trust, I asked two questions: How much do you trust your bank? And, do you recommend your bank to your family and friends? The score ranged from 0 to 100 after normalising. The highest and lowest scores were 100 and 0; the mean was 91.5. Among job categories, small-business owners, micro-businesses, and employees ranked one to three, in turn. Interestingly, the gender gap was positive, and women had a higher score of broad-scope trust than their male peers. Also, education had a negative impact on this type of trust; the highest scores belonged to people with no formal education or primary school certificate. Male owners of the small businesses, those with an income of 10,000-15,000Birr, unmarried women and urban residents trusted their banks more than the others (Table 7.4).

Table 7.4 Socio-economic characteristics and arrow-scope trust

Means of Narrow-scope trust score for job categories		
	Female	Male
Job categories		
Employees	90.81	90
Micro-businesses	94.34	87.5
Small-businesses	89.82	95.39
Income groups		
Did not answer	91.25	96.43
0-1,000	88.1	85.86
1,001-5,000	91.67	92.09
5,001-10,000	93.03	86.96
10,001-15,000	94.76	95.42
15,001-20,000	92.78	91.25
>20,000	94.29	92
Education groups		
Completely illiterate	50	0
No formal education	100	100
Primary and secondary schools only	97.14	94.44
High school	92.27	90
Junior college	90.56	92.5
Undergraduate	90.68	90.97
Masters degree and above	92	83.33
Urban/Rural		
Urban	94.87	93.8
Rural	90.83	89.63

7.3 Conclusion

In this study, I have sought to measure trust in the banking sector in the context of a developing country. Accordingly, a questionnaire was developed, and data were collected. The study was conducted in Jimma Zone, the most populated zone in Ethiopia; employees and self-employed individuals were the target population. The results indicated that participants trusted their bank since they believed their bank was reliable and guaranteed the safety of their money; plus, money is accessible when they need it. Moreover, respondents illustrated a good level of trust in banking products and services, such as ATMs, electronic banking, and mobile money; they acknowledged the services and provided information is of excellent quality. The bank's ownership, state-owned/private, did not significantly influence participants' trust since more than half had a bank account in both private and state-owned banks. And finally, most of the participants believed they were trustworthy, and bank officers trusted them.

More detailed analysis confirmed a gender gap, and factors like education, income, and age influence trust in the banking sector; age had a negative effect. Males, younger individuals, unmarried and rural residents had a more profound trust in the banking sector.

Age and education were positively correlated with broad-scope trust. Males, unmarried and rural residents showed higher broad-scope trust.

The gender gap for the narrow-scope trust was positive; women trusted their banks more than their male counterparts. In addition, unlike trust in the banking sector and broad-scope trust, people from Jimma city scored higher than rural residents; they trusted their bank more than districts residents. Education and age also negatively influenced narrow-scope trust. Income had a positive impact on both narrow and broad-scope trust.

Overall, most of the respondents demonstrated a good level of trust in the banking sector. Furthermore, they reckoned the system was trustworthy and their bank was reliable.

Chapter 8. Financially Savvy Women Are Less Excluded Socially: Evidence from Ethiopia

8.1 Introduction

Though the gender aspect of financial inclusion is intriguing, the lack of relevant data on women is apparent, particularly in emerging economies. Studies confirmed that women have lower access and usage of formal financial services than men (Morsy, 2020; Lusarid and Mitchel, 2007; Klapper and Singer, 2018). Yet, debating gender disparity in access to financial services and its roots has drawn the attention of a few scholars (Demirguc-Kunt et al., 2013; Aterido et al., 2013); theories from other disciplines, like psychology and management, have been borrowed to solve the issue. Some argued social and cultural barriers impeded women's access to services (Nuzzo and Piermattei, 2020; Hundie and Tulu, 2021); others ascertained inadequate financial literacy would cause financial exclusion (Oji, 2015).

The dependency on financial literacy and inclusion has been explained by many (Grohmann et al., 2018; Steinert et al., 2018; Breza et al., 2020). The positive correlation between financial literacy and inclusion has been demonstrated in the work of Ramakrishnan (2011), Bernheim et al. (2001), and Cole et al. (2011).

If these two concepts are linked and improving one could enhance the other, could the gender gap be lessened by reducing social and cultural barriers in emerging economies? It was speculated that women restricted by social and cultural norms are more likely to be financially excluded and lower their financial literacy. Establishing such a hypothesis requires fieldwork and thorough investigation that we are going to offer. The current study tries to find the answer to this question. Hence, the first step is scaling financial literacy and inclusion, calculating the gender gap, and then assessing the impact of socio-demographic characteristics.

Location of residence, employment status, education and income were named the main socio-demographic traits affecting financial literacy, access to, and usage of financial services (Demirguc-Kunt et al., 2013; Hundie and Tulu, 2021; Klapper and Panos, 2011; Allen et al., 2016). Though many scholars highlighted the relevance of these factors, few considered them while evaluating the gender gap. The Global Findex, Financial Access Survey, FinLit, and other major datasets utilised random selection to choose the study population. In this study, I employed a stratified sampling method to study the effect of gender thoroughly. Since employment status has a significant and vital impact on financial literacy and financial inclusion, I reduced the influence of this factor by stratifying the sample based on occupation. An equal number of women and men were selected from employees, small business owners and micro business owners. And 30% of the respondents were selected from urban areas to reflect the population's demography. I chose Ethiopia to run the research since it complies with our criteria, like an emerging economy undergoing financial and social reforms.

The most recent Global Findex data on financial inclusion in Ethiopia are for 2017, before the pandemic. Data on financial literacy has been affected by a similar issue. Furthermore, the employed measure was replicated from previous studies customised for developed countries rather than developing ones (Sholevar and Harris, 2019). Therefore, the importance of introducing new scales to measure financial literacy and inclusion emerges.

This study contributes to the literature in a few ways. The main one is this study sheds new light on the gender gap in financial literacy and inclusion. I designed a survey based on the previous research and customised them according to the social and financial circumstances of the study's context; through the collected data on 470 individuals, new indices on financial literacy and inclusion were introduced. To the best of our knowledge, this is the first study in this field to investigate the importance of social classes, e.g., employment status, income level, and location of residence, on gender disparities in financial literacy and inclusion simultaneously in an emerging economy by introducing new and tailored measures. The results illustrate that the gender gap in financial literacy and inclusion is insignificant, and socio-economic factors influence FL and FI among the sample. Furthermore, socially and financially included women demonstrated a good level of financial literacy.

The remainder of this chapter is organised as follows. Section two gives an overview of the current literature on the gender gap and its determinants in financial literacy and inclusion. Next, I discuss the results and outcomes. The final section concludes.

8.2 Conceptual Background

Studies on financial inclusion were primarily tailored for advanced economies due to the data availability and less bureaucratic procedures. Hence, a thorough evaluation of inclusiveness in developing countries is limited to a few studies, mostly done by large organisations, namely the Global Findex by the World Bank and Financial Access Survey (FAS) by the International Monetary Fund.

The IMF's Financial Access Survey (FAS) database is one of the significant data collections on financial inclusion, initiated in 2009. This survey gathers data on access to and use of financial services from 189 countries around the world annually. 64 indicators were constructed during the past decade to track financial inclusion globally. FAS is a dataset on the supply side and collected from Central banks or financial regulators. Since 2019, gender-disaggregated data have been provided for a limited number of countries (Espinosa-Vega et al., 2020).

Nonetheless, some emerging economies, e.g., Ethiopia, stopped supplying FAS with financial access and usage data. At the moment, the most reliable supply-side dataset on Ethiopia's financial inclusiveness is provided by the National bank as an annual report since FAS does not have any data on Ethiopia after 2012. The National Bank of Ethiopia, in the 2019-20 report, stated that the finance sector had increased its physical points of access by expanding the number of banks and branches; there are 16 public and two private banks. Also, the number of microfinance institutions reached 41; 11 public, 13 private, and 17 NGOs. With increasing the number of banks and branches, the number of bank branches to population ratio was 1:15720 at the end of 2019/20. These statistics are good news, yet the Ethiopian finance system needs to relax entry barriers for foreign banks and increase the competition by reducing the superiority of the state-owned banks in order to close the gender gap in access and usage of financial services. By analysing the data from three waves of the Global Findex survey, Morsy (2020) noted a negative relationship between the share of state-owned banks and women's access and usage of formal accounts. Meanwhile, the presence of foreign banks would increase women's access to banking services for business purposes.

The Global Financial Inclusion (Global Findex) database is another major dataset on financial inclusion which focuses on the demand side. Findex is the first dataset on how adults in 148 countries worldwide use formal and informal financial services. This database gives insights into how people save, borrow, make payments, manage risk, use fintech, and plan for the future; the country-level differences were also explored. In 2011, 150,000 individuals from 148 countries, representing 97% of the world's population, were interviewed, and 40 indicators were constructed based on the collected data. The respondents' socio-demographic characteristics were also considered in the data collection process. Findex is one of the databases that provide gender-disaggregated data on financial inclusion. Plus, Global Findex has provided new insights on financial exclusion; Findex reveals who does not use formal financial services and why is that.

As stated by the Global Findex datasets for 2011, 2014, and 2014 surveys in 141 countries, women had a lower level of access and usage of bank accounts than men in 82% of countries. Furthermore, 82% of countries had a gender gap in savings in financial institutions and obtaining loans. In this comprehensive assessment of the Global Findex, high-income countries illustrated a smaller gender disparity in account ownership and its usage for saving or receiving wages compared to low and middle-income countries (Morsy, 2020). It can be concluded that financial exclusion in lucrative countries is lower than in poor ones.

Researchers acknowledged four types of exclusions: access, condition, price, and self-exclusion (Nuzzo and Piermattei, 2020). Access exclusion occurs in those who live in remote areas where establishing a physical point of contact is not profitable for the financial provider; people in remote and rural areas often suffer from price exclusion. Self-exclusion is voluntarily exclusion due to psychological factors such as lack of trust. Condition exclusion directly relates to this study, and results from socio-cultural and legal barriers; this type of exclusion primarily targets women.

Many scholars debated that financial literacy and inclusion are linked, and enhancing one could positively affect the other (Grohmann et al., 2018; Ramakrishnan, 2011; Steinert et al., 2018; Breza et al., 2020). In the same context, four financial decision-making questions were added to the Global Findex questionnaire (Klapper et al., 2015) to show the importance of financial knowledge on financial inclusion. Therefore, any work on inclusion should cover financial literacy and vice versa.

The Standard & Poor's Ratings Services Global Financial Literacy Survey was one of the first worldwide surveys to measure financial literacy; they interviewed 150,000 adults from 140 nations in 2014. Their sample was picked randomly; the sampling units were stratified based on the population size, geography or both. Respondents were chosen using the Kish grid method within the randomly selected households. Finally, data weighting, which includes base sampling weight and poststratification weight, was utilised to increase the reliability of the outcomes. There was neither gender nor occupation stratification. According to the data, 35% of men and 30% of women were financially literate globally.

OECD/INFE International Survey of Adult Financial Literacy is another dataset on financial literacy limited to the 26 countries and economies drawn from Asia, Europe and Latin America; 12 countries are members of the Organisation for Economic Co-operation and Development (OECD). In the 2020 survey, the most recent wave, more than 125,000 adults aged 18 and over were interviewed; financial resilience and wellbeing received special attention. To achieve a robust sample, a random location was selected to sample from, and in some cases, a quota was set to reach a sample representing the population. Their measure of financial literacy covered three aspects; financial knowledge, financial behaviour and financial attitude. The results showed that men have higher score in financial knowledge and well-being whilst women from some countries like Russia and Poland demonstrated wiser financial behaviour compared to men. As for financial attitude, gender disparity among respondents from Korea, Russia, Georgia, Portugal, and Thailand was positive. Still, women had statically lower overall financial literacy score than men.

Many programs were scheduled to enhance financial literacy and inclusion, but the covid-19 pandemic showed that financial literacy and inclusion are still low (Lusardi et al., 2021; CGAP, 2021). Through these programs, usually run by World Bank and IMF, efforts were made to increase access to formal financial services and enhance the level of financial literacy. Yet, financial inclusion and financial literacy determinants vary from country to country. On the supply side, the regulatory frameworks and the competence of the financial providers are two main factors that affect inclusiveness. These two factors have illustrated their relevance in different regions, especially in Africa. Enabling regulatory systems in Kenya, Ghana and Uganda increased the proportion of account holders in financial institutions by more than 12 points from 2011 to 2017 (Findex, 2017). As for the capability of the financial providers, not all of the mobile money providers were as successful as M-Pesa; MoMo mobile money in South Africa had to shut down in 2016 and was reintroduced in 2019 again. According to GSMA's 2021 state of the industry report on mobile money, from 584m registered mobile money accounts in Sub-Saharan Africa, only 159m accounts are active (GSMA, 2021).

Nonetheless, it is not just the supply-side that affects financial inclusion; demand-side related factors influence delivering financial services. In general, socio-cultural norms should be considered while planning to expand the access to and usage of financial services, particularly for women in developing countries. Since social norms influence the participation of women in economic decisions, they could negatively affect their financial literacy as well (Cupak et al., 2018). Findex (2017) reported that the gender gap in North Africa, some parts of Sub-Saharan Africa (SSA) and South Africa is still 9% and has not improved significantly from 2011. With a 12% gender gap in account ownership, SSA has the second-largest gender disparity; the first place belongs to the Middle East and North Africa. According to Findex 2017, the account ownership among Ethiopian men increased by 18 points, while women's was not more than 8 points.

In the same context, the centre for financial inclusion published a report in 2018 about the outcomes of the Findex survey 2017. It was considered that the gender gap in financial inclusion is more evident in countries with lower Gender Inequality Index (GII) (Rhyne and Kelly, 2018). The Gender Inequality Index (GII) by United Nations estimates gender disparity from three aspects; reproductive health, empowerment, and economic status. The empowerment factor is represented by the proportion of parliamentary seats taken by women and the proportion of women over 25 with at least some secondary education. In our sample, more than 92% of women had at least high school diplomas; less than 8% had primary school or lower level of education. The gender gap in education was negligible.

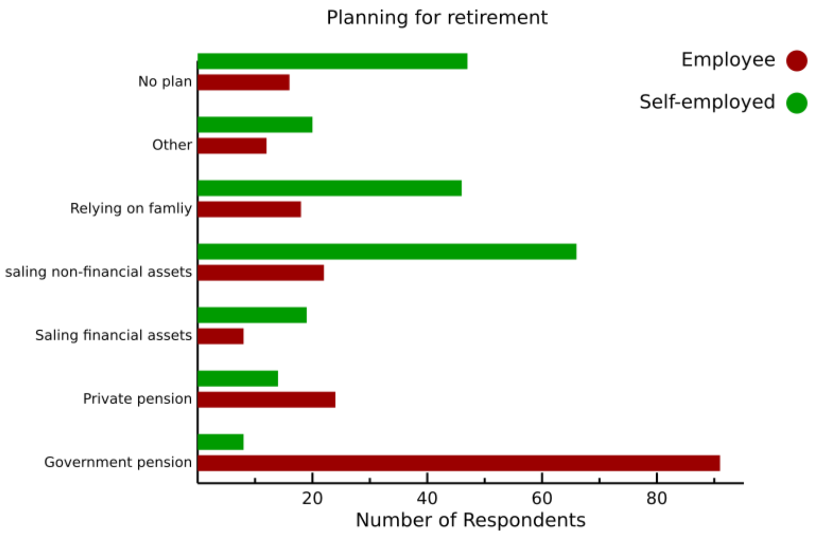
The economic status was measured by the labour force participation rate. Ethiopia, in the 2019 index, was ranked 125 among 165 countries; women occupied 37.3 of the parliamentary seats, 11.5% had at least some secondary education opposing 22.6% of men, and 73.4% of women participated in the labour force, contrasting 85.8 of men (UNDP, 2020). Hence, gender inequality in various aspects of women's lives led to financial exclusion and a lower level of financial literacy. Demirguc-Kunt et al. (2013) explained that legal discrimination against women and gender norms affect women's access to and usage of financial services. They controlled for socio-demographic characteristics such as income, education, location of residence, and age, yet the gender gap in using financial services remained significant. Their data were taken from Global Findex 2011.

On the contrary, Aterido et al. (2013) identified gender inequality in education, income, and employment status as the key drivers of the gender gap in financial inclusion among Sub-Saharan African countries. This finding was in line with that of Morsy (2020). They gathered that higher gender disparity in education is correlated with a more significant gender gap in access and usage of the formal bank account. Furthermore, they explained that the position of women in the household is also relevant. The daily financial management of households in the SSA is typically handled by the head of the family; hence women, in most cases, neither have a bank account nor relevant knowledge. The situation in Ethiopia is similar. According to the World Bank (2019), only 24% of Ethiopian households are female-headed; in male-headed households, men decide how to access and use financial services, even for women. In our study, 60% of the head of households were men, and 40% were women. Overall, all of the female participants in our study had a bank account, and half of them were family-head.

Many researchers named employment status a socio-demographic characteristic that influences financial literacy (e.g., Kempson, 2009; Yoong, 2010; van Rooij et al., 2011). Moreover, Nicolini et al. (2013) gathered financial literacy data from four countries, the US, UK, Canada, and Italy, to evaluate these countries' differences in knowledge and behaviour. In the employment category, seven groups, employed and self-employed, were included. The final results exhibited a positive correlation between self-employed and financial literacy. Similarly, self-employed individuals in the Netherlands had higher literacy score (Alessie et al., 2011). Unemployed people had the lowest level of financial literacy. To reduce the impact of this external factor on financial literacy and inclusion, I chose participants from employed and self-employed individuals.

In the same context, Koh and Mitchell (2019) analysed the differences in financial literacy considering employment status. By applying data from Singapore Life Panel (6,686 respondents aged 50-70), they observed a similar pattern of saving and investment between employed and self-employed. Moreover, they did not find differences in preparing for retirement between employed and self-employed. Plus, the difference between those with a higher level of financial literacy versus those with a lower level was negligible, comparing self-employed and employees. Our data illustrated a gap in retirement preparation between these two categories (Figure 8.1).

Figure 8.1 *Comparing the financial planning skills amongst employees and self-employed respondents. Question: What is your plan for retirement?*



In Ethiopia, there are a limited number of studies investigating the effect of socio-demographic traits on financial literacy and inclusion. Desalegn and Yemataw (2017) assessed the World Bank's 2016 Ethiopian Socioeconomic Survey (ESS) panel data. They noticed that the gender gap in account ownership in Ethiopia was wider than globally, and women used financial services and products less than men. They followed Allen et al. (2012) and focused on three aspects of financial inclusion, including account ownership, saving, and use of financial products and services, such as mobile banking, ATM, internet banking, and agent banking. These researchers explored the low level of financial inclusion in Africa, particularly Ethiopia. The data revealed that not all of the financially excluded individuals were forced to do so; some voluntarily chose to be excluded. Desalegn and Yemataw (2017) gathered that the level of financial inclusion in Ethiopia was lower than that of Sub-Saharan Africa, and the Oromo region had the lowest level in Ethiopia. Literacy, gender, location of residence, and financial capability would affect both voluntary and involuntary exclusion.

It should be remarked that gender disparity in terms of literacy, health, livelihoods and basic human rights in Ethiopia is significant; this inequality would increase at a higher level of education (UN Women). Our data revealed that all of the female participants had an account while 1% of men were accountless. This could be related to the sampling frame; to decrease the inequality, participants were chosen based on their socio-demographic characteristics, such as the location of their residence, occupation and gender.

Hundie and Tulu (2021) tried to explain gender disparity in financial inclusion in Ethiopia through the Fairlie decomposition method. It was argued that socio-economic variables, including age, income, level of education, and employment status, explained the gender gap in financial inclusion in Ethiopia. Due to social and cultural norms, Ethiopian women faced difficulties, such as a lack of formal IDs and restricted mobility, restricting their access to financial services.

As it is evident, there exist differences in findings in terms of gender gap determinants in financial literacy and inclusion. There are various reasons for these discrepancies, such as different environments, data sources, methods of sampling, collecting data and analysis. Another example of these variances is the work of Abebe et al. (2018). They explained that SMEs in Ethiopia have many financial difficulties, such as inadequate capital to overcome credit constraints. Though many suggested that saving could be the way forward for these businesses, just a small group of micro and small entrepreneurs saved money. Nonetheless, more than 80% of our sample saved money during the last 12 months.

The other important factor, besides gender, that affects the level of financial literacy and inclusion is the location of residence, urban/rural. Living in an urban or rural area could directly affect financial knowledge and usage. Lusardi and Mitchell (2014) reviewed numerous economic studies on financial literacy to show its importance to the economy; one conclusion was that rural residents had a lower score on financial literacy than urban ones. Furthermore, after analysing the data from Global Findex, Allen et al. (2016) ascertained that the possibility of having a bank account among rural residents is lower than urban people by three points. However, there was no significant difference in the usage in terms of location. Subsequently, they reasoned that living in a rural area could increase the possibility of financial exclusion.

Based on collected data from 1400 Russians, Klapper and Panos (2011) explored the relationship between financial literacy and retirement planning. They discovered that those who live in rural have a lower level of financial literacy and are less likely to plan for their retirement. On the interest rate, 45% of urban residents chose the correct answer compared to 24% of rural residents.

Relevant to the employment status, the gender pay gap is one of the main culprits that pave the road for other social and status disparities and exclusions. A vast literature on this topic discusses different definitions of the concept and its determinant, which is out of this study's scope, yet mentioning a few essential points seems necessary. First of all, the gender pay gap is different from unequal payment. According to the UK gender pay gap website, unequal payment is when women are paid less than men for doing the same work. Unequal pay has been unlawful in the UK since 1970. Whilst gender pay gap is the average difference between the hourly wages for men and women across the workforce (UK gender pay gap site). The second is about factors contributing to the gender pay gap; education, career, and character traits influence the gender pay gap (Chevalier, 2007). Women prefer to work in the public sector, where the likelihood of discrimination is lower, yet these jobs are of low-paid nature, and there is a high penalty for time out of the labour market. The lower level of education and lack of motivation also negatively impact the wage. Chevalier (2007) argued that the prior studies just focused on career interruption and family responsibilities. Generally, it was maintained that women were either not given the opportunities to advance or paid less than men due to cultural and social barriers. Hence, their access to and usage of financial services is lower than men.

