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ACCESS TO FINANCIAL INCLUSION: EVIDENCE FROM SOUTH-ASIAN LOWER MIDDLE-INCOME COUNTRY, BANGLADESH

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by

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Abstract

Individuals may become financially vulnerable due to a lack of financial inclusion and services leading to a bad impact on a country's economy. Earlier research suggests only limited studies were conducted on Bangladesh, a South Asian lower-middle income nation in case of formal finance. This study examines access to financial inclusion of Bangladesh where the analysis from 2017 Global Findex Dataset depicts the status of financial inclusion on different demographic segments. The findings show that larger usages of formal accounts, savings, and credits are strongly correlated with higher earnings and better education. Men and people in the working age range (25 to 54) have greater access to financial inclusion. In Bangladesh, borrowing from informal sources (e.g., family, relatives, or friends) is very common. The study offers evidence on account ownership, formal credit, formal saving in Bangladesh. It also discusses obstacles to financial inclusion and personality traits linked to financial exclusion.

Keywords: Account ownership, financial inclusion, formal credit, formal savings, financial exclusion.

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1. Introduction

The availability of financial services is crucial for eradicating poverty and achieving mutually aggregated prosperity because it provides individuals access to the modern economy (Uddin et al. 2017). Financial inclusion constitutes one of the most significant challenges facing the world, particularly in the least developed nations. Financial exclusion is considered one of the socioeconomic problems that many industrialized and emerging nations have already addressed. One of the aims that the World Bank has set for itself for the year 2020 is to achieve broad access to financial services (Demirgüç-Kunt and Klapper 2012; Demirgüç-Kunt, Klapper, Singer, Ansar, and Hess 2020; Mhlanga 2021), but it needs to be measured how much goal is achieved by this year. One important message delivered from the 2017 Global Findex report is that “digital technology is propelling financial inclusion around the world, enabling millions more people and businesses to join the global economy for the first time” (The World Bank, 2017, Pg 26). However, a study conducted by World Economic Forum finds that in just 89 (60%) of the 149 countries, women and men have equal access to financial services (World Economic Forum Report, 2017). Similarly, the 2017 Global Findex report shows that a global gap of seven percentage points exists between financial services usage among men and women, where 65 percent of women use an account compared with 72 percent of men. This disparity has largely continued to be unchanged since 2011.

Prior studies have shown that having access to financial services like a bank account does not guarantee that a person will use those services efficiently (Demirguc-Kunt et al. 2013). Women inevitably encounter additional hurdles, such as inadequate financial literacy, which restricts their usage of financial services. Particularly women in the least developed nations of the world require assistance with financial literacy in addition to financial access to lessen the gap in financial inclusion. They need to make maximal use of the financial services that are provided. While the role of financial inclusion in formal financial services is widely recognized, relatively little is known about financial inclusion in terms of gender, working age, income, education, and employment. Several studies use data from the World Bank's Global Findex database from 2011 to examine financial inclusion.

Demirgüc-Kunt and Klapper (2013) examined 148 various countries' utilization of financial services. They examine personal and societal factors connected to the three main financial inclusion indicators of having a bank account, saving money in a bank account, and using bank credit. Little research now has specifically addressed financial inclusion in Bangladesh, one of the South Asian rising economies, where the drive for financial liberalization and advancement continues to remain vigorously. By incorporating information from the Global Findex database of the World Bank, this paper seeks to close this gap.

The significance of this topic is influenced by four main arguments that are currently taking place: account ownership, formal savings, formal credit, and challenges to financial inclusion in Bangladesh. In my research, I first consider the degree of financial inclusion in Bangladesh in terms of gender, working age, income, education, and employment. Financial inclusion has been proven to considerably contribute to promoting growth in undeveloped and emerging countries, therefore this issue has to be examined in the context of Bangladesh (Uddin et al. 2017). Second, Bangladesh's poor employment and illiteracy rates contribute to its extremely low saving rate. People are not motivated to save money in formal financial institutions (Aziz and Naima, 2021). Furthermore, the social and religious norms of Bangladesh aren't conducive to the establishment of savings. Tt's imperative to make a detailed assessment in order to determine if people are holding their own money in formal ways, such as saving in their personal bank accounts, or in informal ones, such as purchasing assets, gold, etc. Third, as bank loans for businesses and individuals become less common, alternative borrowing strategies are being used more frequently in Bangladesh (Aziz and Naima, 2021). Finally, it's critical to carefully consider the causes of Bangladesh's financial exclusion. The growth of Bangladesh's informal banking system raises concerns about how well Bangladesh's banking regulations are working in relation to overall financial stability. The study of financial inclusion indicates individual characteristics associated with dependence on different other sources of funding and enables us to fully understand the extent to which formal savings, formal credit, alternative sources of borrowing, and reasons for financial exclusion are used in Bangladesh.