This study was designed to evaluate the gender gap regarding financial inclusion and financial literacy among the workforce in Ethiopia. Based on our data, when women are self-employed, they work better, but they are paid less than men when entering a male-dominant workplace.

Our data revealed that all of the female participants had an account while 1% of men were accountless. This could be related to the sampling frame; to decrease the inequality, participants were chosen based on their socio-demographic characteristics, such as the location of residence, occupation and gender.

8.3 Results

8.3.1 Descriptive Statistics

Regarding financial literacy and financial inclusion, the gap between men and women was very narrow, yet some important outcomes are described here and presented in Table 8.1. As mentioned above, all of the female participants had a bank account, while 1% of men were accountless. Though having a bank account is important, financial means, like regular income and covering living costs, are necessary to be included financially in a deeper sense (Findex, 2018). Both male and female participants with a comparable percentage (around 87%) had regular earnings. Nevertheless, the income level is a determinant factor in financial needs and even financial inclusion. According to Wale and Makina (2017), the possibility of having an account and using it in Sub-Saharan Africa is higher among individuals with a higher income. They also raised the issue of measuring income; the within-country income quartile might be a better way to analyse the income level and its impact on financial behaviour than the World Bank income group. They also ascertained that account ownership and saving through the account in SSA were affected by gender; this finding contradicted Allen et al. (2012) conclusion. Our data show that half of the respondents in this study earned more than 5000Birr per month, of which 52% of them were female. Yet, an increase in income would enhance women's FL score more than men's.

Table 8.1 Gender gap in FL and FI

Financial literacy score			
Gender	Maximum	Min	Mean
Women	72	18	40.6
Men	65	7	43.6
Financial Inclusion score			
Gender	Maximum	Min	Mean
Women	100	20	68
Men	100	18	70

Concerning sufficiency of income to cover living costs, the difference between males and females was only 1 point; 34% of women indicated their income covers their expenses. Gender did not have a very significant impact on financial resilience; a slightly larger proportion of women (26%) were placed in the most fragile (surviving for less than a week without income) compared to that of men (23%). It is noteworthy that the question on financial resilience on Findex was about coming up with an emergency fund equal to 1/20 of gross national income (GNI) per capita in local currency within the next month. To simplify the question, I asked participants about a period they could survive without any income. The percentage of males in the most resilient group (enduring for more than three months without any income) was 4 points more than that of women (8%). Not surprisingly, more men tracked their expenditure than women.

Due to the notable effect of mobile money on increasing financial inclusion, especially for women in developing economies (Demirguc-Kunt et al., 2018), I assessed the level of knowledge and usage of this service among the participants. According to the results, the number of male mobile money users was higher than females.

Compared to men, fewer women knew about CBE-Birr and used it.

In terms of retirement planning, more men (37%) relied on their financial and non-financial assets more in retirement planning in contrast to women (29%). One out of five women tended to rely on their family for the retirement period; that of men was one out of ten. The number of those with employment pension (public/private) was equal for men and women.

On Economic Importance of Financial literacy, Lusardi and Mitchell (2014) pointed out that women are a better target for financial training programs than men since they know their level of financial literacy is not satisfactory. In our research, the proportion of females who chose the "I don't know" option was more than men in questions like the inflation rate, compound interest and mobile banking providers.

8.3.2 Financial Literacy and Inclusion Score

After calculating the score for financial literacy, I assess the impact of socio-demographic characteristics on financial literacy score. The regression results showed that age, income, and education positively affect financial literacy (Table 8.2).

Table 8.2 OLS regression results for the impact of age, education and income on the score of financial literacy with the FL score as the dependent variable

Explanatory Variables	Beta Coefficients
Constant	27.167***
	(16.44)
Age	0.63
	(1.29)
Education	3.269***
	(8.75)
Income	1.776***
	(5.96)
N	470
R^2	0.261
Adjusted R^2	0.256
F-Statistic (d.f. 3, 466)	54.81

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

Furthermore, owners of small businesses and those in urban areas scored higher than their counterparts. The financial literacy score for the small business group, in which 52% earned more 10,000Birr, was higher than the other job categories; the mean score of financial literacy is 42.1(Table 8.3).

Table 8.3 Socio-economic characteristics and FL score

	Occupation			**Location of residence**	
Mean of FL score	Employees	Micro business	Small business	Rural	Urban
	43.5	38.22	46.01	41.08	44.32

Assessing the gender impact on financial literacy showed a 3-point gender gap; men's mean score was 3% more than women. This gap was narrower than in previous studies (Klapper and Lusardi, 2020), and women had higher maximum and minimum scores than their male peers. A detailed analysis illustrated in Figure 8.2 and Figure 8.3 shows that financial literacy among women is more affected by education and income than among men. It should be highlighted that in Figure 8.3, respondents without regular income appear on the vertical axis because of the corresponding value of zero.

To better understand the impact of gender on financial literacy's dimensions, I decomposed it into four sub-categories; knowledge, awareness, attitude, and numeracy. Regressing knowledge score over income and education showed a significant and positive relationship. Concerning the distribution of financial knowledge by individual characteristics, data made clear a correlation between financial knowledge and gender (men had higher score), location of residence (rural people presented lower knowledge), age (an inverted U-shape), and job category (small-business owners had greater knowledge). The results for assessing financial awareness and numeracy scores were comparable to financial knowledge; income and education positively affected awareness. Other characteristics such as gender, location, marital status, and occupation types presented a similar correlation, except for location in numeracy. People from rural demonstrated better numeracy skills than urban residents; plus, women from Jimma city scored higher than their male peers.

Figure 8.2 *Relationship between education, gender and financial literacy score*

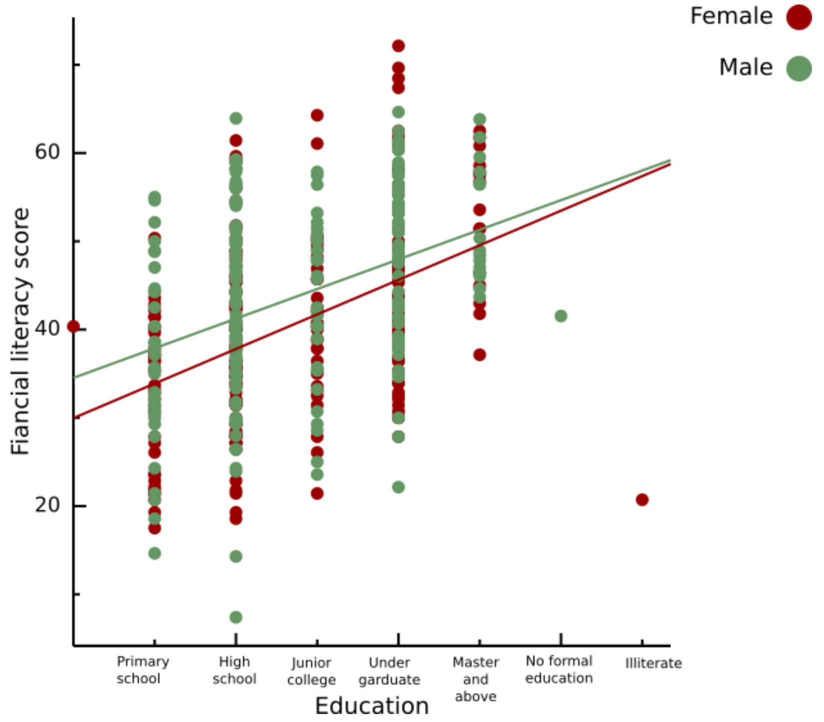
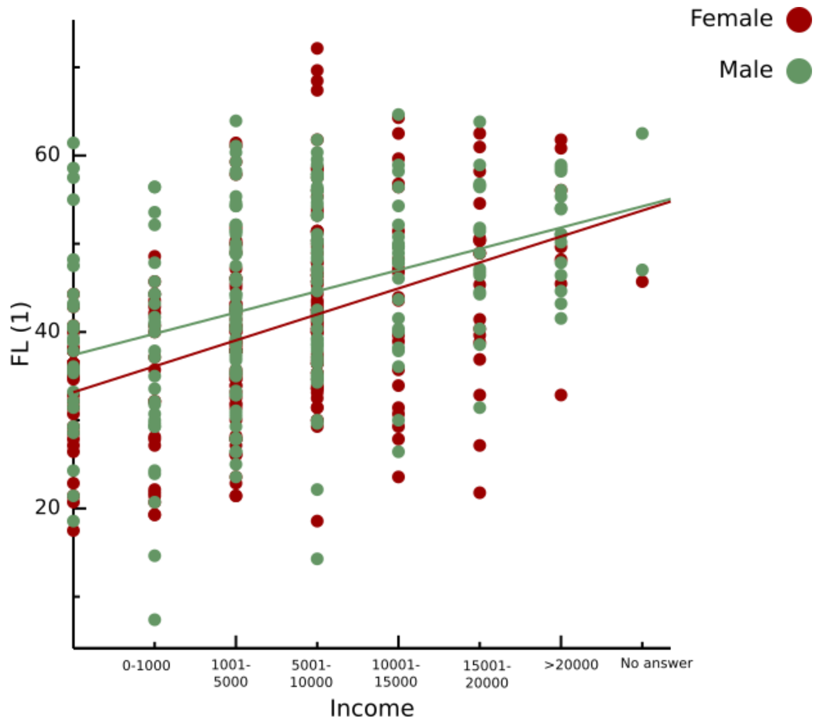


Figure 8.3 *Relationship between income, gender and financial literacy score*



On financial attitude, male participants had a lower score mean than females. Women from Jimma, running small-business, and unmarried, presented a greater financial attitude than their male counterparts. Among education and income groups, women with master's degrees or higher and those who made 10,000 to 15,000Birr scored better than others.

Table 8.4 OLS regression results for the impact of age, education and income on the score of financial inclusion with the FI score as the dependent variable

Explanatory Variables	Beta Coefficients
Constant	52.108***
	(20.90)
Age	0.64
	(0.87)
Education	2.361***
	(4.19)
Income	3.529***
	(7.85)
N	470
R^2	0.198
Adjusted R^2	0.193
F-Statistic (d.f. 3, 466)	38.48

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

Employing the regression analysis indicated that similar socio-demographic factors, like education, income, location of residents and types of occupation factors, affected financial inclusion (Table 8.4). Like Allen et al. (2016), the link between age and financial inclusion was less explicit than the other factors. Urban residents, high earners, and those mater degrees or above were included more than their peers. Small business owners were financially more included than employed and micro-business groups with a mean score of 74, yet, a larger proportion of employees scored more than 50 out of 100 (Table 8.5). Gender had its influence as well; the average score of female participants was 2 points lower than males. The global gender disparity for financial inclusion is 9%, according to Findex. Income and education influenced financial inclusion among men more than women. Removing the cultural barriers will help women to find more income sources which increase their level of financial inclusion (Sholevar and Harris, 2020).

Table 8.5 Socio-economic characteristics and FI score

	Occupation			**Rural/Urban**	
Mean of FI score	Employees	Micro business	Small business	Rural	Urban
	69.52	65.42	73.68	67.36	72.7

Exploring components of financial inclusion, namely, access, usage, and quality of financial services, exhibited a positive gender gap in the access dimension. Female participants, residents of Jimma city, singles and owners of small businesses had better access and financial means. Income had a positive and significant impact on access to financial services. As for the gender gap in usage of financial services, the mean score of men was two points more than that of women. Like access, usage of financial services was affected by the location of residence (rural people had a lower level of usage), marital status (married presented greater usage), and job category (small business owners scored higher). Moreover, age, income and education were positively correlated with the usage of financial services: an increase in age, education and income raised the use of financial services.

And the last dimension was about the quality of the provided information and services. Female participants gave a lower score to the quality of banking services than men. Participants who indicated the high quality of the banking services were married, owners of micro-businesses, and from districts. The link between education and income with the quality dimension was positive.

8.3.3 Relationship Between Components of Financial Literacy and Financial Inclusion

How do financial knowledge and awareness affect the usage of financial services?

Table 8.6 OLS regression results for the impact of the financial literacy components on the usage and access

Dependent variable: usage	
Explanatory Variables	Beta Coefficients
Constant	10.305***
	(3.01)
Knowledge	0.267***
	(4.12)
Awareness	0.871***
	(16.42)
Numeracy	0.02
	(0.60)
Attitude	0.04
	(1.11)
N	470
R^2	0.447
Adjusted R^2	0.442
F-Statistic (d.f. 4, 465)	94

Dependent variable: access	
Explanatory Variables	Beta Coefficients
Constant	51.94***
	(12.55)
Knowledge	0.1925**
	(2.45)
Awareness	0.1827***
	-2.85
Numeracy	0.06
	(1.52)
Attitude	0.130***
	(3.07)
N	470
R^2	0.0802
Adjusted R^2	0.0723
F-Statistic (d.f. 4, 465)	10.14

**p<0.1, **p<0.05, ***p<0.01 and the value shown in the parentheses are t values*

Owning a bank account was considered an indicator of financial inclusion for a long time (Beck et al., 2007), yet, the presence of the dummy accounts put it under scrutiny. In the state of financially included, the bank account should be used regularly (Grohmann and Menkhoff, 2020). Since more than 99% of the sample has a bank account, I will focus on the usage of financial services and their drivers. Still, financial literacy components positively affected the access dimension of financial literacy, though these factors explained only 8% of the changes in access. Regression analysis is listed in Table 8.6 which displays a positive correlation between financial knowledge and awareness, attitude, and numeracy with the usage; the impact of financial knowledge and awareness was significant with a p-value <0.05.

Analysing the impact of socio-demographic traits on the financial literacy components (Table 8.7) showed that male owners of the small businesses had the highest score for knowledge, awareness, and attitude.

Table 8.8 reports demographic characteristics and usage of financial services. On access, women from Jimma city had the highest score, while the top score for the usage of financial services belonged to the male owners of the small businesses. Furthermore, the male owners of the small businesses gave the highest rate to the quality of the provided information and services.

Table 8.7 Gender and demographic characteristics and financial literacy scores

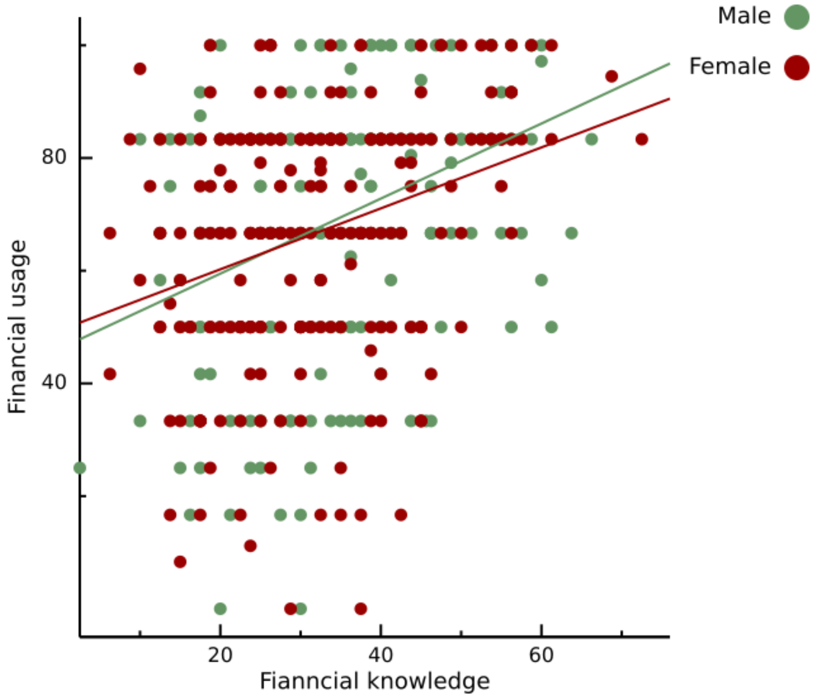
Knowledge score for various demographic groups			
	Groups	Male	Female
Location	Jimma city	35.9	36.3
	Districts	35.1	29.9
Job category	Employees	36.5	35.3
	Micro business owners	31.1	27.8
	Small business owners	38.7	35.8
Marital status	Single	33.9	30.4
	Married	36.1	34.4
Awareness score for various demographic groups			
Urban/Rural	Urban	56.9	55
	Rural	54	48.9
Job category	Employees	55.4	52.4
	Micro business owners	50.5	47.8
	Small business owners	58.9	55
Marital status	Single	52.7	50.1
	Married	56	51.3
Numeracy score for various demographic groups			
Urban/Rural	Urban	40.8	39.7
	Rural	46.6	41.7
Job category	Employees	43	42.6
	Micro business owners	45.6	40.1
	Small business owners	46.1	40.9
Marital status	Single	41.9	43.5
	Married	46.5	25.8
Attitude score for various demographic groups			
Urban/Rural	Urban	43.5	48.1
	Rural	47.7	47.8
Job category	Employees	45.7	46.8
	Micro business owners	44.6	47.7
	Small business owners	49.1	49.6
Marital status	Single	44.4	47.4
	Married	47.5	22.3

Table 8.8 Gender and demographic characteristics and financial inclusion scores

Access score for various demographic groups			
Groups	Groups	Male	Female
Urban/Rural	Urban	82.3	83.7
	Rural	74.7	73.1
Job category	Employees	75.9	77.4
	Micro business owners	74.5	73.3
	Small business owners	80.8	82
Marital status	Single	76	78.2
	Married	77.5	76
Usage score for various demographic groups			
Urban/Rural	Urban	72.6	72.4
	Rural	68.3	63.8
Job category	Employees	70.4	69.3
	Micro business owners	63.8	61.2
	Small business owners	74.8	73.7
Marital status	Single	67.5	61.6
	Married	70.7	68.8
Quality score for various demographic groups			
Urban/Rural	Urban	61.1	54.9
	Rural	61.2	61.3
Job category	Employees	56.6	58.9
	Micro business owners	61.5	62.5
	Small business owners	65.7	53.1
Marital status	Single	63.1	58.6
	Married	60.2	59.4

I also tried to illustrate the relationship between financial knowledge and usage among male and female respondents. As Figure 8.4 depicts, increasing financial knowledge influences usage for men more than women; in the lower level of financial literacy, women used services more frequently than men.

Figure 8.4 *The relationship between financial knowledge and usage*



8.3.4 Gender and FL and FI Scores

The average score of the sample for financial literacy was 42.1, and the gender gap was insignificant; men had an average of 1.2 points more than women. Among those women with financial literacy higher than average, only one-fourth made less than 10,000Birr, and around half of them had an undergraduate degree or above. More than half of these female participants were the decision-makers in the family. The majority were married and aged over 30. This group of respondents had an average financial score of 77.18, with 45 and 100 as the minimum and maximum scores.

Overall, the impact of gender on the mean score of financial literacy and inclusion was not significant, which could be related to the socio-demographic structure of the sample (Table 8.9).

Table 8.9 Profile of female respondents with FL score higher than 42.1 (%)

Profile of female respondents with above average (42.1%) FL scores		
Job category		% of group
	Employees	38.3
	Micro business owners	28.8
	Small business owners	33
Age		
	18-19	3.19
	20-29	36.17
	30-39	45.74
	40-49	13.83
	50-59	1.06
	60-69	0
Rural/Urban		
	Urban	44.7
	Rural	55.3
Marital status		
	Single	24.5
	Married	75.5
Income		
	0-1,000	5.32
	1,001-5,000	20.21
	5,001-10,000	41.49
	10,001-15,000	12.77
	15,001-20,000	10.64
	>20,000	6.38
	No answer	3.19
Education		
	No formal education	0
	Primary and secondary	3.19
	High school	30.85
	Junior college	15.96
	Undergraduate	36.17
	Masters degree/above	13.83

8.4 Conclusion

Society's structural attributes could impact women's financial literacy and inclusion. In countries that practise egalitarianism (socialist nations), the social gender gap was narrow, and the difference between financial literacy scores among men and women was insignificant (Bucher-Koenen et al., 2017). Furthermore, Rivero (2022) noted that social and economic exclusion have a more pronounced impact on financial inclusion than lack of financial literacy. Our study aligns these findings and reveals that social status has an essential role in financial literacy and inclusion.

Table 8.10 Summary of score for FL, FI, and their components

	Summary of scores				
	Gender	Mean	Std. Dev.	Min	Max
Financial literacy score	Men	43.6	10.7	7	65
	Women	40.6	10.8	18	72
Financial Inclusion score	Men	70.1	15.9	18	100
	Women	68.0	15.6	20	100
Financial Knowledge score	Men	35.4	12.6	3	66
	Women	32.0	12.6	6	73
Financial Awareness score	Men	54.9	15.0	10	86
	Women	50.9	15.4	14	86
Financial Numeracy score	Men	44.9	22.5	0	100
	Women	41.1	25.8	0	100
Financial Attitude score	Men	46.4	23.0	0	100
	Women	47.9	21.8	0	100
Financial Access score	Men	77.0	21.1	33	100
	Women	76.6	20.8	33	100
Financial Usage score	Men	69.6	22.4	0	100
	Women	66.7	22.2	0	100
Financial Quality score	Men	61.2	27.1	0	100
	Women	59.1	28.2	0	100

For this study, I chose women who were part of the labour force and had a steady source of income. On financial literacy score, most women who scored higher than average had a good social status, made good money, had a good education degree, and were family decision-makers. There was evidence that the gender gap in financial literacy is not intrinsic but extrinsic due to the social inclusion of women (Table 8.10).

Chapter 9. Triangle of Trust, Financial Literacy and Financial Inclusion: Evidence from Ethiopia

9.1 Introduction

Financial inclusion is a two-tier challenge, pushing the formal financial sector to provide easy access to a wide range of formal financial services for the low-income groups and enhancing the financial literacy among the low earners. Furthermore, many scholars explained that financial literacy and inclusion are related to trust (Hansen, 2012; Cruciani and Rigoni, 2017; van der Cruijsen and Jonker, 2019, 2021; Ennew & Sekhon, 2007; Soumare et al., 2016). Another strand of literature argues about the complementary relationship between these concepts. Cruciani and Rigoni (2017) claimed that providing financial information and trust are complementary and increase market participation; hence, financial literacy and financial inclusion are linked with trust as an intermediate. They even regarded trust as one of the essential elements in the financial service providers.

There is extensive literature on financial literacy, inclusion and trust, yet, the importance of the link between these concepts has been overlooked. This work investigates the relationship between trust, financial literacy and inclusion in the context of a developing country. This work contributes to the literature in two ways. First, it provides a comprehensive literature review on the relationship between relevant concepts; financial literacy, inclusion and trust, and the current status of Ethiopia. Our second and main contribution is empirically assessing the link between these concepts by employing regression and hypothesis tests. The target population is employees and small/micro business owners from Jimma Zone, the most populated zone in Ethiopia.

The rest of the work is organised as follows. Section two presents the theoretical framework for the relationship between financial literacy, inclusion, and trust. Then, the current status of financial inclusion, literacy and trust in Ethiopia will be discussed.

Section three will explain the results, and the final section draws conclusions.

9.2 Conceptual Background

9.2.1 Trust and Financial Inclusion

Trust is pervasive in the finance world, where services and products are not tangible and difficult to evaluate. Furthermore, with the high level of perceived risk in the finance sector, the trust could act as a mediator to ease these strains and advance the adoption of financial services (Ennew & Sekhon, 2007). It could also enhance the process of seeking financial advice and delegating the task of making financial decisions in the case of complex products and services (Roy et al., 2020).

Existing literature illustrated that trust in the bank could improve access to financial services and, consequently, enhance financial inclusion. Additionally, distrust could weaken savings and economic growth. The fact that trust in financial institutions would increase the level of access to formal financial services was affirmed by Soumare et al. (2016). These researchers worked on the determinants of financial inclusion in Central and West Africa. They found that the characteristics of individuals, such as degree of trust in financial institutions, age, gender, education and income level, influence access to formal finance. By analysing the Global Financial Inclusion Database (Global Findex) of the World Bank, they revealed that in each region, ECOWAS (the Economic Community of the West African States) and ECCAS (Economic Community of Central African States), the impact of these factors would be different. They remarked that trust negatively affects bank account usage in Central Africa but not in West Africa.

In the second volume of Handbook of Blockchain, Digital Finance, and Inclusion, lack of trust was identified as one of the barriers which discourage the consumer from getting engaged with formal financial services (Sapovadia, 2018). Sapovadia (2018) highlighted the importance of digital currency and mobile money in promoting financial inclusion across developing countries. It was suggested that trustworthy financial organisations would boost the uptake of financial services; users' trust was marked as one of the solutions to reduce exclusion. Oliveira et al. (2014) also confirmed that initial trust has a notable effect on the behavioural intention to adopt mobile banking.

In developing countries such as Ethiopia, with the majority of people living in rural areas, remote banking and digital financial services could improve access and usage of financial services and enhance inclusiveness, especially for vulnerable groups. In northern Kenya, the BOMA project assists poor women by increasing their access to financial services through digital finance. The uptake and usage of digital financial services were threatened by various factors, including a lack of trust in unfamiliar tools (Tiwari et al., 2019). Plus, it should be noticed that the reputation of the service providers should be intact to be trusted in the services that it provides to the community.

The relevance of trust in the finance sector, particularly in digital finance and payment system, rises if I consider crises, such as the COVID-19 pandemic; both narrow scope trust and broad scope trust were affected by the COVID-19 pandemic (Bijlsma et al., 2021). By analysing the daily payment diary data, Bijlsma et al. (2021) revealed that financial literacy, mainly digital literacy, could increase trust (both narrow and broad scope trust). Trust in their own bank payment system and trust in the bank payment system were reduced during the pandemic. They also illustrated that digital literacy is the main factor in building trust. Trust and financial literacy play a critical role in adopting Central Bank Digital Currency (CBDC) (Bijlsma et al., 2021). Once more, the relevance of financial literacy and trust in financial inclusion has been proved; digital currency helps raise the uptake of financial services and enhances inclusiveness, and trust and financial literacy are key actors in adopting the digital currency.

It seems that trust or lack of trust is a crucial factor in raising the uptake and usage of financial services that, in return, would enhance financial inclusion. Among various types of trust (trust in their own banks, trust in the bank in general, trust in the central bank and trust in people), narrow scope trust and generalised trust had a positive relation to adopting the CBDC. Financial literacy positively influenced the adoption and usage of CBDC saving accounts (Bijlsma et al., 2021).

Mavilia and Pisani (2020) discussed the possibility of reducing financial exclusion by employing blockchain technology in African countries. In the blockchain, secure and transparent transactions would build trust; the immutable activity ledger of the blockchain makes transactions more transparent. Mavilia and Pisani (2020) suggested that in using blockchain technology, especially for remittance, a trust relationship with third parties is unnecessary. Various programs aiming to reduce financial exclusion have been launched in Some African countries. South African Reserve Bank started the Khokha Programme in 2018, a program to support the financial system in Africa. Tunisian Post Office introduced E-Dinar in 2015, which used a mobile network for its payment system. In Ghana, Bitland was used by NGOs to facilitate land management procedures. The blockchain solution was employed in the Johannesburg Stock Exchange to manage the bond issue procedures. Another example is Bitpesa which was adopted for reducing the cost of remittance.

9.2.2 Trust and Financial Literacy

The literature on financial literacy and trust is not developed properly; there are limited studies about trust and its relationship with financial literacy. Most of these studies found a significant and positive relationship between financial literacy and trust (Hansen, 2012; Cruciani and Rigoni, 2017; van der Cruijsen and Jonker, 2019, 2021; Letamendia and Poher, 2020).

In their discussion paper on the relevance of trust to the financial sector, Ring (2005) remarked that due to the information asymmetric and increasing complexity of financial services, the issue of trust has become important to customers. Trust in the financial system serves as a means to overcome the shortcoming of financial literacy in the world of sophisticated financial services. For example, not all investors can assess complicated investment options; seeking advice from a professional financial advisor could help the households choose wiser.

Burke and Hung (2021) maintained that the rate of financial advice seeking among Americans is low and tried to find who inquires about financial advice. According to prior studies, financial literacy and trust are two important factors influencing financial advice seeking. By analysing the data drawn from the RAND American Life Panel (ALP), Burke and Hung (2021) found that demand for and usage of financial advice could be enhanced in the presence of financial trust; lack of trust could reduce the likelihood of seeking financial advice. Furthermore, there is a positive but insignificant association between trust and financial literacy.

Hansen (2012) assessed the link between financial literacy and trust in Danish banks and mortgage companies. It appeared that financial knowledge positively affects both broad-scope trust and narrow-scope trust. The mechanism behind this positive link could be related to the fact that savvy customers have a better understanding of financial services and the behaviour of the financial services providers, which could improve their trust in these financial institutions. Nevertheless, this understanding and awareness could have a negative impact as well; a financially knowledgeable person could see the system's shortcomings more evident, which in return could decrease their trust in the system (Letamendia and Poher, 2020; Ampudia and Palligkinis, 2018). On the other hand, as marked by Kersting et al. (2015), a low level of financial literacy would keep individuals from understanding how the financial system works; this lack of awareness could cause mistrust and hesitation.

Ricci and Caratelli (2017) contributed to this strand of literature by investigating the concurrent effect of financial literacy and trust in retirement planning. The data source was the 2010 Bank of Italy Survey on Household Income and Wealth. It was reported that trust and financial knowledge positively affect planning for retirement. Koh et al. (2021) made the same remark; they assessed the relationship between trust, financial literacy and retirement planning in Singapore. They explained that there is a positive correlation between financial literacy and trust. Financially savvy individuals exhibited a higher level of trust in the financial sector by participating in the stock market and purchasing life insurance. They also reported that financially literate individuals are less likely to trust insurance agents, bank advisors, and non-bank advisors.

Similarly, van der Cruijsen et al. (2021), by regressing 14 years of data on Dutch consumers' trust in financial institutions, showed that a high level of financial literacy could increase the possibility of trust in financial institutions, including banks, insurance companies and pension funds (broad scope trust). This applies to the narrow-scope trust; financially literate people were more likely to trust their own banks. In contrast to Koh et al. (2021), their results showed a positive relationship between trusting the financial sector and trust in the supervisory authority. They also noticed that trust and socio-demographic variables are related to gender, income, age and employment status.

While designing the trust questionnaire, I considered the difference between narrow-scope and wide-scope trust; participants were asked about their trust in the banking system, their bank, financial advisors, and even banks from other regions. The question on trusting banks from the other areas was designed to assess the effect of ethnic diversity on trust. While some researchers suggested that broad-scope trust would positively influence narrow-scope trust (Hansen, 2012), others believed the causality direction is the other way around (van Esterik-Plasmeijer and van Raaij, 2017).

9.2.3 Financial Inclusion in Ethiopia

The primary purpose of financial inclusion is to provide access to financial services for all members of the economy (Sarma, 2008; Sarma and Pais, 2011). However, in developing countries, a significant share of the money transfer happens through informal channels, including family members, friends, and local money launderers. Sarma (2008) emphasised the formal financial system and suggested the informal economy could be harmful and exploitative. In Ethiopia, the formal financial system is composed of commercial banks, the National Bank of Ethiopia (NBE), Development Bank of Ethiopia (DBE), credit and saving cooperative, insurance companies and microfinance institutions (National Bank of Ethiopia. 2019/20). Numerous studies in Ethiopia revealed that the economy suffers from an immature financial system; also, financial inclusion is low relative to other countries in Sub-Saharan Africa. Zwedu (2014) prepared a 60-page report on the link between Ethiopia's financial inclusion, regulation, and inclusive growth. At the time of preparing the report, the formal financial sector in Ethiopia was composed of 3 public and 16 private banks, one public and 14 private insurance companies, and 31 microfinance institutions. Ethiopia's finance system was highly regulated; therefore, there was no foreign competition. Though the situation was improved compared to previous years, the author argued that a significant part of the expansion happened in the capital; considering the size of the population, the finance sector is still undeveloped. Additionally, fintech and innovative services were scarce because of inadequate infrastructure, and tight regulations discouraged more banks from joining the finance network. In the end, the author suggested a few solutions, including; i)the infrastructure has to improve, ii)the innovative mechanism should be part of the system, and iii)the system should open its door to foreigners.

In their annual report of 2019/20, the National Bank of Ethiopia stated that the finance sector had increased its physical points of access by expanding the number of banks and branches; there are 16 public and two private banks. Also, insurance could be purchased from 17 private and one public company. In the same paragraph, the number of microfinance institutions reached 41, with 11 public, 13 private and 17 NGOs. With increasing the number of banks and branches, the number of bank branches to population ratio was 1:15720 at the end of 2019/20. These reforms were the results of the National Financial Inclusion Strategy in Ethiopia, aiming to reduce financial exclusion through the following steps; 1) strengthen financial infrastructure, 2) increase the supply and range of proper financial services and products, 3) establish a solid financial consumer protection framework, 4) enhance the level of financial capability (NFIS, 2017).

The informal financial system in Ethiopia is called "Iqub" and "Edir/Mahiber", which is the traditional system, and Ethiopians are so proud of it. Berhanu and Azadi (2021) showed that people in Ethiopia prefer to use informal finance instead of formal one since the formal financial system is underdeveloped. They also explained that the amount of savings is different based on income level. The Iqub money could be used for various occasions like weddings, funerals, sicknesses, etc. In our study, a higher number of participants chose to use banking services for saving.

According to the World Bank survey (Findex, 2017), only 35% of adults in Ethiopia have accounts in the formal financial sector. Global Findex (2017) surveyed 150,000 randomly selected and nationally representative individuals above fifteen in 148 countries. The participants were asked about managing their day-to-day finances, their future financial plans, and access and usage of formal and informal financial services. Moreover, the socio-demographic characteristics of the participants were also provided.

Numerous factors influence the level of financial inclusion, for instance, income, inequality, literacy, urbanisation and physical infrastructure (Sarma and Pais, 2011). FinAccess in 2009 reported that in Kenya, income-related issues, such as lack of income, irregular income, and lack of financial means to pay for financial services, would increase the possibility of financial exclusion. Other factors like lack of proper documentation, illiteracy, and location of the financial institution would limit access to financial services, which negatively affects the level of financial inclusion (FinAccess, 2013).

In another report, by the South African Institute of International Affairs (SAIIA), on the level of financial inclusion in Africa and its importance for the development in the African rural areas, it appeared that the informal economy operates on a broader scope than the formal one (Oji, 2015). In addition to developing the physical infrastructure, Oji (2015) suggested that one way to lessen financial exclusion and motivate individuals to be part of the formal financial system is to enhance their level of financial literacy. The author believed in the African rural areas, the low level of financial literacy caused people to be exposed to informal finance and consequently suffer from the financial crisis. Hence, programs that aim to promote financial literacy should be supported by the African governments in order to increase financial inclusion and achieve sustainable development.

In Ethiopia, Abdu and Adem (2021) surveyed three hundred and eighty-four households from the Afar region. They applied binary logistic regression, and the results revealed that almost 70% of their sample was financially excluded. They also recorded that lack of trust in the financial sector, lack of awareness and financial literacy, low literacy level, gender, age and income would impede access to financial services. Age and level of literacy were positively affecting the level of inclusion, yet the income and level of financial inclusion had a negative relation. They explained that if the household's income increased by one unit, the likelihood of being financially included would decrease by 0.06. Their results on factors determining the level of inclusion were similar to those of Timbula et al. (2019), except for income.

According to Timbula et al. (2019), there is a positive correlation between income level, formal education, age, and financial literacy. Their sample was composed of 173 households, and the probit model was applied to analyse the collected data. Some scholars argued that income level positively influences account ownership on the relationship between income level and financial inclusion. Mavilia and Pisani (2020) showed that a rise in income would increase the average percentage of the account holders, notably in countries like Ethiopia, where the number of accountholders is low.

In measuring financial inclusion in Ethiopia, Desalegn and Yemataw (2017) followed Allen et al. (2012) approach and focused on three dimensions of financial inclusion; account ownership, saving, and use of financial products and services, such as mobile banking, ATM, internet banking, and agent banking. They explored the low level of financial inclusion in Africa, particularly Ethiopia. Their data source was the World Bank's 2016 Ethiopian Socioeconomic Survey (ESS) panel data. More than a thousand individual adults were selected, which represented 4958 households. The data revealed that not all of the financially excluded individuals were forced to do so; some of them voluntarily chose to be excluded. Also, the gender gap in account ownership in Ethiopia was broader than that of the globe, and women used financial services and products less than men.

It should be noted that gender disparity in terms of literacy, health, livelihoods and basic human rights in Ethiopia is significant; this inequality would increase at a higher level of education (UN Women). Our data revealed that all of the female participants had an account while 1% of men were accountless. This could be related to the sampling frame; to decrease the inequality, participants were chosen based on their socio-demographic characteristics, such as the location of residence, occupation and gender. Desalegn and Yemataw (2017) concluded that the level of financial inclusion in Ethiopia was lower than that of Sub-Saharan Africa, and the Oromo region had the lowest level in Ethiopia. Literacy, gender, location of residence, and financial capability would affect both voluntary and involuntary exclusion. Contrasting the work of Abdu and Adem (2021), it was suggested that older people were less likely to be included. They were surprised that rural residents used their saving accounts more than urban ones, and financially capable people were less likely to be included. They also noticed that Muslims were less financially included than Christians.

In another study, Baza and Rao (2017) assessed the demand and supply sides of financial inclusion in Ethiopia. They explained that financial inclusion in Ethiopia is lower than that of other low-income countries due to its underdeveloped financial sector. Another issue discussed in their work was financial inclusion indicators; they believed having an account is not proper to measure financial inclusion. Having an account in a financial institution might change the well-being of the household only if they use it regularly. The demand-side data were about the access and usage of financial services.

In contrast, the supply-side data were collected from the National Bank of Ethiopia and other Ethiopian financial institutions. They deduced that access to and usage of financial services and products had been blocked due to physical, financial and bureaucratic barriers. Plus, socio-economic factors like age, income, gender, and location impacted the level of inclusion; access to financial services was more challenging for younger adults, women, rural, and low-earners. They suggested that the expansion of mobile banking and the use of biometric devices could decrease the cost and improve the access and usage of financial services. To implement this recommendation, infrastructure connectivity should be enhanced, and the internet and mobile phone penetration rate have to increase to reduce financial exclusion. Mobile phones and the internet have a notable impact on improving financial inclusion, particularly in poor African countries. M-Pesa in Kenya is an excellent example of this relation between mobile phones and the internet with financial inclusion.

In the same line, a researcher from Pan-Atlantic University posed a question on the impact of mobile phones and the internet on financial inclusion at the macro-level and the causality direction. The dataset that Evans (2018) used was the World Bank panel of 44 African countries, including Ethiopia, from 2000 to 2016. They applied the fully modified least-squares approach and Granger causality tests for analysing the data. According to them, mobile phones and the internet influenced financial inclusion in Africa; if the penetration rate of mobile phones and the internet grew, the level of financial inclusion would also increase. As discussed, mobile money could be a good example of how mobile phones and the internet could improve access to and usage of financial services. As a result, financial inclusion could be increased too. Yet, in designing mobile money frameworks, addressing the customers' financial needs is necessary. Nonetheless, the role of trust should not be overlooked, as Bongomin and

Ntayi (2019) provided evidence that trust would promote the adoption and usage of mobile money among MSMEs.

According to Mesfin et al. (2013), prior research on mobile money mainly was focused on the design of systems, adoption and adaptation, and impact assessment; just one group of researchers assessed the financial needs of the population. Besides, the main target of these studies was urban people. Therefore, Mesfin et al. (2013) thoroughly studied the monetary practice among the rural population who transact in the open-air market. They found that a desirable machine (tool) should protect the money in case of theft or loss, calculate profit and loss, and be easy to work with, even for illiterate people. Based on these criteria, near-field communication (NFC) based mobile payments could be a proper method to meet the customers' needs. But, utilising this method in rural areas of Ethiopia required government intervention to create and enhance the infrastructure's connectivity.

It was mentioned that the Ethiopian government initiated the National Financial Inclusion Strategy in 2014, and various parts of the system took action to overcome financial exclusion at the national level. Yet, the question was how this strategy would be beneficial to people. In "Financial inclusion in Ethiopia: is it on the right track ", Berhanu and Azadi (2021) investigated Ethiopia's financial inclusion success compared to other economies in East Africa. The work of other researchers in this field was reviewed to examine issues including the gender gap, barriers to financial inclusion, market entry obstacles, and increasing the usage of formal financial services. This work gathered the results of various studies in Africa, mainly from 2010, to examine whether the government's financial inclusion strategy met the target; they deduced that this plan was not as triumphant as those of the neighbour countries. Noteworthy, different parts of the economy and their importance should be taken into account while designing such strategies and plans.

In developing countries where the government aims to speed up economic growth, SMEs play a crucial role in achieving this goal by alleviating unemployment, increasing the competition in the market, and promoting innovation (Abebe, 2018; OECD, 2017). Hence, facilitating access to financial services, such as credit and loans for small and medium enterprises, is of utmost importance. Oshora et al. (2021)

concentrated on factors that influence the financial inclusion of small-medium enterprises in Ethiopia. For data, 384 business owners in Addis Ababa were surveyed, and existing studies were reviewed; multiple linear regression was applied to analyse data. The outcomes indicated that demand and supply-side factors and collateral requirements positively affect access to finance; market opportunity and finance move in the same direction. Abebe et al. (2018) explained that SMEs in Ethiopia have many financial difficulties, such as inadequate capital to overcome credit constraints; saving could be the way forward for these businesses, yet a small group of micro and small entrepreneurs saved money.

Nonetheless, more than 80% of our sample saved money during the last 12 months. Abebe et al. (2018) surveyed 508 micro and small enterprises from Addis Ababa and offered four hours of financial literacy training. A group of these business owners were selected to receive regular SMS reminders for three months as well. In their research, lack of financial literacy and attention were the main reasons for undersaving. Financial training and regular SMS reminder increased their level of financial literacy and improved their saving behaviour. The results showed that financial training alone is not as practical as when coupled with SMS reminders. However, lack of financial literacy often is the principal cause of poor financial decisions, which leads to underinvestment. Abebe et al. (2018) believed this vicious circle would keep micro-entrepreneurs in the low-knowledge trap.

In order to promote financial inclusiveness, the role of financial literacy should be examined as it arguably represents the demand side of financial inclusion. A raise in financial awareness could increase demand for and usage of financial services and products.

9.2.4 Financial Literacy in Ethiopia

Ethiopia is one of the fastest-growing economies globally; though affected by COVID-19, its growth continues. It has been argued that sustainable economic growth could be delivered through savvy financial behaviour (Lusardi and Mitchell, 2014; Jang et al., 2014).

In Ethiopia, the importance of financial literacy has been not acknowledged yet, and the number of studies in this field is limited. One of these studies was about the relationship between financial literacy and transaction cost with the usage of formal financial services, such as saving accounts. Hieltjes and Petrova (2013) chose employees of the Sher Ethiopia flower farm located in Ziway and undertook randomised control trial (RCT). In total, 3578 workers with different demographic backgrounds participated in this study; only 2684 questionnaires were valid to be used throughout the analysis. The study group received two treatments; short financial literacy training and decreasing the costs of opening a saving bank account. The training was comprised of budgeting and saving along with an awareness speech. It appeared that reducing the transaction cost increased the demand for the bank account and usage, whilst they did not find any positive relationship between financial literacy and financial inclusion.

Contrasting to the results of Hieltjes and Petrova (2013), Refera et al. (2018) suggested that financial literacy positively impacted financial behaviour. Their target population was urban residents of Addis Ababa, the capital city of Ethiopia; 402 adults were interviewed to collect relevant data on their level of financial literacy, socio-economic and demographic characteristics, and personal finance. Financial knowledge, financial attitude and confidences in personal financial decision-making were three dimensions of financial literacy measured in this study. The outcomes of four-stage hierarchical multiple regression revealed that confidence in financial decision-making and financial attitude improved financial management behaviour, including money management, financial planning, and debt management. Notwithstanding, the results did not indicate that financial knowledge could influence financial behaviour.