Financial inclusion has long been an aim in Bangladesh to give previously disadvantaged groups and populations access to formal finance. Microcredit served as the starting point for this journey, which has since broadened to cover all aspects of financial inclusion, from access to utilization and consistency. Despite these initiatives, data from the Global Findex survey reveals that as of 2017, about one-third of all adults in Bangladesh still lacked a bank account, with women from low-income rural households or those who were unemployed making up about half of this group. Between 2011 and 2017, there was little movement in Bangladesh's gender account ownership disparities (Siddik et al., 2017). By utilizing the World Bank's Global Financial Inclusion Database (Global Findex, 2017), this study aims to investigate the impact of factors such as gender, working age, employment, income, and education on the level of account penetration and ownership. The study will also analyze Bangladesh's financial inclusion's major indicators (formal accounts, formal saving, and formal credit) and identify its challenges toward financial inclusion. Furthermore, the study will assess the potential of these variables to promote greater access to financial inclusion in the country.

2. Worldwide access to financial services: an overview

During the early 2000s, the term ‘Financial Inclusion (FI)’ acquired significance as a result of research about the lack of financial inclusion and its relation to poverty. Policymakers are paying it more attention because of its ability to support essential development goals like economic expansion and greater social welfare. Due to the involvement and support of international organizations, significant advancement has been made in expanding financial inclusion up until now. There is still more work to be done for greater inclusivity. Four primary factors allow us to measure the prevalence of financial inclusion worldwide:

- Penetration of an account.
- Usage and access to accounts (i.e., how do people receive and make payment?).
- Savings methods (i.e., how do people save?)
- Loan sources (i.e., from whom do people borrow money?)

2.1. Penetration of an account

Global Findex reports that 62% of adults worldwide reported having an account in 2014, up from 51% in 2011(Akter, 2016). This growth is being driven by both improved technology and a 13-percentage increase in ownership of accounts in developing nations. Between the years 2011 and 2014, approximately 700 million new accounts were opened at banks, other financial institutions, or companies that provide mobile money services. It decreased the number of those without access to basic financial resources by 20%, or from 2.5 billion individuals to 2 billion adults (Akter, 2016).

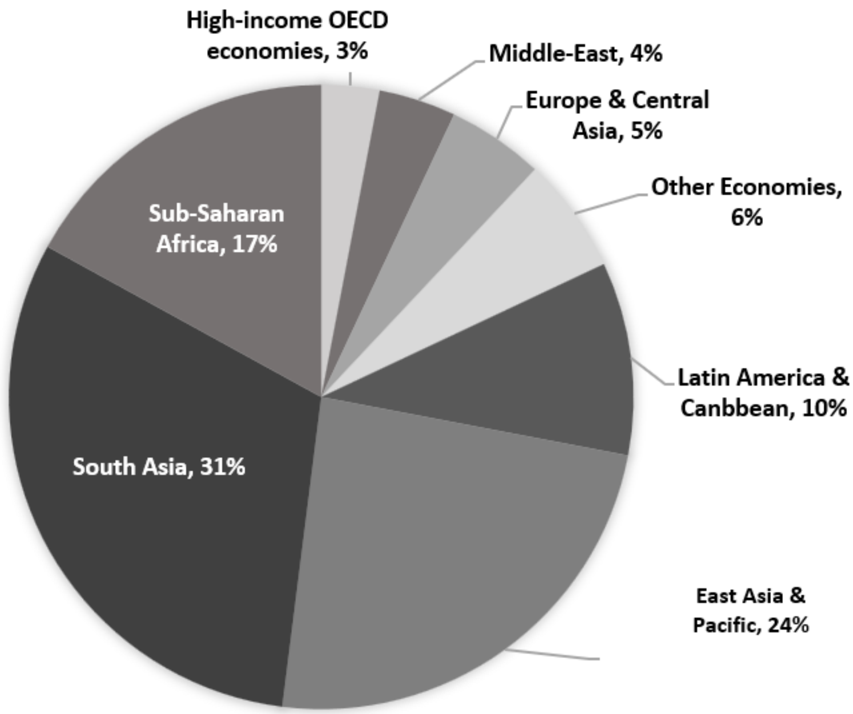

Figure 1: The world's unbanked adults by region. Source: The Global Findex Database, 2014

The unbanked adult population globally is depicted in the above graph. The graph indicates that South Asia has the highest percentage of adults without bank accounts worldwide. Around 980 million women globally lacked a bank account in 2017, making up 56% of the unbanked population. Regardless of the countries with the lowest prevalence of unbanked people, women make up a sizeable portion of the unbanked population. In addition, the gender gap in account ownership remained substantially unchanged. Compared to 2011, when 54% of men and 47% of women had accounts, in 2014, 65% of men and 58% of women had accounts. In terms of gender disparity per region, South Asia has the largest ratio of 37% women to 55% men.

2.2. Access and usage to accounts

Three-quarters of adult account holders (46% of the adult population) indicated that they utilized their account for making and receiving payments globally. There are 460 million inactive accounts and 380 million accounts with minimal activity among adults globally. These 840 million persons make up a quarter of all adults with accounts. 58% of account holders, or more than 1 billion individuals worldwide, pay their water, energy, and trash bills in cash. More than 500 million people in underdeveloped countries who have accounts pay the cost of their children's tuition using cash. In comparison, just 41% of wage receivers in underdeveloped countries said they received their income into an account. According to this, there is clearly scope for improving account utilization. Around the world, 130 million adults live entirely devoid of government assistance (Akter, 2016).

2.3. Savings behavior

On a global scale 72.6% of adults do not save money at a bank. A majority of (56%) the 1.2 billion individuals in developing nations claimed they have no savings accounts. In 2014, 52% of individuals in OECD (Organization for Economic Co-operation and Development) countries and 40 percent of adults in developing economies reported having formal savings at a bank or other sort of financial institution (Akter, 2016).

2.4. Loan sources

In 2014, 44 percent of adults worldwide (excluding those who used credit cards) reported getting money informally or formally. It was reported that 18% of adults in OECD countries borrowed from financial institutions, compared to 14.9% from friends and family. On the other hand, in developing economies, 29% of respondents reported borrowing money from family and friends, compared to 9% who said they had borrowed money from a financial organization. Although a few low-income countries (10 countries) have made progress in launching mobile accounts and accounts in conventional financial institutions, they are still far behind when it comes to access and usage of those accounts (Akter, 2016).

2.5. Research problem

Bangladesh is a predominantly rural based country, and its economy is mainly agrarian. Although women constitute half of the population, the majority of them are marginalized and face discrimination in all sectors of society. Rural areas, and especially rural women, are excluded from financial services because the majority of modern financial institutions and facilities with bank and credit activities are located in urban regions. The male-controlled society has put a dominance and authority on women's potential, capabilities as well as self-possession due to their economic dependence on men counterparts. Despite discussions about financial inclusion, many people in Bangladesh still lack access to basic financial services. The percentage of unbanked persons is still alarmingly high regardless of government attempts. According to a World Bank estimate from 2014, more than half of adults worldwide currently do not have access to formal financial services. Of them, women, marginal farmers, disadvantaged groups and informal sector enterprises are affected the most in this case. Besides gender, income, education, age, and employment work as a determinant factor of financial inclusion in Bangladesh. However, the issues concerning gender gap, age, income, employment, and literacy in the formal financial sector have not been significantly examined in the previous literature. This gap must be bridged if equal involvement of men and women, age differences, income, employment, and literacy could be ensured for the inclusion of more people in the formal financial market in Bangladesh.

2.6. Financial inclusion: scenario of Bangladesh

Financial inclusion is the process known as providing banking and financial services to people. By offering essential financial services, it aims to include everyone in society, regardless of their income or savings.

Table 1: Bangladesh's general access, account use, and account ownership situation, Source: Financial Inclusion: The Little Data Book, World Bank 2015

Financial Access Indicator	Value, (% of population age 15+)		
	Bangladesh	South Asia	Developing countries
Account ownership all adults	31.0	46.4	54.1
Account ownership women	26.5	37.4	49.6
Financial institution account	29.1	45.5	53.1
Mobile account	2.7	2.6	2.5
Used an account to receive wages	1.6	3.5	11.2
Use an account to receive government transfer	0.4	3.1	6.0
Used a financial institution account to pay utility bills	0.7	2.7	7.2
Has a debit card	5.2	18.0	31.2
ATM is the main mode of withdrawal (% with an account)	7.5	31.1	49.7
Used a debit card to make payments	1.0	8.5	13.6
Used a credit card to make payments	0.2	2.6	8.1
Used the internet to pay bills or make purchase	0.4	1.2	8.4
Saved at a Financial Institution past year	7.4	12.7	22.5