The relationship between financial inclusion, financial literacy and inclusive growth was the subject of Nyarko's work. They used the Global Findex database (2014) and Standard & Poor's Ratings Services Global Financial Literacy Survey (S&P, 2014) as data sources for assessing financial inclusion and financial literacy, respectively. They constructed a financial inclusion index by using two dimensions of access and usage of financial services for thirty-seven African countries; Ethiopia was at the bottom of the list. According to them, financial literacy negatively correlates with income poverty; a higher income level would decrease income poverty. Financially illiterate individuals would face difficulty managing their personal finance, particularly debt management and money management. It was also stated that greater inclusive growth would enhance financial literacy; for instance, increasing employment would raise financial literacy. More importantly, they confirmed that financial literacy positively impacts financial inclusion.

The most recent research done by Elifneh (2021) measured financial literacy among high school students. A survey was designed based on Lusardi and Mitchell's work, and more than 700 students from Addis Ababa participated in this study. The results suggested that the majority of the respondents lack basic financial knowledge, including inflation, interest compound, money illusion, and time value of the money.

To recap, the level of financial literacy and financial inclusion in Ethiopia is below the world average, and relevant field studies which shed light on the current state are limited. In addition, rapid economic growth, political and social transformations, fintech, and expansion of the banking system changed both the demand and supply side of Ethiopia's financial sector. All of these factors have an effect on trust in the finance sector. Hence, a thorough investigation and a tailored instrument are required to read the status quo and understand the entangled relationship between elements of financial literacy, financial inclusion, and trust.

9.2.5 Trust in Ethiopia

Trust, as one of the central cultural values, plays a vital role in economic development. Zwedu (2014) believed the financial sector should be regulated to build trust in consumers; in other words, they should be trustworthy to increase the level of usage of financial services. In this regard, the national bank of Ethiopia regulated private banks to increase their level of credibility.

In Ethiopia, where the banking system focuses on expanding physical branches, electronic banking has been given little credit for reducing financial exclusion. In a study on strategies to improve electronic banking, Gebreslassie (2017) interviewed twelve bank managers to explore and concluded that lack of trust is one of the factors which could block the adoption of novel services such as electronic banking. Also, it was implied that trust could be seen as an invaluable means to introduce electronic banking to existing and new customers. Creating accessibility through electronic banking could positively alter the current situation of the unbanked population in Ethiopia.

Zwedu (2014) mentioned that depositors would have more confidence in banks with strong capital on the determinants of trust. Abay et al. (2017) observed similar results; in rural areas of Ethiopia, people found larger financial cooperatives more trustworthy. Customers' trust would increase the monthly saving rate, enabling the rural financial cooperatives (RFCs) to mobilise their domestic savings. Based on this observation, it was suggested that saving requires trust, which could be obtained through social relationships. These RFCs are more likely to buy other financial services such as credit life insurance. Raised savings would enhance investment opportunities and, in turn, would play a role in financial inclusiveness and growth.

In the same paragraph, Algan and Cahuc (2013) regressed the income per capita and trust level in 106 countries, including Ethiopia. It seemed that a higher level of trust was observed in countries with a higher level of income; Ethiopia, where the average income per capita was low, displayed a lower level of trust. In addition, residents of ethically diverse communities like Ethiopia have a lower level of trust due to the heterogeneity of preferences. The data for average income per capita (1980-2009) were taken from Penn World; the trust dataset was obtained from the five waves of the World Values Survey (1981–2008), the four waves of the European Values Survey (1981–2008), and the third wave of the Afro-barometer (2005). Such a large dataset and thorough analysis would perish any doubts about results. But, Gundelach (2013) had a different opinion regarding ethnic diversity and trust; they stated that the correlation between these two is positive. The data source was the fourth wave of the World Values Survey (WVS, 2005-2008); 47 countries, including Ethiopia, were picked to study. The author scrutinised the standard measure of generalised trust and argued that it is much less generalised than assumed.

However, Berhanu Lakew and Azadi (2020) declared that lack of trust in formal financial institutions is the least important reason for not having a bank account in Ethiopia.

The high level of general trust significantly influences economic growth and well-being (Knack and Keefer, 1997); therefore, it could be concluded that trusting the finance sector would enhance financial inclusiveness. The previous studies confirmed that trust in financial institutions and generalised trust would influence some financial decisions directly (Ricci and Caratelli, 2017). For instance, Agnew et al. (2012) showed that trust in financial institutions positively affects plan participation in automatic pension enrolment. No study specifically assessed the relationship between trust and financial inclusion in Ethiopia, to the author's knowledge.

In the following section, I will investigate the relationship between financial literacy, financial inclusion and trust.

9.3 Results

9.3.1 Descriptive Statistics

If we consider the method of sampling, respondents were selected based on the three criteria; location of residence, gender, and types of occupation. Hence, evaluating the participants' responses in each group and comparing them with each other could shed light on the impact of these categories on the level of financial literacy, inclusion and trust.

Job Categories

Among employees, owners of the small and micro businesses, a larger group of small businesses had a bank account, while 1% of employees were accountless. A larger group of this category had an expense log, made enough to cover their living costs, bought insurance, exhibited good numeracy skills, and were among top earners. Small business owners used financial services more than the other job categories, services like saving and money transfer. Plus, many small businesses found ATMs and E-banking trustworthy; mobile money had more users among them than the others. On the other hand, a smaller group of micro-businesses knew and used various financial services, though most of them found the banking system trustworthy. Saving money for retirement, credit cards, mortgages, and mobile money was more prevalent among employees. Moreover, the majority had a regular income and knew about inflation. Considering the results above, it is fair to say that occupation and income level play essential roles in financial literacy and financial inclusion.

Location of the Residence

Among rural and urban residents, a bigger group of respondents from urban areas knew about financial services and frequently used them. While more people from Jimma city trusted ATMs, E-banking and mobile money, using M-Birr (Mobile money) was more common in rural areas. The type of bank (private or state-owned) was more important for rural participants than urban residents; they believed the state-owned banks were more trustworthy compared to private banks.

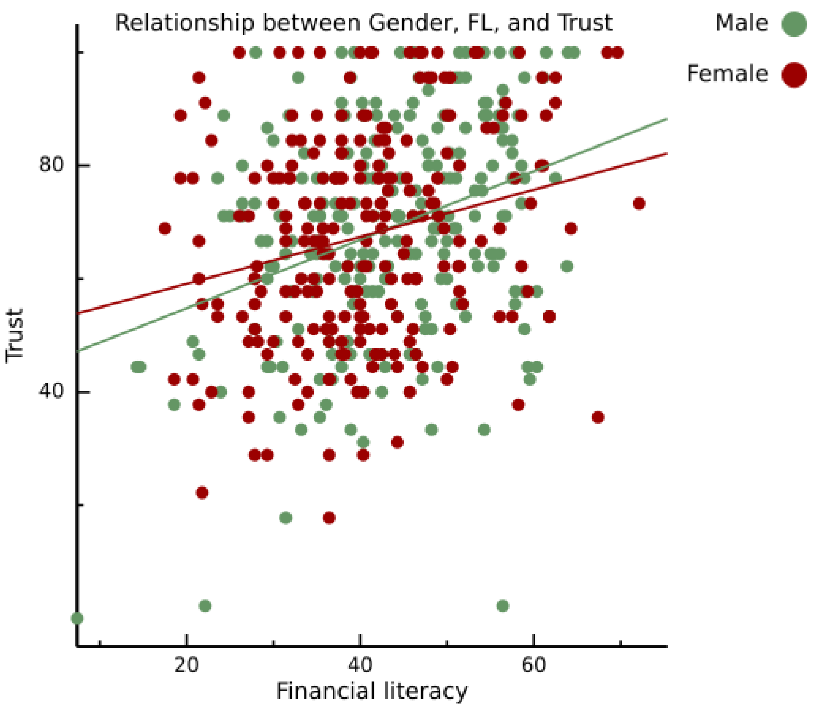
Gender

A more significant proportion of men had a steady income, could cover their living expenses, and kept a record of their costs. Compared to women, more men had a financial plan for their retirement. A smaller group of women knew about financial services and used them.

9.3.2 The Link Between Gender, Financial Literacy and Trust

To check whether gender affects trust in the banking system, I do a hypothesis test by running a t-test. There was a very narrow gender gap in trust in the banking system; men's average score was 1.4 points higher than women's. I also checked the impact of the location of the residence on trust; the difference was less than 1 point and insignificant.

Figure 9.1 *The relationship between Gender, FL, and Trust*



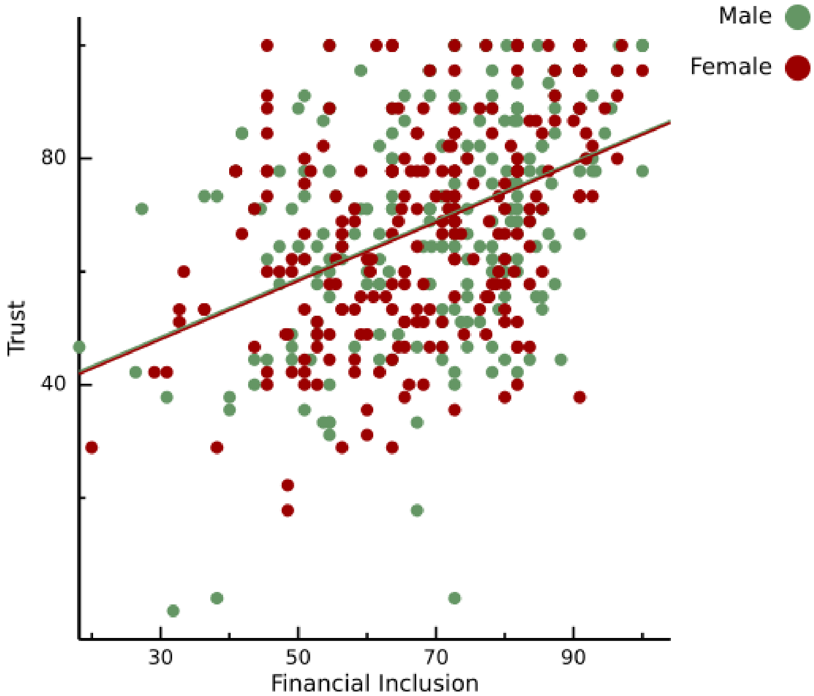
Data exhibit a positive correlation between financial literacy and trust, yet financial literacy has a more significant impact on trust among men than women (Figure 9.1). Assessing the link between financial literacy components and trust exhibited similar results, a positive correlation with a stronger effect for men. Noteworthy, the impact of financial knowledge was more substantial than numeracy, awareness and attitude.

The pattern was not similar in the impact of income on financial literacy and trust. A rise in income increased financial literacy, while those who made between 10,000 to 15,000Birr demonstrated the highest trust in the banking sector.

9.3.3 The Link Between Gender, Financial Inclusion and Trust

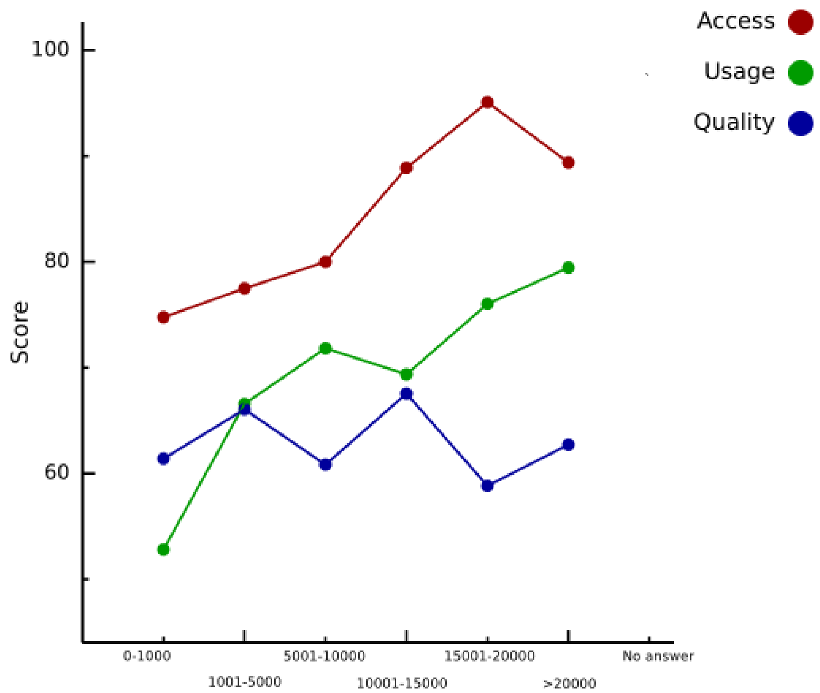
There was evidence of a positive relationship between financial inclusion and trust. Interestingly, data showed a similar trend for men and women; financial inclusion had a similar effect on trust among female and male respondents (Figure 9.2). Furthermore, the components of financial inclusion illustrated a similar pattern; an increase in the score of access, usage and quality raised the level of trust, and there was no disparity between men and women.

Figure 9.2 *The relationship between Gender, FI, and Trust*



I also assessed the impact of income on financial inclusion and trust. The highest level of trust was observed among those who earned between 10,000-15,000Birr monthly, while financial inclusion and income increased simultaneously. Analysing the effect of income on financial inclusion components revealed that those with income of 10,000 to 15,000Birr believed the provided information and services were of excellent quality. At the same time, the highest score for the access dimension belonged to the fifth income group (15,001-20,000Birr). As for usage, it appeared that individuals with the highest level of income (>20,000Birr) used financial services more than the others (Figure 9.3).

***Figure 9.3** The impact of income on the components of the financial inclusion*



9.3.4 Trust, Financial Literacy, and Financial Inclusion

In this section, I will analyse the financial literacy score, financial inclusion, and socio-demographic characteristics of individuals with score higher than average. The average score of trust was 58.6, and 52% of the sample scored equal to or higher than average. Around 57% of these people scored higher than 42.1 (the average of FL) in financial literacy, and almost 70% had a financial inclusion equal/above the average (the average for FI was 69). The demography of the individuals with trust score over the average indicated that more than half were men, from rural, with high school diplomas, and married. The majority made between 1,000 to 10,000Birr (Table 9.1).

Table 9.1 Profile of the respondents with a trust score higher than average (% of the sample)

Profile of the respondents with trust score higher than 58.6 (average score for trust)				
	Group	observations	Total sample	%
Job category	Employees	75	153	49
	Micro business owners	97	186	52
	Small business owners	79	131	60
Age	18-19	9	17	53
	20-29	108	197	55
	30-39	96	187	51
	40-49	25	47	53
	50-59	10	16	63
	60-69	3	6	50
Location	Jimma city	74	149	50
	Districts	177	321	55
Marital status	Single	83	149	56
	Married	168	321	52
Gender	Female	120	235	51
	Male	130	235	55
Income	0-1,000	26	50	52
	1,001-5,000	69	127	54
	5,001-10,000	66	132	50
	10,001-15,000	32	45	71
	15,001-20,000	21	34	62
	>20,000	14	22	64
	No answer	23	57	40
Education	No formal education	1	3	33
	Primary and secondary	36	71	51
	High school	95	177	54
	Junior college	36	68	53
	Undergraduate	65	121	54
	Master's degree/above	18	30	60

9.4 Conclusion

According to the data, it can be concluded there is a positive link between financial literacy, financial inclusion and trust. The analysed data demonstrated that individuals with a higher level of trust are more likely to demonstrate sound financial literacy and be financially included. Similarly, there is evidence that financially savvy people with good access to and usage of financial services acknowledge the banking sector trustworthily.

Building trust and safeguarding trust is a difficult task that burdens financial institutions. So is there any way to minimise the importance of trust in the finance sector? Blockchain technology could be the answer; it was invented to serve as the public transaction ledger of Bitcoin. Digital currency is a hot topic in the economy since its advantages in terms of saving time and costs overturned the drawbacks. Hence, economies worldwide are assessing the possibility of issuing digital currencies through their central banks.

The causality between financial literacy and financial inclusion along with their underlying factors such as trust has been an active area of research. Although the present study does not directly investigate the causality (since the changes in time were not monitored), the results reported here suggest that financial literacy, financial inclusion and trust are closely entangled.

Chapter 10. Conclusion

Since the 2008 global crisis, financial literacy (FL) and financial inclusion (FI) have been in vogue, since their lack has been frequently blamed as the key trigger for the crisis. In other words, the growing attention to FL and FI aimed to safeguard against potential crises in the future. The relationship between FL/FI and the financial crises is a complicated topic needing an in-depth analysis and falls outside the scope of the present research. However, a practical framework was developed in this study both conceptually and empirically.

As discussed in Sections 3.2 and 6.2, the commonly used metrics for FL and FI have been developed based on the aftermath of the 2008 global crisis. Although they seem theoretically reasonable, they do not practically represent any period. For instance, putting weight on the understanding of the compounding concept has not been a practical metric in the last 14 years of near-zero interest rates. In any case, the focus of the present research was to emphasise the requirement of adaptive benchmarks when dealing with different financial systems. It is a misconception that the terms "literacy" and "inclusion" in FL and FI have the same implication around the world. The availability of services defines the framework for benchmarking FI. One may argue that the unavailability of a financial service directly reflects on the FL. It should be kept in mind that financial activities have a comparative nature. For example, if the mortgage is not available in a region, this does not mean that people are not financially included to the fullest. The accessibility to the mortgage controls the housing market. In the absence of any mortgage service, the affordability is lower for all buyers on the demand side. If credit cards are not available in a region, this factor should not affect the FI score, as it was not the case in the United States 70 years ago. Whilst weight is given to stocks because of their significance in the investment; they are non-existent in countries like Ethiopia.

The definition proposed for financial literacy here is not in disagreement with the established methods of assessing financial literacy. Instead, the present definition is more general, covering the available one. In other words, the present definition is the general characteristics of financial literacy. When applying the geological and time restrictions to the definition, it leads to practical recipes for assessing financial literacy in the targeted region. The most established model for assessing financial literacy (the so-called three big and five big questions) is indeed the result of applying the features of the United States financial systems in the pre-2008 era to the present model. Unfortunately, this model was commonly assumed that the model is applicable anywhere and anytime, and thus, it was carelessly copied without considering the regional and rapidly changing features, including financial services and behaviours. For instance, the major weight is put on investment tools which are common in the United States but totally unavailable in Ethiopia, which was the target of the present research.

The problem is not simply the location-specific financial services. The model commonly considered the ultimate definition in the literature is the outcome of a rushed demand for inspecting various aspects of financial literacy right after the 2008 crash. Unfortunately, the model has been developed based on the pre-2008 knowledge of the post-2008 financial behaviour. Owing to the massive government interventions, the financial climate was substantially changed after 2008 around the world. For example, a big weight is given to the understanding of the contribution of compounding in savings. As stressed before, the governments encouraged spending rather than saving through various policies of quantitative easing in the last 14 years. As a result, the smart financial behaviour was to utilise the ease of borrowing rather than relying on the contribution of compounding, which was minimal in the near-zero interest rate period.

We can divide financial literacy into three main forms: fundamental, theoretical and practical. The first form, which is mostly the focus of research surveys, is the fundamental knowledge, such as mathematical skills in numeracy, which paves the path towards financial literacy. The second form is the information gathered about available services, which can assist a person in choosing a particular financial service. The third one is the practical skills obtained as a result of using a service over time.

The critical misconception is that the changes in financial literacy over time are always positive. When someone learns something, they will know it, though their knowledge needs to be revived at a point. It should be kept in mind that financial literacy is different from formal education, in which many learners study to pass a certain exam, and they may forget the content after some time. Financial literacy normally has a long lifespan in all three forms described above. For example, when someone learns the mechanism of a mortgage, they will most likely understand it forever.

Financial literacy has a decaying nature because of its relative framework. If someone is fully financially literate today, this does not guarantee they will be fully financially literate tomorrow by retaining the same level of knowledge because of the emergence of new financial services. A good example is the popularity of subprime mortgages in the United States during the early 2000s, which led to the 2008 crisis. Most people were financially literate to understand the mortgage system but not the potential risk of subprime mortgages.

Similarly, financial inclusion can contribute to the advancement of the financial literacy of a person. On the other hand, a higher income increases the need for more financial services. Moreover, financial inclusion has a decaying nature in the same manner as financial literacy. When someone is using the same range of financial services over a long period of time, they start to become less included in comparison with other people who are subscribed to emerging financial services.

The questionnaire designed here is based on a pragmatic view of the financial system of Ethiopia. The weights are given to the factors that really matter within the targeted financial system. For the sake of comparability and compatibility, marginal weights are given to common but impertinent services such as stocks. They are used as bonus points in calculating the level of FL. In general, the overall questionnaire aims to represent the complete success in FI for an average person. The same logic applies to FL, as literacy is defined by the level of knowledge and awareness for full FI in the given financial system.

Measuring financial literacy, financial inclusion, and trust is the quintessential step in investigating the relationship between these concepts. Methods employed to measure financial literacy, financial inclusion, and trust have been the subject of debate among scholars for a long time. Nevertheless, generalising the results might be challenging because of the differences in sampling, designing studies, and measuring methods.

Following the new definition of financial literacy and intrinsic characteristics of financial inclusion introduced in the theoretical section, it was necessary to have a more subtle perspective in assessing both financial literacy and inclusion. It is not an entirely different outlook, but paying particular attention to various factors which may directly represent both financial literacy and inclusion. As opposed to an over-simplified assessment of financial inclusion via three or five questions, considering a larger number of factors needed a statistical approach to aptly cover the contribution of various factors.

This study introduced new indices to measure financial literacy, financial inclusion, and trust at the individual level and assess the relationship between these indices. The data were collected through questionnaires designed specifically for this study. Furthermore, the sampling method was a mixture of the cluster, stratified and convenience simply to reach the target population and explore the impact of gender. Since most of the studies on trust have been conducted in developed countries, Ethiopia, as an emerging economy with rapid economic growth, political reforms and increasing attention to women's rights, was an interesting place to conduct this research. The target population was chosen from employees and small/micro business owners who live in Jimma Zone, the most populated zone in Ethiopia. Indices were constructed to examine financial literacy, inclusion, and trust.