In addition to the traditional banking sector, Bangladesh's underprivileged citizens can access a variety of financial services through cooperatives, microfinance organizations, and other government and non-government financial institutions. It places a strong emphasis on providing financial assistance for the economically disadvantaged and aims to guarantee that the poor and marginalized people make the greatest use of their resources. Bangladesh has developed from a low-income agrarian civilization to a lower middle-income country, from a population of 170 million after its independence in 1971. Financial inclusion measures started even before the country gained independence, but it has taken a long time to include the different demographic segments of the population that had previously limited access to formal finance. This journey first started with microcredit and has evolved to cover all aspects of financial inclusion. After independence, several government safety net programs and the initiatives of a leading NGO, BRAC (Bangladesh Rural Advancement Committee), continued the process of integrating the underprivileged population into various financial benefit programs. The establishment of Grameen Bank in 1983 by government legislation has paved the way for increased prosperity of the microfinance sector in the country. Lately, to establish an integrated goal and a range of financial solutions, the Bangladeshi government released its National Financial Inclusion Strategy (NFIS).

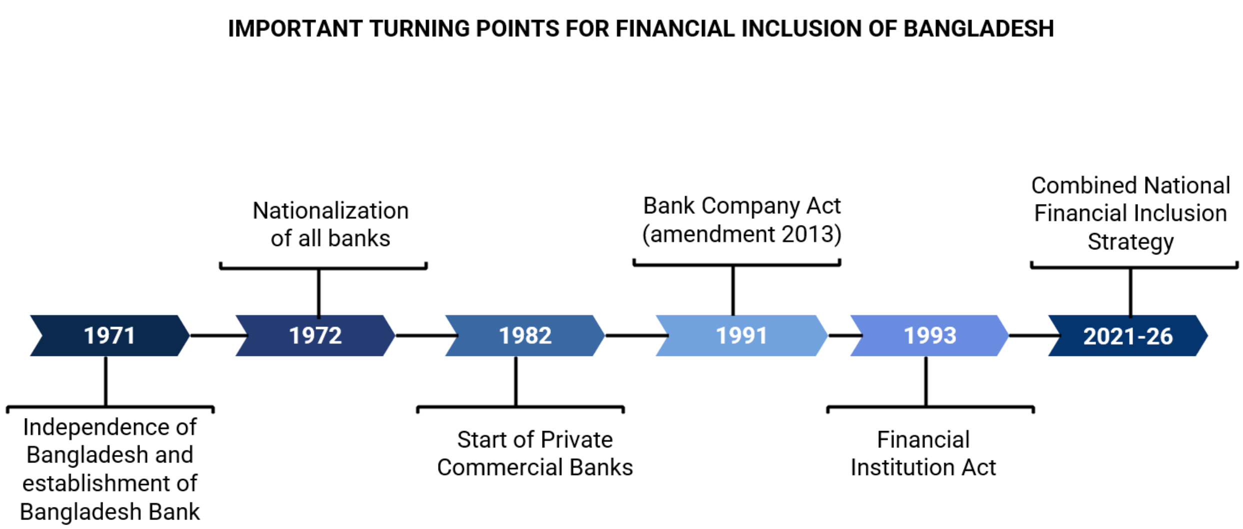

Figure 2: Significant transitions of financial inclusion in Bangladesh

Three common challenges are the hardest to address when attempting to expand financial inclusion in Bangladesh:

- **Difficulty-to-access locations**: Remote, hilly, narrowly populated areas with challenging terrain, as well as impoverished regions with insufficient infrastructure.

- **Demand-related obstacles:** Low wages, a lack of financial education and awareness, social marginalization, and other barriers prevent certain people from taking advantage of economic opportunities.

- **Supply-led restrictions:** Bank branches in remote locations, inconvenient hours, requirements for documentation and processes, a lack of specialized products and inconvenient delivery methods, and issues include a communication gap between service providers' employees and clients.