This study differs from previous studies due to its population under study, using a novel definition for financial literacy, developing new surveys, employing particular methods of measuring financial literacy, financial inclusion, and trust and assessing the impact of gender in a new light.

To the best of our knowledge, this is the first study in this field to investigate the importance of social classes, e.g., employment status, income level, and location of residence, on gender disparities in financial literacy and inclusion simultaneously in an emerging economy by introducing new and tailored measures. The results illustrate that within the sample studied, the gender gap in financial literacy and inclusion is insignificant once we control for wider socioeconomic factors influencing FL and FI.

Furthermore, socially and financially included women demonstrated a good level of financial literacy.

The indices devised here well fit the purpose of benchmarking FI and FL in the financial system of Ethiopia. Not only are the key factor conceptually reasonable, but the results obtained are also quite acceptable in terms of correctly representing the levels of FL and FI in known groups.

A crucial focus of the present study was on women, and thus, the sampling was made to cover women equally. This is indeed a major problem in gender studies, as the imbalance in gender inclusion results in huge gender gaps. In an equally sampled population, it was found that there is no considerable gender gap in either FI or FL. The most critical point is that inclusion should be first social/cultural. In fact, we studied equally sampled socially-included men and women. Upon social inclusion, women have the same tendency (as compared with men) to be financially included by using all available services. In other words, the low level of FI among women in developing countries has nothing to do with FL or finance; instead, the root of the problem is traditional social exclusion. As a result, any programme aiming to improve the financial inclusion of women should target social and cultural barriers (Sholevar and Harris, 2020). Upon removing these barriers, the FI/FL occurs in a regular manner (as expected for male counterparts).

In evaluating the gender disparity in financial literacy and inclusion, the data illustrate that this gap is insignificant, and socioeconomic factors influence FL and FI among the sample. Furthermore, socially and financially included women demonstrate a good level of financial literacy. According to the outcomes, when women are self-employed, they work better, but they are paid less than men when entering a male-dominant workplace. On financial literacy scores, most women who scored higher than average had a good social status, made good money, had a good education degree, and were family decision-makers.

Finally, by investigating the link between trust, financial inclusion, and financial literacy, it appeared that those with a high level of trust in the banking sector are financially included and have a good level of financial literacy. All of these findings emphasise the impact of social and cultural factors on gender disparity. Lifting the cultural aspect of the gender gap would bring more prosperity for women than charitable acts such as gender quotas.

Finally, by investigating the link between trust, financial inclusion, and financial literacy, it appeared that those with a high level of trust in the banking sector are financially included and have a good level of financial literacy. All of these findings emphasise the impact of social and cultural factors on gender disparity. Lifting the cultural aspect of the gender gap would bring more prosperity for women than charitable acts such as gender quotas.

For the sake of a comparative study, the common big five questions were also incorporated into the surveys. The results clearly show that relying on these questions in a country like Ethiopia is quite misleading. Both financially literate and illiterate or financially included and excluded participants achieve the same score because the questions are irrelevant. For example, any question related to stocks is impertinent in Ethiopia, where there is still no stock market. Most researchers do not pay attention to this matter because it is commonly believed that all countries have stock markets, even though they are not as popular as Wall Street. In reality, it is not always the case.

In addition to the empirical findings reported in the present study, the crucial point was the need for a more pragmatic perspective to deal with financial literacy and inclusion as multi-factor complex concepts. This is just the beginning of both theoretical and methodological approaches proposed here. The practical view of the definition of financial literacy should be employed in various systems to highlight the significance of considering regional features. The same applies to the indices devised here. For the sake of simplicity, the weights of various factors were taken equal, but for a more accurate assessment, they should be adjusted. Nonetheless, it is not an easy task as both statistical and conceptual analyses are required to benchmark the role and significance of each factor. In any case, the present study does not claim to provide the ultimate answer, but it is an attempt to highlight the critical misconceptions in the literature and to pave the path for a pragmatic approach to inspect various aspects of financial literacy and inclusion, rather than relying on some over-simplified presumptions.

References

Abay, K.A., Koru, B., Abate, G. and Berhane, G., 2019. Evidence from Ethiopia. Annals of Public and Cooperative Economics 90:1 2019.

Abdu, E. and Adem, M., 2021. Determinants of financial inclusion in Afar Region: Evidence from selected woredas. Cogent Economics & Finance, 9(1), p. 1920149.

Abdu, M., Buba, A., Adamu, I. and Muhammad, T., 2015. Drivers of financial inclusion and gender gap in Nigeria. The Empirical Econometrics and Quantitative Economics Letters (EEQEL), 4(4), pp. 186-199.

Abebe, Y., 2021. Contemporary Geopolitical Dynamics in the Horn of Africa: Challenge and Prospects for Ethiopia. International Relations, 9(09), pp.361-371.

Abebe, G., Tekle, B. and Mano, Y., 2018. Changing saving and investment behaviour: The impact of financial literacy training and reminders on micro-businesses. Journal of African Economies, 27(5), pp. 587-611.

Abegaz, B., 2002. Aid and reform in Ethiopia. In: S. Devarajan, D. Dollar & T. Holmgren, eds. Aid and Reform in Africa. Washington, DC: World Bank, 167–226.

Adam, C., Henstridge, M. and Lee, S., 2020. After the lockdown: macroeconomic adjustment to the COVID-19 pandemic in sub-Saharan Africa. Oxford Review of Economic Policy, 36, pp. S338-S358.

Afandi, E. and Habibov, N., 2017. Pre-and post-crisis trust in banks: Lessons from transitional countries. Journal of Economic Development, 42(1), p. 73.

Africa Fiscal Forum, 2019. Gender Responsive Budgeting. African Fiscal Forum. Nairobi, Kenya. 15th February 2019. Available at: https://www.imf.org/~/media/Files/Conferences/2019/feb-2019-african-fiscal-forum/theme-3-subsidy-reform-and-social-assistance-kubai-khasiani-eng.ashx. Accessed 15-10-2020.

African Centre for Economic Transformation (ACET), 2014. Growth with Depth. African Transformation Report.

African Development Bank (AFDB), 2022. African Economic Outlook 2022. Online, available at: https://www.afdb.org/en/countries/east-africa/ethiopia/ethiopia-economic-outlook

Agarwal, S., Amromin, G., Ben-David, I., Chomsisengphet, S. and Evanoff, D.D., 2015. Financial literacy and financial planning: Evidence from India. Journal of Housing Economics, 27, pp. 4-21.

Agnew, Steve, Pam Maras, and Amy Moon, 2018. Gender differences in financial socialization in the home—An exploratory study. International Journal of Consumer Studies 42(3), pp. 275-282.

Alemayehu, A., 2019. Why should Ethiopians care about urbanization? Jobs, infrastructure, and formal land and housing. WorldBank blogs. Available at: https://blogs.worldbank.org/africacan/why-should-ethiopians-care-about-urbanization-jobs-infrastructure-and-formal-land-and-housing#:~:text=As%20in%20other%20countries%2C%20urbanization,only%2015%25%20of%20total%20workforce.&text=Ethiopia%20has%20some%20advantages%20over,%2DSaharan%20Africa%20(SSA). Accessed 12-10-2020.

Alessie, R., Van Rooij, M. and Lusardi, A., 2011. Financial literacy and retirement preparation in the Netherlands. Journal of Pension Economics & Finance, 10(4), pp. 527-545.

Algan, Y. and Cahuc, P., 2013. Trust and growth. Annual Review of Economics, 5(1), pp. 521-549.

Ali, S., 2019. Infrastructure and Economic Transformation in Ethiopia in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian Economy. Oxford University Press.

Allafrica, 2020. Ethiopia: Central Bank Introduces Deposit Protection Fund. July 2020. Online, available at: https://allafrica.com/stories/202007290872.html#:~:text=The%2019%2Dpage%20draft%20regulation,development%20partners%20and%20the%20government. Accessed 11-08-2022.

Allen, F., Demirguc-Kunt, A., Klapper, L. and Peria, M.M., 2012. Foundations of financial inclusion. Policy Research Working Paper, no. 6290.

Allen, F., Demirguc-Kunt, A., Klapper, L. and Peria, M.S.M., 2016. The foundations of financial inclusion: Understanding ownership and use of formal accounts. Journal of Financial Intermediation, 27, pp. 1-30.

Allgood, S. and Walstad, W.B., 2016. The effects of perceived and actual financial literacy on financial behaviors. Economic Inquiry, 54(1), pp. 675-697.

Allianz research, 2020. Financial and risk literacy survey: resilience in times of Corona.

online, available at https://www.eulerhermes.com/en_global/news-insights/economic-insights/Financial-and-risk-literacy-survey-resilience-in-the-time-of-Corona.html. Accessed 07-04-2021.

Amaha, W. and Peck, D., 2010. Agricultural finance potential in Ethiopia: Constraints and opportunities for enhancing the system. Available at: https://gatesopenresearch.org/documents/3-45. Accessed 25-05-2020.

Ampudia, M. and Palligkinis, S., 2018. Trust and the household-bank relationship.ECB Working Paper, no 2184.

Andersson-Manjang, S. and Naghavi, N., 2021. GSMA state of the industry report on mobile money. GSMA association. Available at: https://www.gsma.com/sotir/#download. Accessed 05-10-2021.

Andrade, Sylvia Gabriela, and Mayra Buvinic. 2019. Mexico Proves Bill & Melinda Right on Gender Data. Centre for global development. Available at: https://www.cgdev.org/blog/mexico-proves-bill-melinda-right-gender-data. Accessed 20-08-2019.

Andriani, D. and Nugraha, N., 2018, August. Spending habits and financial literacy based on gender on employees. In IOP Conference Series: Materials Science and Engineering, 407(1), p. 012089.

Arndt, C., Davies, R., Gabriel, S., Harris, L., Makrelov, K., Modise, B., Robinson, R., Simbanegavi, W., Seventer, D., and Anderson, L., 2020, Impact of Covid-19 on the South African economy; An initial analysis. SA-TIED Working Paper 111.

Ataguba, J.E., 2020. COVID-19 pandemic, a war to be won: understanding its economic implications for Africa. Applied Health Economics and Health Policy 10227. doi:10.1007/s40258-020-00580-x.

Aterido, R., Beck, T. and Iacovone, L., 2013. Access to finance in Sub-Saharan Africa: is there a gender gap? World Development, 47, pp. 102-120.

Atkinson, A. & F. Messy, 2012. Results of the OECD / International Network on Financial Education (INFE) Pilot Study, OECD Working Papers on Finance, Insurance and Private Pensions, no. 15.

Atkinson, A. and Messy, F. A., 2013, Promoting financial inclusion through financial education: OECD/INFE evidence, policies and practice. OECD Working Papers on Finance, Insurance and Private Pensions; No. 34, OECD Publishing, Paris.

Atkinson, A. and Messy, F.A., 2011. Assessing financial literacy in 12 countries: an OECD/INFE international pilot exercise. Journal of Pension Economics & Finance, 10(4), pp. 657-665.

Bachmann, R. and Zaheer, A. eds., 2006. Handbook of trust research. Edward Elgar Publishing.

Batista, C. and Vicente, P.C., 2013. Introducing mobile money in rural Mozambique: Evidence from a field experiment. NOVAFRICA Working Paper Series No. 1301. Available at SSRN: https://ssrn.com/abstract=2384561.

Baza, A.U. and Rao, K.S., 2017. Financial inclusion in Ethiopia. International Journal of Economics and Finance, 9(4), pp. 191-201.

Beck, T., Demirguc-Kunt, A. and Peria, M.S.M., 2007. Reaching out: Access to and use of banking services across countries. Journal of Financial Economics, 85(1), pp. 234-266.

Beck, T., Peria, M. S. M., Obstfeld, M., & Presbitero, A., 2018. Financial inclusion: Drivers and real effects. VOX CEPR’s Policy Portal.

Behrman, J.R., Mitchell, O.S., Soo, C.K. and Bravo, D., 2012.' How financial literacy affects household wealth accumulation. American Economic Review, 102(3), pp. 300-304.

Bekana, D.M., 2020. Policies of Gender Equality in Ethiopia: The Transformative Perspective. International Journal of Public Administration, 43(4), pp. 312-325.

Berg, G. and Zia, B., 2014. Harnessing emotional connections to improve financial decisions Using savings lotteries to promote financial inclusion in South Africa. Enhancing financial capability and behavior in low-and middle-income countries. Washington, DC: International Bank for Reconstruction and Development/The World Bank.

Berge, L.I.O., Bjorvatn, K. and Tungodden, B., 2014. Human and financial capital for microenterprise development: Evidence from a field and lab experiment. Management Science, 61(4), pp. 707-722.

Berhane, G., Abay, K., 2019. Rural Finance and Smallholder farming in Ethiopia, in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian Economy. Oxford University Press.

Berhanu Lakew, T. and Azadi, H., 2020. Financial Inclusion in Ethiopia: Is It on the Right Track? International Journal of Financial Studies, 8(2), p. 28.

Bernheim DB, Garrett DM, Maki DM. 2001. Education and saving: the long-term effects of high school financial curriculum mandates. Journal of Public Economics 80(3): 435–465.

Bernheim, B. Douglas, 1998. Financial Illiteracy, education, and retirement saving. In: O.S., Mitchell, S.J., Schieber, eds., 1998. Living with defined contribution pensions; remaking, responsibility for retirement. University of Pennsylvania Press, pp. 38-68.

Bernheim, B.D., Garrett, D.M., 2003. The effects of financial education in the workplace: evidence from a survey of households. Journal of Public Economics, 87(7-8), pp. 1487-1519.

Berry, J., Karlan, D. and Pradhan, M., 2018. The impact of financial education for youth in Ghana. World Development, 102, pp. 71-89.

Bhutoria, A. and Vignoles, A., 2018. Do financial education interventions for women from poor households impact their financial behaviors? Experimental evidence from India. Journal of Research on Educational Effectiveness, 11(3), pp. 409-432.

Bijlsma, M., van der Cruijsen, C. and Koldijk, J., 2021. Determinants of trust in banks' payment services during COVID: an exploration using daily data. Working paper no.720, De Nederlandsche Bank NV. Available at: https://ssrn.com/abstract=3882566.

Bijlsma, M., van der Cruijsen, C., Jonker, N. and Reijerink, J., 2021. What triggers consumer adoption of CBDC? Working paper no.709, De Nederlandsche Bank NV. Available at https://ssrn.com/abstract=3836440.

Birru, Y., 2019. Ethiopian Financial Sector Development. in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian Economy. Oxford University Press.

Bishaw, A. and Lasser, J., 2012. Education in Ethiopia: Past, Present and Future Prospects. African Nebula, (5).

Blinder, A.S., 1973. Wage discrimination: reduced form and structural estimates. Journal of Human Resources, pp. 436-455.

Bongomin, G.O.C. and Ntayi, J., 2019. Trust: mediator between mobile money adoption and usage and financial inclusion. Social Responsibility Journal, 16(8), pp. 1215-1237. Available at: https://doi.org/10.1108/SRJ-01-2019-0011.

Brascoupe, S., Weatherdon, M. and Tremblay, P., 2013. Literature review of indigenous financial literacy in Australia, Canada, New Zealand and the United States. AFOA CANADA, Building a Community of Professionals. [Online]. Available at: https://www.afoa.ca/afoadocs/Home%20Page/Final%20AFOA%20International%20Literature

%20Review%20Full%20201%20Page%20Report.pdf.

Bravo, R., Martínez, E. and Pina, J.M., 2019. Effects of customer perceptions in multichannel retail banking. International Journal of Bank Marketing, 37(5), pp. 1253-1274.

Breza, E., Kanz, M. and Klapper, L., 2020. Learning to Navigate a New Financial Technology. World Bank Policy Research Working Paper No 9495.

Brookings Institution, 2020. Foresight Africa: Top priorities for the continent 2020-2030. [online]. Available at: https://www.brookings.edu/multi-chapter-report/foresight-africa-top-priorities-for-the-continent-in-2020. Accessed 20-09-2020.

Bruhn, M., Ibarra, G.L. and McKenzie, D., 2013. Why is voluntary financial education so unpopular? Experimental evidence from Mexico. Policy Research Working Paper; NO. 6439. The World Bank.

Brune, L., Giné, X., Goldberg, J. and Yang, D., 2016. Facilitating savings for agriculture: Field experimental evidence from Malawi. Economic Development and Cultural Change, 64(2), pp. 187-220.

Brynin, M., 2017. The gender pay gap. Equality and Human Rights Commission (EHRC). Pay Gaps Research report 109. Equality and Human Rights Commission (EHRC). Available at: https://www.equalityhumanrights.com/sites/default/files/research-report-109-the-gender-pay-gap.pdf. Accessed 01-05-2020.

Brüggen, E.C., Hogreve, J., Holmlund, M., Kabadayi, S. and Löfgren, M., 2017. Financial well-being: A conceptualization and research agenda. Journal of Business Research, 79, pp. 228-237.

Bucher-Koenen, T., Lusardi, A., Alessie, R. and Van Rooij, M., 2017. How financially literate are women? An overview and new insights. Journal of Consumer Affairs, 51(2), pp. 255-283.

Buckland, J., 2010. Are low-income Canadians financially literate? Placing financial literacy in the context of personal and structural constraints. Adult Education Quarterly, 60(4), pp. 357-376.

Buehren, N., 2011. Allocating cash savings and the role of information: Evidence from a field experiment in Uganda.

Bulte, E., Lensink, R. and Vu, N., 2016. Do gender and business trainings affect business outcomes? Experimental evidence from Vietnam. Management Science, 63(9), pp. 2885-2902.

Bulte, E.H., Lensink, R. and Winkel, A.B., 2018. The impact of a gender and business training on income hiding: An experimental study in Vietnam. Journal of Economic Behavior & Organization, 148, pp. 241-259.

Bundervoet, T., Nakamura, S., Paci, P. Beyene, B. M. Finn, A. J., Turk, C., Mylenko,N. 2020. Ethiopia Poverty Assessment - Harnessing Continued Growth for Accelerated Poverty Reduction. Washington, D.C.: World Bank Group. Available at; http://documents.worldbank.org/curated/en/992661585805283077/Ethiopia-Poverty-Assessment-Harnessing-Continued-Growth-for-Accelerated-Poverty-Reduction. Accessed 01-06-2020.

Burgess, R. and Pande, R., 2005. Do rural banks matter? Evidence from the Indian social banking experiment. American Economic Review, 95(3), pp. 780-795.

Buriak, A., Vozňáková, I., Sułkowska, J. and Kryvych, Y., 2019. Social trust and institutional (Bank) trust: Empirical evidence of interaction. Economics & Sociology, 12(4), pp. 116-332.

Burke, J. and Hung, A.A., 2021. Trust and financial advice. Journal of Pension Economics & Finance, 20(1), pp. 9-26.

Camara, N. and Tuesta, D., 2014. Measuring financial inclusion: A multidimensional index. BBVA Research Paper, (14/26).

Carbo-Valverde, S., Maqui-Lopez, E. and Rodríguez-Fernandez, F., 2013, August. Trust in banks: Evidence from the Spanish financial crisis. In 26th Australasian Finance and Banking Conference.

Carpena, F. and Zia, B., 2018. The causal mechanism of financial education: Evidence from mediation analysis. Policy research working paper; No. 8619. The World Bank.

Carpena, F. and Zia, B., 2020. The causal mechanism of financial education: Evidence from mediation analysis. Journal of Economic Behavior & Organization, 177, pp. 143-184.

Carpena, F., Cole, S., Shapiro, J. and Zia, B., 2017. The ABCs of financial education: experimental evidence on attitudes, behavior, and cognitive biases. Management Science, 65(1), pp. 346-369.

Carpena, F., Cole, S.A., Shapiro, J. and Zia, B., 2011. Unpacking the causal chain of financial literacy. World Bank Policy Research Working Paper, (5798).

Central Council for Financial Services Information, 2016. Financial Literacy Survey: 2016 Results. Available at: https://www.shiruporuto.jp/e/survey/kinyulite/pdf/16kinyulite.pdf. Accessed 20-02-2019.

Central Statistical Agency, 2010. National statistics abstract. Available at : http://www.csa.gov.et/national-statistics-abstract-2003-15/category/294-national-statistics-abstract-2010.

Centre for financial capability in the UK, 2019. Financial capability levels in the UK. Available at: https://www.fincap.org.uk/en/articles/levels-uk. Accessed 10-08-2019.

Chen, H. and Volpe, R.P., 2002. Gender differences in personal financial literacy among college students. Financial Services Review, 11(3), pp. 289-307.

Chernykh, L., Davydov, D. and Sihvonen, J., 2019. Financial stability and public confidence in banks (February 19, 2019). BOFIT Discussion Paper No. 2/2019, Available at SSRN: https://ssrn.com/abstract=3339743.

Cheru, F., and Rkiso, Z., 2019. Ethiopia's Economic, Diplomacy and Regional Integration in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian economy. Oxford University Press.

Chevalier, A., 2007. Education, occupation and career expectations: determinants of the gender pay gap for UK graduates. Oxford Bulletin of Economics and Statistics, 69(6), pp. 819-842.

Chithra, N. and Selvam, M., 2013. Determinants of financial inclusion: An empirical study on the inter-state variations in India. Available at SSRN 2296096.

Chliova, M., Brinckmann, J. and Rosenbusch, N., 2015. Is microcredit a blessing for the poor? A meta-analysis examining development outcomes and contextual considerations. Journal of Business Venturing, 30(3), pp. 467-487.

Chorpenning, A., 2020. How Does Life Insurance Work? Forbes Advisor. Available at : https://www.forbes.com/advisor/life-insurance/how-it-works/. Accessed: 12-02-2021

Clapham, C., 2019. The political economy of Ethiopia from the imperial period to the present, in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian economy. Oxford University Press.

Colclough, C., Rose, P. and Tembon, M., 2000. Gender inequalities in primary schooling: The roles of poverty and adverse cultural practice. International Journal of educational development, 20(1), pp.5-27.

Cole, S., Paulson, A. and Shastry, G.K., 2014. Smart money? The effect of education on financial outcomes. The Review of Financial Studies, 27(7), pp. 2022-2051.

Cole, S., Sampson, T. and Zia, B., 2011. Prices or knowledge? What drives demand for financial services in emerging markets? The Journal of Finance, 66(6), pp. 1933-1967.

Cole, S., Zia, B., Abel, M., Crowley, L., Pauliac, C.S., Postal, V., Lundberg, M. and Mulaj, F., 2014. Evaluation of Old Mutuals on the Money Program: Financial Literacy in South Africa. Enhancing Financial Capability and Behavior in Low and Middle-Income Countries, pp. 151-494.

Cole, S.A., Sampson, T.A. and Zia, B.H., 2012. Valuing Financial Literacy. In: R., Cull, A., Demirguc-Kunt and J., Morduch, eds., 2012. Banking the world: empirical foundations of financial inclusion. MIT Press. pp. 415-428.

Collins, J. and Hussey, R., 2003. Business Research: a practical guide for undergraduate and postgraduate students. New York: Paigrave Macmillan.

Connelly, L.M., 2008. Pilot studies. Medsurg Nursing, 17(6), p. 411.

Consultative Group to Assist the Poor (CGAP), 2018, Our mission. Available at: https://www.cgap.org/about. Accessed 20-01-2019.

Consultative Group to Assist the Poor (CGAP), 2021. COVID-19 insights for inclusive finance. Available at: https://www.cgap.org/topics/collections/coronavirus-inclusive-finance. Accessed 04-12-2021.

Councilat Ministerial Level, Paris, France, June 7–8; Available at: https://www.oecd.org/industry/C-MIN-2017-8-EN.pdf. Accessed 12-09-2021.

Courchane, M., Gailey, A. and Zorn, P., 2008. Consumer credit literacy: What price perception? Journal of Economics and Business, 60(1-2), pp. 125-138.

Coville, A., Di Maro, V., Zottel, S. and Dunsch, F.A., 2014. Nigeria's Nollywood nudge. An entertaining approach to saving. Enhancing financial capability and behavior in low-and middle-income countries. International Bank for Reconstruction and Development/The World Bank, Washington, D.C.

Cramer, J.S., Hartog, J., Jonker, N. and Van Praag, C.M., 2002. Low risk aversion encourages the choice for entrepreneurship: an empirical test of a truism. Journal of Economic Behavior & Organization, 48(1), pp. 29-36.

Cruciani, C. and Rigoni, U., 2017. Trust and financial literacy substitutes or complements. Quaderni di Finanza CONSOB, 84, pp. 139-43.

Cumurovic, A. and Hyll, W., 2019. Financial literacy and self-employment. Journal of Consumer Affairs, 53(2), pp. 455-487.

Cupak, A., Fessler, P., Schneebaum, A. and Silgoner, M., 2018. Decomposing gender gaps in financial literacy: New international evidence. Economics Letters, 168, pp. 102-106.

Currall, S.C. and Judge, TA, 1995. Measuring trust between organisational boundary role persons. Organisational Behaviour and Human Decision Processes, 64(2), pp. 151-170.

De Waal, A., 1991. The secret wars to crush the southeast. In: Evil days: Thirty years of war and famine in Ethiopia. Human Rights Watch. p: 83-100.

Deaton, A., 1989. Saving in developing countries: Theory and review. The World Bank Economic Review, 3(suppl_1), pp. 61-96.

Delavande, A., Rohwedder, S. and Willis, R.J., 2008. Preparation for retirement, financial literacy and cognitive resources. Michigan Retirement Research Center Research Paper, (2008-190).

Demirguc-Kunt, A., Klapper, L., Singer, D., Ansar, S. and Hess, J., 2018. The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution. The World Bank.

Demirgüç-Kunt, A. and Klapper, L., 2013. Measuring financial inclusion: Explaining variation in use of financial services across and within countries. Brookings Papers on Economic Activity, 2013(1), pp. 279-340.

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S. and Hess, J., 2020. The Global Findex Database 2017: Measuring financial inclusion and opportunities to expand access to and use of financial services. The World Bank Economic Review, 34(Supplement_1), pp. S2-S8.

Demirgüç-Kunt, A., Klapper, L.F. and Singer, D., 2013. Financial inclusion and legal discrimination against women: evidence from developing countries. World Bank Policy Research Working Paper, (6416). DOI: https://doi.org/10.21203/rs.3.rs-288784/v1.

Dercon S., 2007 Globalisation and Marginalisation in Africa. UNU Research paper No 2007/73. Available at: https://core.ac.uk/download/pdf/6483874.pdf.

Dercon, S. and Krishnan, P., 1996. Income portfolios in rural Ethiopia and Tanzania: choices and constraints. The Journal of Development Studies, 32(6), pp. 850-875.

Dercon, S., 2000. Growth and Poverty in Ethiopia in the 1990s: An Economic Perspective. University of Oxford: Centre for the Study of African Economies.

Dercon, S., Hill, R.V., Clarke, D., Outes-Leon, I. and Taffesse, A.S., 2014. Offering rainfall insurance to informal insurance groups: Evidence from a field experiment in Ethiopia. Journal of Development Economics, 106, pp. 132-143.

Desalegn, G. and Yemataw, G., 2017. Financial inclusion in Ethiopia: Using LSMS (Ethiopia socio-economic survey) data. Ethiopian Journal of Economics, 26(2), pp. 31-58.

Devlin, J.F., Ennew, C.T., Sekhon, H.S. and Roy, S.K., 2015. Trust in financial services: Retrospect and prospect. Journal of Financial Services Marketing, 20(4), pp. 234-245.

Devlin, J.F., Roy, S.K. and Sekhon, H., 2014. Perceptions of fair treatment in financial services: Development, validation and application of a fairness measurement scale. European Journal of Marketing, 48 (7/8), pp. 1315-1332.

Doi, Y., McKenzie, D. and Zia, B., 2014. Who you train matters: Identifying combined effects of financial education on migrant households. Journal of Development Economics, 109, pp. 39-55.

Donaldson L. 1996. For positivist organisation theory. London: Sage.

Drexler, A., Fischer, G. and Schoar, A., 2014. Keeping it simple: Financial literacy and rules of thumb. American Economic Journal: Applied Economics, 6(2), pp. 1-31.

Driva, A., Lührmann, M. and Winter, J., 2016. Gender differences and stereotypes in financial literacy: Off to an early start. Economics Letters, 146, pp. 143-146.

Dube, A.K., Fawole, W.O., Govindasamy, R. and ÖZKAN, B., 2019. Agricultural Development Led Industrialisation in Ethiopia: Structural Break Analysis. International Journal of Agriculture Forestry and Life Sciences, 3(1), pp. 193-201.

Duvendack, M. and Mader, P., 2020. Impact of financial inclusion in low-and middle-income countries: A systematic review of reviews. Journal of Economic Surveys, 34(3), pp. 594-629.

Duvendack, M., Palmer-Jones, R., Copestake, J.G., Hooper, L., Loke, Y. and Rao, N., 2011. What is the evidence of the impact of microfinance on the wellbeing of poor people?

Dwivedi, M., Purohit, H. and Mehta, D., 2015. Improving financial literacy among women: The role of universities. Economic Challenger, October-December.

Elifneh, Y.W., 2021. Financial literacy among high school teenagers in a developing country context-an empirical study with reference to high school students in Addis Ababa, Ethiopia. Independent Journal of Management & Production, 12(5), pp. 1436-1452.

Endris, E. and Kassegn, A., 2022. The role of micro, small and medium enterprises (MSMEs) to the sustainable development of sub-Saharan Africa and its challenges: a systematic review of evidence from Ethiopia. Journal of Innovation and Entrepreneurship, 11(1), pp.1-18.

Ennew, C. and Sekhon, H., 2007. Measuring trust in financial services: The trust index. Consumer Policy Review, 17(2), p. 62.

Ennew, C., Kharouf, H. and Sekhon, H., 2011. Trust in UK financial services: A longitudinal analysis. Journal of Financial Services Marketing, 16(1), pp. 65-75.

Espinosa-Vega, M.A., Shirono, K., Villanova, H.C., Chhabra, E., Das, B. and Fan, Y., 2020. Measuring Financial Access 10 Years of the IMF Financial Survey. Departmental Papers, 2020(008).

Ethiopian Agricultural Transformation Agency. National Growth & Transformation Plan. Online available at: https://web.archive.org/web/20140111222818/http://www.ata.gov.et/priorities/national-growth-transformation-plan. Accessed 18-5-2020.

Ethiopian department for business, energy, and industrial strategies. 2019. Annual report and accounts 2018-19. Planning and Development Commission (PDC), National Income Accounts estimates for 2018/19, 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/824924/beis-annual-report-accounts-2018-2019-web.pdf.

Evans, O., 2016. Determinants of financial inclusion in Africa: A dynamic panel data approach.University of Mauritius Research Journal, 22, 310-336.

Evans, O., 2018. Digital Government: ICT and Public Sector Management in Africa. New Trends in Management: Regional and Cross-border Perspectives, London Scientific Publishing. pp. 269-286.

Federal Micro and Small Enterprises development Agency (2011), Micro and Small Enterprises Development Strategy, Provision Framework and Methods of Implementation. [online], Available at: http://www.mudc.gov.et/c/document_library/get_file?uuid=6dcda118-809c-409d-a46b-2a69e0c477fd&groupId=10136.

Ferede, T.P., 2012. Why Ethiopian Airlines Becomes Successful and What are the Lessons for other Public Companies Doctoral dissertation, Addis Ababa University.

Fernandes, D., Lynch Jr, J.G. and Netemeyer, R.G., 2014. Financial literacy, financial education, and downstream financial behaviours. Management Science, 60(8), pp. 1861-1883.

Field, E., Jayachandran, S. and Pande, R., 2010. Do traditional institutions constrain female entrepreneurship? A field experiment on business training in India. American Economic Review, 100(2), pp. 125-29.

Figueira, C., Nellis, J. and Parker, D., 2006. Does ownership affect the efficiency of African banks? The Journal of Developing Areas, pp. 38-63.

Filipiak, Ute, and Yabibal M. Walle, 2015. The financial literacy gender gap: A question of nature or nurture? Courant Research Centre: Poverty, Equity and Growth-Discussion Papers, No. 176.

Financial Inclusion Program Brief, January 27, IPA, New Haven, CT.

Fisher, P., 2010. Gender differences in personal saving behaviours. Journal of Financial Counselling and Planning 21 (1), 14-24.

Fonseca, R., Mullen, K.J., Zamarro, G., Zissimopoulos, J., 2012. What explains the gender gap in financial literacy? The role of household decision making', Journal of Consumer Affairs, 46, 90–106.

Food and agriculture organisation of the United Nations, 2019. Global Information and Early Warning System, country brief, Ethiopia. The United Nations. Available at: fao.org/giews/countrybrief/country.jsp?code=ETH. Accessed 15-06-2020.

French, D. and McKillop, D., 2016. Financial literacy and over-indebtedness in low-income households. International Review of Financial Analysis, 48, pp. 1-11.

Fungacova, Z., Hasan, I. and Weill, L., 2019. Trust in banks. Journal of Economic Behavior & Organization, 157, pp. 452-476.

Gebreslassie, T.W., 2017. E-Business Strategy to Adopt Electronic Banking Services in Ethiopia. Doctoral dissertation, Walden University.

Gerardi, K., Goette, L. and Meier, S., 2013. Numerical ability predicts mortgage default. Proceedings of the National Academy of Sciences, 110(28), pp. 11267-11271.

Ghosh, S. and Vinod, D., 2017. What constrains financial inclusion for women? Evidence from Indian micro data. World Development, 92, pp. 60-81.

Gilbert, M., Pullano, G., Pinotti, F., Valdano, E., Poletto, C., Boëlle, P.Y., d'Ortenzio, E., Yazdanpanah, Y., Eholie, S.P., Altmann, M. and Gutierrez, B., 2020. Preparedness and vulnerability of African countries against importations of COVID-19: a modelling study. The Lancet, 395(10227), pp. 871-877.

Global Financial Literacy Excellence Center (GFLEC), (2015). S&P GLOBAL FINLIT SURVEY.

Available at https://gflec.org/initiatives/sp-global-finlit-survey. Accessed 12-09-2018.

Goyal, K. and Kumar, S., 2021. Financial literacy: A systematic review and bibliometric analysis. International Journal of Consumer Studies, 45(1), pp. 80-105.

Gray, R.S., 2020. Agriculture, transportation, and the COVID-19 crisis. Canadian Journal of Agricultural Economics/Revue canadienne d'agroeconomie, 68(2), pp. 239-243.

Grohmann, A. and Menkhoff, L., 2020. The Relationship between Financial Literacy and Financial Inclusion. (November 2020). DIW Berlin Discussion Paper No. 1914, Available at SSRN: https://ssrn.com/abstract=3735809.

Grohmann, A., Klühs, T. and Menkhoff, L., 2018. Does financial literacy improve financial inclusion? Cross country evidence. World Development, 111, pp. 84-96.

Grohmann, A., Klühs, T., Menkhoff, L., 2018. Does financial literacy improve financial inclusion? Cross country evidence. World Development, 111, pp. 84-96.

Guiso, L., 2012. Trust and risk aversion in the aftermath of the great recession. European Business Organization Law Review (EBOR), 13(2), pp. 195-209.

Gundelach, B., 2014. In diversity we trust: The positive effect of ethnic diversity on outgroup trust. Political Behavior, 36(1), pp. 125-142.

Haider, N., Yavlinsky, A., Simons, D., Osman, A.Y., Ntoumi, F., Zumla, A. and Kock, R., 2020. Passengers' destinations from China: low risk of novel coronavirus (2019-nCoV) transmission into Africa and South America. Epidemiology & Infection, 148. Available at: https://doi.org/10.1017/S0950268820000424.

Hailemariam, A., 2019. Ethiopia's Changing Demography. in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The oxford handbook of the Ethiopian economy. Oxford University Press.

Hansen, T., 2012. Understanding trust in financial services: the influence of financial healthiness, knowledge, and satisfaction. Journal of Service Research, 15(3), pp. 280-295.

Hansen, T., 2014. The role of trust in financial customer–seller relationships before and after the financial crisis. Journal of Consumer Behaviour, 13(6), pp. 442-452.

Hastings, J.S., Madrian, B.C. and Skimmyhorn, W.L., 2013. Financial literacy, financial education, and economic outcomes. Annual Review of Economics, 5(1), pp. 347-373.

Hastings, J.S., Mitchell, O.S., 2011. How financial literacy and impatience shape retirement wealth and investment behaviours. Journal of Pension Economics & Finance, pp. 1-20.

Hieltjes, E.H. and Petrova, E., 2013. The impact of financial literacy and transaction costs on bank account uptake and use: A Randomized Controlled Trial in Ethiopia. Unpublished MSC. Thesis). Stockholm: Stockholm School of Economics.

Hilgert, M.A., Hogarth, J.M. and Beverly, S.G., 2003. Household financial management: The connection between knowledge and behaviour. Federal Reserve Bulletin, 89, p. 309.

Hogarth, J.M., Beverly, S.G. and Hilgert, M., 2003. Patterns of financial behaviors: Implications for community educators and policymakers. Paper presented at the 2003 Federal Reserve System Community Affairs Research Conference. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.196.5257&rep=rep1&type=pdf.

Honohan, P., 2008. Cross-country variation in household access to financial services. Journal of Banking & Finance, 32(11), pp. 2493-2500.

Hsu, J.W., 2016. Aging and strategic learning: The impact of spousal incentives on financial literacy. Journal of Human Resources, 51(4), pp. 1036-1067.

Huis, M.A., Hansen, N., Otten, S. and Lensink, R., 2017. A three-dimensional model of women's empowerment: Implications in the field of microfinance and future directions. Frontiers in Psychology, 8, p. 1678.

Hundie, S.K. and Tulu, D.T., 2021. Financial Inclusion Gender Gap in Ethiopia: Evidence from Decomposition Analysis. Available at: https://doi.org/10.21203/rs.3.rs-288784/v1.

Hung, A., Parker, A.M. and Yoong, J., 2009. Defining and measuring financial literacy. RAND Labor and Population Working Paper No. WR-708. Rand Corporation, Santa Monica, CA.

Hung, A., Yoong, J., Brown, E., 2012. Empowering women through financial awareness and education. OECD Working Papers on Finance, Insurance and Private Pensions; No. 14. Available at: http://dx.doi.org/10.1787/5k9d5v6kh56g-en. Accessed 16-03-2019.

Hurley, R., Gong, X. and Waqar, A., 2014. Understanding the loss of trust in large banks. International Journal of Bank Marketing. 32, 348-366.

Huston, S.J., 2010. Measuring financial literacy. Journal of consumer affairs, 44(2), pp. 296-316.

Idris, N.H., Yazid, Z.A., Faique, F.A., Daud, S., Ismail, S., Bakri, M.H. and Taib, N.M., 2016. Financial literacy and debt burden among Malay youth workers in Malaysia. Advanced Science Letters, 22(12), pp. 4288-4292.

Innovations for Poverty Action (IPA). 2017. Beyond the Classroom: Evidence on New

Directions in Financial Education.

Iyer, P., Rolleston, C., Rose, P. and Woldehanna, T., 2020. A rising tide of access: what consequences for equitable learning in Ethiopia?. Oxford Review of Education, 46(5), pp.601-618.

Jamison, J.C., Karlan, D. and Zinman, J., 2014. Financial education and access to savings accounts: Complements or substitutes? Evidence from Ugandan youth clubs. NBER Working Paper, No. 20135.

Jang, K., Hahn, J. and Park, H.J., 2014. Comparison of financial literacy between Korean and US high school students. International Review of Economics Education, 16, pp. 22-38.

Jappelli, T. and Padula, M., 2013. Investment in financial literacy and saving decisions. Journal of Banking & Finance, 37(8), pp. 2779-2792.

Jappelli, T., 2010. Economic literacy: An international comparison. The Economic Journal, 120(548), pp. F429-F451.

Jarvinen, R.A., 2014. Consumer trust in banking relationships in Europe. International Journal of Bank Marketing.

Johnson, E., and Sherraden, M.S., 2007. From financial literacy to financial capability among youth. Journal of Sociology & Social Welfare, 34, p. 119.

Johnson, R.B., Onwuegbuzie, A.J., Turner, L.A., 2007.' Toward a definition of mixed methods research. Journal of Mixed Methods Research, 1(2), pp. 112-133.

Jones, J., 2006. College students' knowledge and use of credit. Journal of Financial Counseling and Planning, 16(2), 9-16.

Jones, P.A., 2008. From tackling poverty to achieving financial inclusion—The changing role of British credit unions in low-income communities. The Journal of Socio-Economics, 37(6), pp. 2141-2154.

KPMG, 2020. Government and institution measures in response to COVID-19 Available at: https://home.kpmg/xx/en/home/insights/2020/04/ethiopia-government-and-institution-measures-in-response-to-covid.html. Accessed 12-07-2020.

Kadoya, Y. and Khan, M.S.R., 2017. Explaining financial literacy in Japan: New evidence using financial knowledge, behavior, and attitude. Behavior, and Attitude. Available at: https://doi.org/10.3390/su12093683.

Kaiser, T., Menkhoff, L., 2017. Does financial education impact financial literacy and financial behaviour, and if so, when? World Bank Economic Review, 31 (3), pp. 611-630.

Kanos, D., and Heitzig, C., 2020. Figures of the week: Africa's urbanization dynamics. Brookings. [Online].16/07/2020. available at https://www.brookings.edu/blog/africa-in-focus/2020/07/16/figures-of-the-week-africas-urbanization-dynamics/#:~:text=As%20of%202015%2C%2050%20percent,is%20the%20most%20urbanized%20region. Accessed 1-08-2020.

Kassahun, S., 2010. Social capital as a catalyst for community development: A case of poor localities in Addis Ababa, Ethiopia. Journal of Sustainable Development in Africa, 12(6), pp. 122-139.

Kebede, Y., Yitayih, Y., Birhanu, Z., Mekonen, S. and Ambelu, A., 2020. Knowledge, perceptions and preventive practices towards COVID-19 early in the outbreak among Jimma university medical centre visitors, Southwest Ethiopia. PloS one, 15(5), p. e0233744.

Kempson, E., 2009. Framework for the development of financial literacy baseline surveys: A first international comparative analysis. The Organisation for Economic Co-operation and Development (OECD). Working Papers on Finance, Insurance and Private Pensions, No.1. Available at: https://doi.org/10.1787/20797117.

Kenya, F.S.D., 2013. Central Bank of Kenya (2013). FinAccess National Survey 2013: Profiling developments in financial access and usage in Kenya, Nairobi, pp. 44-69.

Ketema, M. and Diriba, G., 2021. State of the Ethiopian Economy 2020/21: Economic Development. Population Dynamics, and Welfare.

Kim, Robin, 2020. Education, Not Marriage: Building Better Futures For Girls In Ethiopia. Forbs, July, 2020. Online, available at: https://www.forbes.com/sites/unicefusa/2020/07/03/education-not-marriage-building-better-futures-for-girls-in-ethiopia/?sh=652c17ab45b5

King, R.G. and Levine, R., 1993. Finance and growth: Schumpeter might be right. The Quarterly Journal of Economics, 108(3), pp. 717-737.

Klapper, L. and Lusardi, A., 2020. Financial literacy and financial resilience: Evidence from around the world. Financial Management, 49(3), pp. 589-614.

Klapper, L. and Panos, G.A., 2011. Financial literacy and retirement planning: the Russian case. Journal of Pension Economics & Finance, 10(4), pp. 599-618.

Klapper, L. and Singer, D., 2018. The role of demand-side data-measuring financial inclusion from the perspective of users of financial services. IFC Bulletins chapters, 47.

Klapper, L., Lusardi, A. and Van Oudheusden, P., 2015. Financial literacy around the world. World Bank. Washington DC: World Bank.

Knack, S. and Keefer, P., 1997. Does social capital have an economic payoff? A cross-country investigation. The Quarterly Journal of Economics, 112(4), pp. 1251-1288.

Knell, M. and Stix, H., 2015. Trust in banks during normal and crisis times, evidence from survey data. Economica, 82, pp. 995-1020.

Koh, B.S., Mitchell, O.S. and Fong, J.H., 2021. Trust and retirement preparedness: Evidence from Singapore. The Journal of the Economics of Ageing, 18, p. 100283.

Krugman, P. 2012. End This Depression Now! W. W. Norton & Company.

Kurowski, Ł., 2021. Household's Overindebtedness during the COVID-19 Crisis: The Role of Debt and Financial Literacy. Risks, 9(4), p. 62.

Lave, J., 1988. Cognition in practice: Mind, mathematics and culture in everyday life. Cambridge University Press, pp. 1-19.

Lavezzolo, S., Rodríguez-Lluesma, C. and Elvira, M.M., 2018. National culture and financial systems: The conditioning role of political context. Journal of Business Research, 85, pp. 60-72.

Lederman, D., Lesniak, J.T., Feenstra, R.C., Inklaar, R. and Timmer, M.P., 2017. The Next Generation of the Penn World Table. American Economic Review, 105(10), 3150-3182.

Letamendia, L.N. and Poher, B., 2020. The effect of financial literacy on trust: do financially literate individuals have more trust in the financial system? Working Paper, April.

Lewicki, R.J., McAllister, D.J. and Bies, R.J., 1998. Trust and distrust: New relationships and realities. Academy of Management Review, 23(3), pp. 438-458.

Lin, C., Hsiao, Y.J. and Yeh, C.Y., 2017. Financial literacy, financial advisors, and information sources on demand for life insurance. Pacific-Basin Finance Journal, 43, pp. 218-237.

Loibl, C., 2017. Living in poverty: Understanding the financial behaviour of vulnerable groups. Economic Psychology, pp. 421-434.

Loke, Y.J., 2016. Living beyond one's means: evidence from Malaysia. International Journal of Social Economics, 43(1), pp. 2-18.

Lusardi, A. and Mitchell, O. S., 2008a. How much do people know about economics and finance? Financial illiteracy and the importance of financial education. Policy Brief, 5, pp. 1-5.

Lusardi, A. and Mitchell, O.S., 2006. Financial literacy and planning: implications for retirement wellbeing, Working Paper No 2006-1, Pension Research Council Working Papers series, The Wharton School, University of Pennsylvania, Philadelphia.

Lusardi, A. and Mitchell, O.S., 2007. Baby boomer retirement security: The roles of planning, financial literacy, and housing wealth. Journal of Monetary Economics, 54(1), pp. 205-224.

Lusardi, A. and Mitchell, O.S., 2007. Financial literacy and retirement planning: New evidence from the Rand American Life Panel. Michigan Retirement Research Center Research Paper No. WP, 157.

Lusardi, A. and Mitchell, O.S., 2008. Planning and financial literacy: How do women fare? American Economic Review, 98(2), pp. 413-17.

Lusardi, A. and Mitchell, O.S., 2009. How ordinary consumers make complex economic decisions: Financial literacy and retirement readiness. Working Paper; No. w15350. National Bureau of Economic Research.

Lusardi, A. and Mitchell, O.S., 2011. Financial literacy and planning: Implications for retirement wellbeing. Working paper; No. w17078. National Bureau of Economic Research.

Lusardi, A. and Mitchell, O.S., 2014. The economic importance of financial literacy: Theory and evidence. Journal of Economic Literature, 52(1), pp. 5-44.

Lusardi, A. and Mitchell, O.S., 2017. How ordinary consumers make complex economic decisions: Financial literacy and retirement readiness. Quarterly Journal of Finance, 7(3), p. 1750008.

Lusardi, A. and Tufano, P., 2009. Debt literacy, financial experiences and overindebtedness. Working Paper no. 14808, pp. 1-46.

Lusardi, A. and Tufano, P., 2015. Debt literacy, financial experiences, and overindebtedness. Journal of Pension Economics & Finance, 14(4), pp. 332-368.

Lusardi, A., 2012. Numeracy, financial literacy, and financial decision-making (No. w17821). National Bureau of Economic Research.

Lusardi, A., Hasler, A. and Yakoboski, P.J., 2021. Building up financial literacy and financial resilience. Mind & Society, 20(2), pp. 181-187.

Lusardi, A., Michaud, P.C. and Mitchell, O.S., 2017. Optimal financial knowledge and wealth inequality. Journal of Political Economy, 125(2), pp. 431-477.

Lusardi, A., Tufano, P., 2015. Debt literacy, financial experiences, and over indebtedness. Journal of Pension Economics & Finance, 14(4), pp. 332-368.

Mainwaring, H., 2020. Financial resilience of households; the extent to which financial assets can cover an income shock. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/articles/financialresilienceofhouseholdstheextenttowhichfinancialassetscancoveranincomeshock/2020-04-02. Accessed: 10-02-2022.

Manyazewal, M., and Shiferaw, A., 2019. Economic Policy and Structural Transformation in Ethiopia in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian Economy. Oxford University Press.

Mason, C. and Wilson, R., 2000. Conceptualising financial literacy. London: Loughborough University, Business School. Retrieved May 8 (2006), pp. 2000-7.

Mastercard Intelligence, 2011. How well do women know their money: financial literacy across asia/pacific, middle east and africa. [online]. Available at: https://www1.mastercard.com/content/intelligence/en/research/reports/2011/how-well-do-women-know-their-money-financial-literacy-across-asiapacific-middle-east-and-africa.html. Accessed 12-15-18.

Mavilia, R. and Pisani, R., 2020. Blockchain and catching-up in developing countries: The case of financial inclusion in Africa. African Journal of Science, Technology, Innovation and Development, 12(2), pp. 151-163.

McDaniel, L., Martin, R.D. and Maines, L.A., 2002. Evaluating financial reporting quality: The effects of financial expertise vs. financial literacy. The Accounting Review, 77(s-1), pp. 139-167.

McEvily, B. and Tortoriello, M., 2011. Measuring trust in organisational research: Review and recommendations. Journal of Trust Research, 1(1), pp. 23-63.

McKenzie Baker, 2020. The impact of Covid-19 on key African sectors. Baker McKenzie, 10. online. https://www.bakermckenzie.com/en/insight/publications/2020/03/the-impact-of-covid19-on-key-african-sectors. Accessed 25-09-2020.

McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. Information Systems Research, 13(3), pp. 334–359.

McKnight, D.H., Cummings, L.L. and Chervany, N.L., 1998. Initial trust formation in new organizational relationships. Academy of Management Review, 23(3), pp. 473-490.

Mengisteab, K., 2019. Federalism in Ethiopia's Transformation, in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian Economy. Oxford University Press.

Mesfin, W.F., Atnafu, S. and Ghinea, G., 2013, June. Open air market and mobile money information system requirements. In International Conference on ICT for Smart Society (pp. 1-6). IEEE.

Mialou, A., Amidzic, G. and Massara, A., 2017. Assessing countries' financial inclusion standing—A new composite index. Journal of Banking and Financial Economics, 2 (8), pp. 105-126.

Michie, J., 2020. The COVID-19 crisis–and the future of the economy and economics. International Review of Applied Economics, 34(3), pp. 301-303.

Miller, M., Reichelstein, J., Salas, C. and Zia, B., 2015. Can you help someone become financially capable? A meta-analysis of the literature. The World Bank Research Observer, 30(2), pp. 220-246.

Ministry of Finance and Economic Development, 2010. Growth and Transformation Plan 2010-2015. Addis Ababa, MOFED. Available at: http://extwprlegs1.fao.org/docs/pdf/eth144893.pdf. Accessed: 24-05-2020.

Ministry of Finance and Economic Development, 2012. National Gender Responsive Budgeting Guidelines. Addis Ababa, MOFED. Available at: http://www.mofed.gov.et/documents/10182/14021/GRB+gudeline+English.pdf/d20e7061-ff24-468c-b1fe-8ef79af0f098. Accessed: 18-10-2020.

Ministry of Education, 2021. Educational Statistics Annual Abstract. The Federal Democratic Republic of Ethiopia, Ministry of Education. Online, Available at: https://moe.gov.et/EduStat

Moin, S.M.A., Devlin, J. and McKechnie, S., 2015. Trust in financial services: Impact of institutional trust and dispositional trust on trusting belief. Journal of Financial Services Marketing, 20(2), pp. 91-106.

Moin, S.M.A., Devlin, J. and McKechnie, S., 2021. Introducing a composite measure of trust in financial services. The Service Industries Journal, pp. 1-27.

Moller, L.C. and Wacker, K.M., 2017. Explaining Ethiopia's Growth Acceleration—The Role of Infrastructure and Macroeconomic Policy. World Development, 96, pp. 198-215.

Monticone, C., 2010. How much does wealth matter in the acquisition of financial literacy? Journal of Consumer Affairs, 44(2), pp. 403-422.

Moore, D.L., 2003. Survey of financial literacy in Washington State: Knowledge, behavior, attitudes, and experiences. Washington State Department of Financial Institutions. DOI:10.13140/2.1.4729.4722.

Morawczynski, O. and Miscione, G., 2008, in IFIP International Federation for Information Processing, Volume 282; Social Dimensions of Information and Communication Technology Policy; Chrisanthi Avgerou, Matthew L. Smith, Peter van den Besselaar; (Boston: Springer), pp. 287–298.

Morsy, H., 2020. Access to finance–Mind the gender gap. The Quarterly Review of Economics and Finance, 78, pp. 12-21.

Mulema, A. A., and Nigussie, L., 2019. Women's Empowerment in Rural Ethiopia. in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian Economy. Oxford University Press.

Mullainathan, S. and Shafir, E., 2009. Savings policy and decision-making in low-income households. In: Blank, R., Barr, M., eds., 2009. Insufficient funds: Savings, assets, credit, and banking among low-income households. Russell Sage, New York, pp. 121-146.

Muller, S. and Weber, M., 2010. Financial literacy and mutual fund investments: who buys actively managed funds? Schmalenbach Business Review, 62(2), pp. 126-153.

Mustapha, M. and Jeyaram, S., 2015. Financial literacy and demographic factors. Journal of Technology Management and Business, 2(1). Available at: https://penerbit.uthm.edu.my/ojs/index.php/jtmb/article/view/1091.

Nakamura, H. and Managi, S., 2020. Airport risk of importation and exportation of the COVID-19 pandemic. Transport Policy, 96, pp. 40-47.

Nanda, A.K. and Samanta, S., 2018. Mainstreaming tribals through financial literacy–a review of the literature. International Journal of Social Economics, 45(2), pp. 437-444.

Nanziri, E.L. and Leibbrandt, M., 2018. Measuring and profiling financial literacy in South Africa. South African Journal of Economic and Management Sciences, 21(1), pp. 1-17.

National Bank of Ethiopia (NBE), 2017. National Financial Inclusion Strategy. Available at :

https://nbebank.com/wp-content/uploads/pdf/useful-links/ethiopian-national-financial-Inclusion-strategy.pdf.

National Bank of Ethiopia (NBE), 2019/20 Annual report. National Bank of Ethiopia. Available at: https://nbebank.com/wp-content/uploads/pdf/annualbulletin/Annual%20Report%202019-2020.pdf.

National Bank of Ethiopia (NBE), 2020/21, Annual report. National Bank of Ethiopia. Available at: https://nbebank.com/annual-report/

Naude, W., 1998. On Ethiopia's Economic Transition and Beyond. African Development Review, 10(2), pp. 121-142.

Nicolini, G. and Haupt, M., 2019. The Assessment of Financial Literacy: New Evidence from Europe. International Journal of Financial Studies, 7(3), p. 54.

Nicolini, G., Cude, B.J. and Chatterjee, S., 2013. Financial literacy: A comparative study across four countries. International Journal of Consumer Studies, 37(6), pp. 689-705.

Nigatu, Y., 2018. Ethiopian Politics Post-1991: A Continuous Challenge to the Peace and Stability of the Horn of Africa Region. United Nation University. Working paper. No. W-2018/2. Available at http://cris.unu.edu/sites/cris.unu.edu/files/W-2018%20-2.pdf.

Nuzzo, G. and Piermattei, S., 2020. Discussing measures of financial inclusion for the main Euro area countries. Social Indicators Research, 148(3), pp. 765-786.

Nyarko, E.S., 2018. Financial Inclusion, Financial Literacy and Inclusive Growth in Africa (Doctoral dissertation, University of Ghana).

Nyhus, E.K. and Webley, P., 2006. Discounting, self-control, and saving. Handbook of contemporary behavioral economics: Foundations and developments, pp. 297-325.

Oaxaca, R., 1973. Male-female wage differentials in urban labour markets. International Economic Review, pp. 693-709.

O'Gorman, K. and MacIntosh, R., 2015. Research methods for business and management: A guide to writing your dissertation. Goodfellow Publishers Ltd.

Oji, C.K., 2015. Promoting financial inclusion for inclusive growth in Africa.

Oliveira, T., Faria, M., Thomas, M.A. and Popovič, A., 2014. Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM. International Journal of Information Management, 34(5), pp. 689-703.

Oqubay, A., 2019. Industrial Policy and Late Industrialisation in Ethiopia in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian Economy. Oxford University Press.

Oqubay, A., 2020. Ethiopia's unconventional COVID-19 response. World Economic Forum, 2020. Online. Available at: https://www.weforum.org/agenda/2020/06/ethiopia-covid19-response/. Accessed 20-06-2020.

Organisation for Economic Co-operation and Development (OECD), 2017. Enhancing the Contributions of SMEs in a Global and Digitalised Economy. Paper Presented at Meeting of the OECD Councilat Ministerial Level, Paris, France, June 7–8. Available at: https://www.oecd.org/industry/C-MIN-2017-8-EN.pdf. Accessed 12-09-2021.

Organisation for Economic Co-operation and Development (OECD), 2018. OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion.

Organisation for Economic Co-operation and Development (OECD), 2020. OECD/INFE 2020 International Survey of Adult Financial Literacy.www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracysurveyreport.htm.

Organisation for Economic Co-operation and Development (OECD/INFE), 2011. Measuring financial literacy: Questionnaire and guidance notes for conducting an internationally comparable survey of financial literacy. Available at: http://www.oecd.org/finance/financial-education/49319977.pdf. Accessed 05-03-2019.

Organisation for Economic Cooperation and Development (OECD), 2013. PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy, OECD Publishing, Paris.

Oshora, B., Desalegn, G., Gorgenyi-Hegyes, E., Fekete-Farkas, M. and Zeman, Z., 2021. Determinants of Financial Inclusion in Small and Medium Enterprises: Evidence from Ethiopia. Journal of Risk and Financial Management, 14(7), p. 286.

Paiella, M., 2016. Financial literacy and subjective expectations questions: A validation exercise. Research in Economics, 70(2), pp. 360-374.

Paintsil, E., 2020. COVID-19 threatens health systems in sub-Saharan Africa: the eye of the crocodile. The Journal of Clinical Investigation, 130(6), pp. 2741-2744.

Pankow, D. , 2012. Financial Values, Attitudes and Goals. North Dakota State University Fargo, North Dakota 58105.

Parcia, R.O. and Estimo, E.T., 2017. Employees’ financial literacy, behavior, stress and wellness. Journal of Human Resource Management, 5(5), pp. 78-89.

Perry, V.G. and Morris, M.D., 2005. Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behaviour. Journal of Consumer Affairs, 39(2), pp. 299-313.

Pesque-Cela, V., Tian, L., Luo, D., Tobin, D. and Kling, G., 2021. Defining and measuring financial inclusion: A systematic review and confirmatory factor analysis. Journal of International Development, 33(2), pp. 316-341.

Pratto, F., Lee, I., Tan, J. and Pitpitan, E., 2011. Power basis theory: A psycho-ecological approach to power. Social Motivation, pp. 191-222.

Ramakrishnan, D., 2011. Financial Literacy-The Demand Side of Financial Inclusion. Available at SSRN 1958417.

Refera, M.K., Dhaliwal, N.K. and Kaur, J., 2017. Financial Literacy among Urban Dwellers in Addis Ababa, Ethiopia. International Academic Journal of Accounting and Financial Management, 4(2), pp. 27-49.

Remund, D.L., 2010. Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. Journal of Consumer Affairs, 44(2), pp. 276-295.

Rhyne, E. and Kelly, S.E., 2018. Financial inclusion hype vs reality: Deconstructing the 2017 Findex results. Washington, DC: Center for Financial Inclusion.

Rhyne, E., Kelly, S., 2018. Financial Inclusion Hype vs. Reality: Deconstructing the 2017 Findex Results. Center for Financial Inclusion, 4 May. [Online]. Available at: https://www.centerforfinancialinclusion.org/financial-inclusion-hype-vs-reality-deconstructing-the-2017-findex-results-2. Accessed 11-06-2018.

Ricci, O. and Caratelli, M., 2017. Financial literacy, trust and retirement planning. Journal of Pension Economics & Finance, 16(1), pp. 43-64.

Ring, P.J., 2005. Trust in UK pensions policy: a different approach? Policy & Politics, 33(1), pp. 55-74.

Rivero, C.C., 2022. Financial literacy and financial education in South America. In The Routledge Handbook of Financial Literacy (pp. 344-362). Routledge.

Rousseau, D.M., Sitkin, S.B., Burt, R.S. and Camerer, C., 1998. Not so different after all: A cross-discipline view of trust. Academy of Management Review, 23(3), pp. 393-404.

Roy, S.K., Devlin, J. F., Sekhon, H., and Bian, X., 2020. Decision delegation and trust: Insights from financial services: An abstract. In F. Pantoja, S. Wu, & N. Krey (Eds.), Enlightened marketing in challenging times. AMSWMC 2019. Developments in marketing science: Proceedings of the Academy of Marketing Science. Springer. Available at: https://doi.org/10.1007/978-3-030-42545-6_60.kni.

Sanderson, A., Mutandwa, L. and Le Roux, P., 2018. A review of determinants of financial inclusion. International Journal of Economics and Financial Issues, 8(3), p. 1.

Sapovadia, V., 2018. Financial inclusion, digital currency, and mobile technology. In Handbook of Blockchain, Digital Finance, and Inclusion, Volume 2 (pp. 361-385). Academic Press.

Sarma, M. and Pais, J., 2011. Financial inclusion and development. Journal of International Development, 23(5), pp. 613-628.

Sarma, M., 2008. Index of financial inclusion. ICRIER Working paper No. 215. Retrieved from Indian Council for Research on International Economic Relations website.

Saunders, M., Lewis, P. and Thornhill, A., 2009. Research methods for business students. Pearson education.

Sayinzoga, A., Bulte, E.H. and Lensink, R., 2016. Financial literacy and financial behaviour: Experimental evidence from rural Rwanda. The Economic Journal, 126(594), pp. 1571-1599.

Sekhon, H., Ennew, C., Kharouf, H. and Devlin, J., 2014. Trustworthiness and trust: influences and implications. Journal of Marketing Management, 30(3-4), pp. 409-430.

Sherraden, M.S., 2013. Building blocks of financial capability. Financial education and capability: Research, education, policy, and practice, pp. 3-43.

Shiferaw, A., 2016. Constraints to Private Investment in a High-Growth Environment: Firm-level Evidence from Ethiopia. Working paper 168, Economic department, The College of William and Mary.

Shim, S., Xiao, J.J., Barber, B.L. and Lyons, A.C., 2009. Pathways to life success: A conceptual model of financial well-being for young adults. Journal of Applied Developmental Psychology, 30(6), pp. 708-723.

Sholevar, M., and Harris, L., 2020. Women are invisible?! A literature survey on gender gap and financial training. Citizenship, Social and Economics Education, 19(2), pp. 87-99.

Sholevar, M., and Laurence Harris, 2019. Mind the Gap A Survey of Literature on Financial

Literacy and Financial Behaviour: Is There a Gender Gap?' Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3384041.

Sidanius, J. and Pratto, F., 2001. Sex and power. In: social dominance: An intergroup theory of social hierarchy and oppression. Cambridge University Press. pp. 263-298.

Sirdeshmukh, D., Singh, J. and Sabol, B., 2002. Consumer trust, value, and loyalty in relational exchanges. Journal of Marketing, 66(1), pp. 15-37.

Slade, E.L., Dwivedi, Y.K., Piercy, N.C. and Williams, M.D., 2015. Modeling consumers' adoption intentions of remote mobile payments in the United Kingdom: extending UTAUT with innovativeness, risk, and trust. Psychology & Marketing, 32(8), pp. 860-873.

Soumaré, I., Tchana Tchana, F. and Kengne, T.M., 2016. Analysis of the determinants of financial inclusion in Central and West Africa. Transnational Corporations Review, 8(4), pp. 231-249.

Sowell, T. 2009. The Housing Boom and Bust. Basic Books.

Spader, J., Ratcliffe, J., Montoya, J. and Skillern, P., 2009. The bold and the bankable: How the Nuestro Barrio telenovela reaches Latino immigrants with financial education. Journal of Consumer Affairs, 43(1), pp. 56-79.

Statista, 2020. Ethiopia: Share of economic sectors in the gross domestic product (GDP) from 2008 to 2018. Online. Available at : https://www.statista.com/statistics/455149/share-of-economic-sectors in-the-gdp-in ethiopia/#:~:text=This%20statistic%20shows%20the%20share,sector%20contributed%20about%2036.52%20percent.. Accessed 12-04-2020.

Steinert, J.I., Zenker, J., Filipiak, U., Movsisyan, A., Cluver, L.D. and Shenderovich, Y., 2018. Do saving promotion interventions increase household savings, consumption, and investments in Sub-Saharan Africa? A systematic review and meta-analysis. World Development, 104, pp. 238-256.

Stevenson, B. and Wolfers, J., 2011. Trust in public institutions over the business cycle. American Economic Review, 101(3), pp. 281-87.

Stobierski, T., 2018. What Is a Security? Available at: https://www.northwesternmutual.com/life-and-money/investing-101-what-is-a-security/. Accessed 20-12-2020.

Strauss, A. and Corbin, J., 1998. The Interplay Between Qualitative and Quantitative in

Theorizing. In: Basics of qualitative research techniques. CA: Sage Publications, p. 34.

Tesema, M.T. and Braeken, J., 2018. Regional inequalities and gender differences in academic achievement as a function of educational opportunities: Evidence from Ethiopia. International Journal of Educational Development, 60, pp. 51-59.

The Guardian, How long can Ethiopia's state of emergency…? 12 February 2017. https://www.theguardian.com/global-development/2017/feb/12/ethiopia-state-of-emergency-anger-oromo-people.

Timbula, M.A., Mengesha, T., Mekonnen, Y. and Kebede, M., 2019. Financial Inclusion and its Determinants among Households in Jimma Zone of Oromia Regional State, Ethiopia. International Journal of Commerce and Finance, 5(2), pp. 106-119.

Tiwari, J., Schaub, E. and Sultana, N., 2019. Barriers to last mile financial inclusion: cases from northern Kenya. Development in Practice, 29(8), pp. 988-1000.

Tuesta, D., Sorensen, G., Haring, A. and Camara, N., 2015. Financial inclusion and its determinants: the case of Argentina. Madrid: BBVA Research.

Tustin, D.H., 2010. An impact assessment of a prototype financial literacy flagship programme in a rural South African setting. African Journal of Business Management, 4(9), pp. 1894-1902.

UK gender pay gap. Gender pay gap explained. Available at: https://gender-pay-gap.service.gov.uk/public/assets/pdf/gender-pay-gap-explained.pdf. Accessed 09-10-2021.

United Nation, Ethiopia, 2020. Socio-Economic Impact of COVID -19 in Ethiopia. Addis Ababa.

United Nations Development Program, 2020. Gender Inequality Index. UNDP. Available at: http://hdr.undp.org/en/content/gender-inequality-index-gii. Accessed 05-10-2021.

United Nations Women (UNWomen), 2014. Preliminary gender profile of Ethiopia. Addis Ababa, Ethiopia. Available at: https://africa.unwomen.org/sites/default/files/Field%20Office%20Africa/Attachments/Publications/2015/12/Preliminary%20Gender%20Profile%20of%20Ethiopia%20Nov%2017%20final%20%28003%29.pdf. Accessed 12-08-2019.

United Nations Women (UNWomen), 2017. Unlocking the Potential of Rural Women in Ethiopia. Addis Ababa, Ethiopia. Available at: https://africa.unwomen.org/sites/default/files/Field%20Office%20Africa/Attachments/Publica tions/2017/11/Rural%20Women%20Publication%20Ethiopia.pdf. Accessed 12-08-2019.

United Nations Women (UNWomen), 2017. Advancing gender equality; Leave no women behind. Available at: https://www.unwomen.org/en/digital-library/publications/2017/3/leaving-no-one-behind-in-action. Accessed 11-09-2021.

United Nations Women (UNWomen), 2018. Gender Gap Analysis of the Public Finance Management system of Ethiopia. Addis Ababa, Ethiopia. Available at: https://africa.unwomen.org/sites/default/files/Field%20Office%20Africa/Attachments/Publications/2018/12/Gender%20Gap%20Analysis-compressed.pdf. Accessed 21-10-2019.

United Nations World Tourism Organization (UNWTO), 2020. International Tourist Numbers Down 65% in First Half of 2020.. [Online], available at: unwto.org/taxonomy/term/347. Accessed 5-10-2020.

United Nations World Tourism Organization (UNWTO), 2020. UNWTO World Tourism Barometer May 2020 Special focus on the Impact of COVID-19. [Online], available at: https://www.e-unwto.org/doi/book/10.18111/9789284421817. Accessed 12-08-2020.

United Nations, ESCAP, 2018. Gender-Responsive Budgeting in Asia and the Pacific. Online available at: https://www.unescap.org/sites/default/files/SDD_GRB_Report_B5.pdf. Accessed 17-10-2020.

United Nations. World Population Prospect. Available at: https://population.un.org/wpp/DataQuery. Accessed: 2-01-2020.

Upadhyay, P. and Jahanyan, S., 2016. Analyzing user perspective on the factors affecting use intention of mobile based transfer payment. Internet Research, 26(1), pp. 38-56.

Van Griethuijsen, R.A., van Eijck, M.W., Haste, H., den Brok, P.J., Skinner, N.C., Mansour, N., Gencer, A.S. and BouJaoude, S., 2015. Global patterns in students' views of science and interest in science. Research in Science Education, 45(4), pp. 581-603.

Van Rooij, M., Lusardi, A. and Alessie, R., 2011. Financial literacy and stock market participation. Journal of Financial Economics, 101(2), pp. 449-472.

Van Rooij, M.C., Lusardi, A. and Alessie, R.J., 2012. Financial literacy, retirement planning and household wealth. The Economic Journal, 122(560), pp. 449-478.

Van den Berg, M. and Kumbi, G.E., 2006. Poverty and the rural non-farm economy in Oromia, Ethiopia. Agricultural Economics, 35, pp. 469-475.

Van der Cruijsen, C., de Haan, J. and Jansen, D.J., 2016. Trust and financial crisis experiences. Social Indicators Research, 127(2), pp. 577-600.

Wale, L.E. and Makina, D., 2017. Account ownership and use of financial services among individuals: Evidence from selected Sub-Saharan African economies. African Journal of Economic and Management Studies, 8(1), pp. 19-35.

Weir, D.R., and Willis, R.J., 2000. Prospects for widow poverty. In: O.S., Mitchell, P.B., Hammond, A.M., Rappaport, eds., 2000. Forecasting retirement needs and retirement wealth. Pennsylvania: University of Pennsylvania Press, pp. 208-234

Wenham, C., Smith, J. and Morgan, R., 2020. COVID-19: the gendered impacts of the outbreak. The Lancet, 395(10227), pp. 846-848.

Woldehanna, T., and Araya, M. W., 2019. Industrial Policy and Late Industrialisation in Ethiopia in Cheru, F., Cramer, C. and Oqubay, A. eds., 2019. The Oxford Handbook of the Ethiopian Economy. Oxford University Press.

World Bank Group, 2013. Global financial development report 2014: Financial inclusion (Vol. 2). World Bank Publications. Available at: http://hdl.handle.net/10986/16238.

World Bank, 2014. Global Financial Development Report: Financial Inclusion. Available at: https://openknowledge.worldbank.org/handle/10986/16238. Accessed 10-12-2018.

World Bank, 2017. Findex questionnaire for financial inclusion. Available at: https://globalfindex.worldbank.org/sites/globalfindex/files/databank/2017%20Findex%20questionnaire.pdf. Accessed 23-02-2019.

World Bank, 2018. Financial Inclusion: Financial inclusion is a key enabler to reducing poverty and boosting prosperity.' Available at: http://www.worldbank.org/en/topic/financialinclusion/overview Accessed 15-12-2018.

World Bank, 2019. Ethiopia Financial Sector Development: The Path to an Efficient Stable and Inclusive Financial Sector. World Bank, Washington, DC. https://openknowledge.worldbank.org/handle/10986/34065 License: CC BY 3.0 IGO."

World Bank, 2020. Monitoring COVID-19 Impacts on Firms in Ethiopia (Vol. 5): Results from a High-Frequency Phone Survey of Firms. Available at: http://documents.worldbank.org/curated/en/939631591634604256/Results-from-a-High-Frequency-Phone-Survey-of-Firms.

World Bank, 2020. Proportion of seats held by women in national parliaments (%) - Ethiopia. [Onlinle]. available at https://data.worldbank.org/indicator/SG.GEN.PARL.ZS?locations=ET. Accessed 19-10-2020.

World Bank, 2020. GDP Growth (annual %) Sub Saharan Africa. Available at:https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=ZG&most_recent_value_desc=true. Accessed 20-09-2020.

World Bank, 2021. GDP. Available at https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?most_recent_value_desc=true.

World Bank, DataBank, 2021. Poverty & Equity Brief, Africa Eastern & Southern, Ethiopia. Online, available at: https://data.worldbank.org/indicator/SI.POV.NAHC?locations=ET

World Bank. 2001. World Development Report 2000/2001: Attacking Poverty. World Development Report. New York.

World Bank. the World Bank Data; GDP Per Capita. Available at: https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD?locations=ET. Accessed 2-01- 2020.

World Directory of Minorities and Indigenous Peoples- Ethiopia: Oromo https://www.refworld.org/docid/49749d2620.html.

Xiao, J.J., Sorhaindo, B. and Garman, E.T., 2006. Financial behaviours of consumers in credit counselling. International Journal of Consumer Studies, 30(2), pp. 108-121.

Xu, L. and B. Zia, 2012. Financial literacy around the world: an overview of the evidence with practical suggestions for the way forward. Policy research working paper; No. 6107. The World Bank.

Yoo, S. and Managi, S., 2020. Global mortality benefits of COVID-19 action. Technological Forecasting and Social Change, 160, p. 120231.

Yoong, J., 2011. Financial illiteracy and stock market participation: Evidence from the RAND American Life Panel. Financial literacy: Implications for retirement security and the financial marketplace, 76.

York et al., 2021. The influence of politics on girls' education in Ethiopia. In Rose et al. (eds.), Reforming Education and Challenging Inequalities in Southern Contexts: Research and policy in international development. Taylor & Francis, pp 98-119.

Zhao, Z., Li, X., Liu, F., Zhu, G., Ma, C. and Wang, L., 2020. Prediction of the COVID-19 spread in African countries and implications for prevention and controls: A case study in South Africa, Egypt, Algeria, Nigeria, Senegal and Kenya. Science of the Total Environment, p. 138959.

Zhou, Y., 2019. Air traffic between China and Africa has jumped 630% in the last decade.

[Online]. Quartz Africa. 2019. Available at https://qz.com/africa/1675287/china-to-africa-flights-jumped-630-in-the-past-nine-years/. Accessed 15-09-2020.

Zins, A. and Weill, L., 2016. The determinants of financial inclusion in Africa. Review of development finance, 6(1), pp. 46-57. Available at: http://www.nber.org/papers/w14808. Accessed: 31-10-2019.

Zissimopoulos, J.M., Karney, B. and Rauer, A., 2008. Marital histories and economic well-being. Research Paper; No. WP18. Michigan Retirement Research Centre.

Zwedu, G. A., 2014. Inclusion, regulation and inclusive growth in Ethiopia. Overseas Development Institute, Working paper 408.

van Esterik-Plasmeijer, P.W. and Van Raaij, W.F., 2017. Banking system trust, bank trust, and bank loyalty. International Journal of Bank Marketing, 35(1), pp. 97-111.

van der Cruijsen, C. and Jonker, N., 2019. Pension profile preferences: the influence of trust and expected expenses. Applied Economics, 51(12), pp. 1212-1231.

van der Cruijsen, C., de Haan, J. and Roerink, R., 2020. Trust in Financial Institutions: A Survey (August 18, 2020). De Nederlandsche Bank Working Paper No. 693, Available at: http://dx.doi.org/10.2139/ssrn.3677835.

van der Cruijsen, C., de Haan, J. and Roerink, R., 2021. Financial knowledge and trust in financial institutions. Journal of Consumer Affairs, 55(2), pp. 680-714.

Özmete, E., 2019. Measuring the poverty of elderly people with needs analysis in Turkey. In Socio-economic Development: Concepts, Methodologies, Tools, and Applications, pp. 256-276.

Appendices

Appendix 1. Financial Literacy and Financial Inclusion Indices

Appendix 1A. Calculating Financial literacy Score.

No.	Question	Dimension	Weight	Ans 1	Ans 2	Ans 3	Ans 4	Ans 5	Ans 6
QL101	level of knowledge about instalments (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL1010	level of knowledge about Weather insurance (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL1011	level of knowledge about Current account (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL1012	level of knowledge about CBE-Birr (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL102	level of knowledge about Savings account (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL103	level of knowledge about Mobile money (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL104	level of knowledge about Digital payment (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL105	level of knowledge about Credit card (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL106	level of knowledge about Microfinance loan (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL107	level of knowledge about M-birr (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL108	level of knowledge about Mortgage (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL109	level of knowledge about Life insurance (1-5)	Financial Knowledge	1	0	0.2	0.4	0.6	1	
QL11	What do you think is the current inflation rate?	Financial Knowledge	1	0	0	1	0	0	0
QL12	Imagine you have 2000br now. After one year, how much would	Numeracy	1	0	0	1	0		

	you be able to buy with this money?								
QL14	Is it possible to open a bank account with less 100 birr	Awareness	1	1	0	0			
QL15	Methods of paying the bills	Awareness	1	0	1	1	0	0	
QL17	Methods of transferring money	Awareness	1	1	1	1	0	1	1
QL22	Do you know what is cryptocurrency?	Financial Knowledge	1	1	0				
QL23	Do you know about opening the stock market in Ethiopia?	Financial Knowledge	1	1	0				
QL25	Methods of saving money during the past 12 months	Awareness	1	1	0	0	1	1	0
QL28	Methods of sending money during the past 12 months	Awareness	1	1	0	1	1	1	0
QL31	Methods of receiving money during the past 12 months	Awareness	1	1	0	1	1	1	0
QL4	Keeping track of expenditure	Awareness	1	1	0				
QL73	Priority of Saving for Emergencies	Financial attitude	1	0	0.2	0.4	0.6	1	
QL75	Priority of Saving for Retirement	Financial attitude	1	0	0.2	0.4	0.6	1	
QL82	Preferred methods of saving: Banks	Financial attitude	1	0	0.2	0.4	0.6	1	
QL9	Assume you deposited 1000 birr in a savings account with 5% interest rate per month. After a year, how much money you would have if you don't withdraw or add any money to your account?	Numeracy	1	1	0	0	0		
QT22	Who does provide your mobile banking service?	Financial Knowledge	1	1	1	1	1	0	

Appendix 1B. Dimensions of Financial Inclusion Index.

No.	Question	Dimension	Weight	Ans 1	Ans 2	Ans 3	Ans 4	Ans 5
QT8	Owning a bank account	Access	1	1	0			
QL1	Presence of regular income	Access	1	1	0			
QL5	Make the ends meet	Access	1	1	0	0	0	0
QL16	Using money transferring services	Usage	1	1	0			
QL19	Having insurance	Usage	1	1	0			
QL24	Saving money during the past twelve months	Usage	1	1	0			
QL27	Sending money during the past twelve months	Usage	1	1	0			
QL30	Receiving money during the past twelve months	Usage	1	1	0			
QL13	Retirement plan	Usage	1	1	1	1	1	0
QT4	Level of being informed about financial services and products	Quality	1	0	0.2	0.4	0.6	1
QT6	Quality of financial services	Quality	1	0	0.2	0.4	0.6	1

Appendix 1C. Dimensions of Trusting the Banking Sector Index.

No.	Question	Dimension	Weight	Ans 1	Ans 2	Ans 3	Ans 4	Ans 5
QT2	Trusting the banking system (5-point Likert scale)	context	1	0	0.2	0.4	0.6	1
QT1	Trusting your own bank (5-point Likert scale)	Trustees	1	0	0.2	0.4	0.6	1
QT3	Trusting the financial advisor (5-point Likert scale)	Trustees	1	0	0.2	0.4	0.6	1
QT4	Being well-informed (5-point Likert scale)	Trustees	1	0	0.2	0.4	0.6	1
QT5	Trusting banks from other regions (5-point Likert scale)	Trustees	1	0	0.2	0.4	0.6	1
QT6	Quality of the banking services (5-point Likert scale)	Trustees	1	0	0.2	0.4	0.6	1
QT16	Will you recommend your bank to your family or friends? (Yes/No)	Trustors	1	1	0			
QT19	Do you trust ATM or electronic banking? (Yes/No)	Trustors	1	1	0			
QT23	Do you trust mobile money? (Yes/No)	Trustors	1	1	0			

Appendix 1D. Dimensions of Narrow-Scope and Broad-Scope Trust Index.

No.	Question	Dimension	Weight	Ans 1	Ans 2	Ans 3	Ans 4	Ans 5
QT16	Will you recommend your bank to your family or friends?	narrow	1	1	0			
QT1	Trusting your own bank (5-point Likert scale)	narrow	1	0	0.2	0.4	0.6	1
QT2	Trusting the banking system (5-point Likert scale)	Broad	1	0	0.2	0.4	0.6	1
QT3	Trusting the financial advisor (5-point Likert scale)	Broad	1	0	0.2	0.4	0.6	1
QT5	Trusting banks from other regions (5-point Likert scale)	Broad	1	0	0.2	0.4	0.6	1
QT19	Do you trust ATM or electronic banking? (Yes/No)	Broad	1	1	0			
QT23	Do you trust mobile money? (Yes/No)	Broad	1	1	0			

Appendix 2. Instructions and Terminology

Background and briefing notes for the University of Jimma team involved in implementing the questionnaires via one-to-one interviews in Jimma City and its surrounding areas, Oromia, Ethiopia.

Background

The aim of this research, which is part of workstream 3.2 of a wider ESRC-funded project, is to explore the role of trust and financial education on access to and use of financial services. SOAS's research explores the impact of community education, gender, financial technology (FinTech) and community knowledge and experience on financial inclusion. To this end, we plan to collect primary data on over 450 individuals in Oromia, Ethiopia. These data will be used to analyse the factors shaping access and use of financial services.

Questionnaires have been drafted in English for translation into local languages, and a sample frame is drawn up for discussion/implementation. We aim to collect over 450 responses to our questionnaires through face-to-face interviews.

Over a period of 2 months, weekly meetings will be held to finalise the sample frame and questionnaires. Guidance and training will be provided on interview techniques. A pilot will be carried out for a sample of 50 respondents. After discussion and any revision of the questionnaires, the full sample will be collected. Regular meetings will be held as the data collection progresses.

The regular meetings discussed different aspects of sampling and question adaptation for the local context. In addition to guidance given in these meetings over the course of several months, the following summary instructions were provided for interviewers.

Instructions for Interviewers

The interviewers will contact the people to interview according to the sample frame. After describing the aims of the survey and the required time to complete it, the interviewers should ask individuals to take part in the survey. Interviewees should not be put under any pressure to participate and should give informed consent. The interviewee must be reassured that his/her responses are confidential. Before starting the interview, signing the Data confidentiality statements should be provided to participants and followed accordingly. The questions should be read out loud by the interviewer; therefore, there is no need for interviewees to be literate. The interviewer should not read options such as "don't know" or "I prefer not to answer"; if the interviewee's answer meets one of these options, this response should be recorded accordingly.

Since this survey is going to be conducted at the individual level, the interviewee should be advised to answer regarding his/her own personal state and views rather than that of the household and/or the breadwinner.

The questionnaire forms should be completed during the interview by hand. Please note that for validation purposes, it is very important to retain hard copies of the completed questionnaire forms.

Post Interview Instructions

After the interviews and questionnaires forms have been completed:

1. The forms should be scanned in securely, and the files must be password protected. The scanned files should be sent to SOAS; and

2. The responses should be entered in the Excel Template provided by Maryam Sholevar.

Terminology

Budgeting: The process of creating a plan to spend your money.

Cryptocurrency: A type of currency which uses digital files as money. Cryptocurrency is a digital or virtual currency that is secured by cryptography, which makes it nearly impossible to counterfeit or double-spend.

Financial asset: An asset that whose value derives from a contractual right or ownership claim, for example, cash, deposits, and bonds.

Financial attitude: A person's attitude to short-term vs long-term thinking, also, defined as a state of mind, opinion, and judgment of a person about finances (Pankow, 2012).

Financial Awareness: Awareness of financial products and services and use of financial services and products.

Financial behaviour: Any human behaviour that is relevant to money management (Özmete, 2019).

Financial goals: The personal, big-picture objectives individuals set for how they will save and spend money.

Financial inclusion: Financial inclusion is a two-sided process, requiring the provision of appropriate financial products on the supply side and awareness and use of those products on the demand side.

Financial knowledge: Knowledge of financial concepts and the ability to use numeracy skills in making financial decisions.

Financial literacy: Financial literacy is defined as awareness and knowledge of available financial services. It includes the capacity to translate essential financial needs into potential financial inclusion. This concept is characterised by the demand and supply sides. Awareness and need are related to the demand side, while the supply side encompasses the availability of financial services (Sholevar and Harris, 2019).

Financial resilience: The ability to cope financially when faced with a sudden fall in income or an unavoidable rise in expenditure (Mainwaring, 2020).

Financial shock: Any unforeseen event that has a large-scale, sudden influence on the financial situation of a person and/or economy.

Financial well-being: The perception of being able to sustain one's current and anticipated desired living standard and financial freedom (Brüggen et al., 2017). Financial literacy is one factor contributing to a person's financial well-being.

Household: A household is composed of one or more people who occupy a housing unit.

Inflation rate: The rate of change in prices of bundles of goods.

Insurance: It is a financial product that people buy to protect themselves from financial loss.

Interest rate: An interest rate is a percentage charged on the total amount you borrow or save.

Keeping track of cash flow/cash flow management: Tracking financial activities and following expected costs and comparing them with any receivable money.

Life insurance: Life insurance is a contract between you and an insurance company. Essentially, in exchange for your premium payments, the insurance company will pay a lump sum known as a death benefit to your beneficiaries after your death (Chorpenning, 2020).

Liquid asset: A reference to cash on hand or an asset that can be readily converted to cash.

Living expenses is the amount of money needed to cover basic expenses such as housing, food, taxes, and healthcare in a certain place and time period.

Making ends meet: To have enough money to cover the expenses.

Meet the living expenses: Being able to pay for the living expenses.

Retirement plan: A savings plan for old age.

Savings club: A savings club is a group of people who combine their savings by making weekly/monthly/yearly contributions. This money could be borrowed by each member of the group according to an agreed-upon schedule.

Securities: A type of investment that allows you to own things without physically holding onto them. Examples: stocks and bonds Stocks (Stobierski, 2018).

Stock market: It refers to the collection of markets and exchanges where regular activities of buying, selling, and issuance of shares of publicly-held companies take place.

Stocks: A stock (also known as equity) is a security that represents the ownership of a fraction of a corporation.

Trust (financial institution): A Trust is a way of managing assets (money, investments, land or buildings) for people. (This concept is subject to the further discussion in the training sessions).

Trust (relational concept): The extent to which one party perceives another as reliable or has confidence in another.