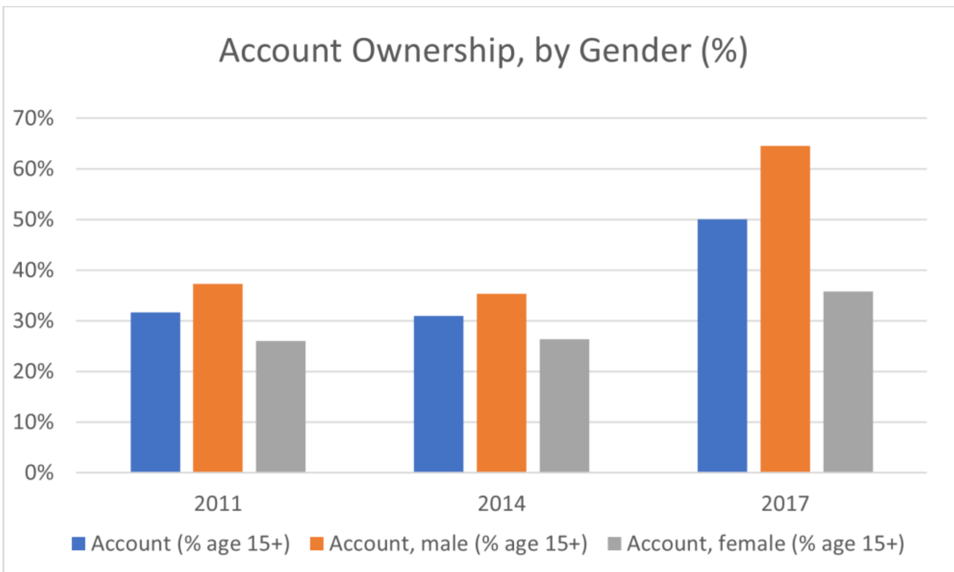

Figure 3: Account ownership, by gender (%). Source: Own illustration based on Global Findex 2017

In addition, Bangladesh's gender gap in financial access extened 20 percentage points from 2014 to 2017. Global Findex dataset shows that, only 36% of Bangladeshi women have accounts in 2017, compared to 65% of men. In addition, the country has been experiencing quick improvements in internet and mobile connectivity, which has spurred the rise in the number of people who own mobile money accounts. Only 32% of people in 2010 were subscribers to mobile services. This percentage increased in 2017 to 54%. Despite this, there is still a lot of potential for development. In Bangladesh, more than 70 million people still do not use any mobile services at all. However, a new class of service providers now has greater opportunities to contact customers with financial services because to the rising prevalence of cell phones.

The country's development strategies recognize that if increased financial services are not made available to all citizens, national development will be hampered. The Government of Bangladesh has consistently prioritized financial inclusion, starting with a range of both domestic and global commitments. The government's 7th Five Year Plan emphasizes ‘No One Left Behind’ while also highlighting efforts to create and promote low-cost methods of banking, money transfer, including safety net payments and foreign remittances, credit, including microcredit, and insurance, including agricultural product, medical, life, and disaster insurance, are available right at the doorsteps of the public (7th Five Year Plan of Bangladesh 2016-2020) . These pledges also advocate the National Social Security Strategy, the Alliance for Financial Inclusion, and the Sustainable Development Goals (SDGs).

Despite the government's continuous progress toward its financial inclusion targets through the implementation of initiatives aimed to reach people who are financially excluded, 45% of Bangladeshis still do not have access to formal financial services (Akter, 2016). The government and the World Bank's collaborative initiatives to achieve universal financial access have been impeded by high interest rates, a large rural population, a gender gap, and a low literacy rate, among other significant problems. However, less inclusive financial institutions result in greater income inequality and lower economic expansion. Financial inclusion is therefore essential for the national economy and in enhancing welfare among the underprivileged people.

Fry (1982) demonstrates in his research how the largely accepted financial repression argument put out by Mckinnon and Shaw (1973), which is defined by artificially low interest rates, limits savings and inhibits investment, impeding economic progress. Interest rates are relatively low in formal institutions in Bangladesh compared to informal and private banking, which deters people from making formal savings.

I concur with the points made by Mckinnon and Shaw in 1973. According to them, Government laws and policies, such as monetary policy controls on interest rates and prohibitions on financial transactions, cause financial system inefficiencies in financially depressed economies. Because people earn smaller returns on their savings because of the low rates of interest, people are less likely to save. As a result, the economy's overall savings are less than they should be. According to Mckinnon and Shaw's (1973) justification, increased interest rates would provide better rewards for savers, motivating them to increase their savings. The additional savings might subsequently be used to fund profitable projects, so promoting economic expansion (Chowdhury, 2001).

2.7. Research questions

In my research, I take into account a number of questions, including: (1) Is there a difference in access to financial services and inclusion between men and women? (2) What is the influence of working age, income, education, and employment status on individuals' access to financial account ownership? (3) To what extent do individuals in Bangladesh rely on formal credit and other sources of borrowing? and (4) What are the main factors that contribute to financial exclusion in Bangladesh? The study employs a quantitative approach to provide a detailed methodological inquiry into an intricate scenario of financial inclusion in a socio-economic environment in Bangladesh.

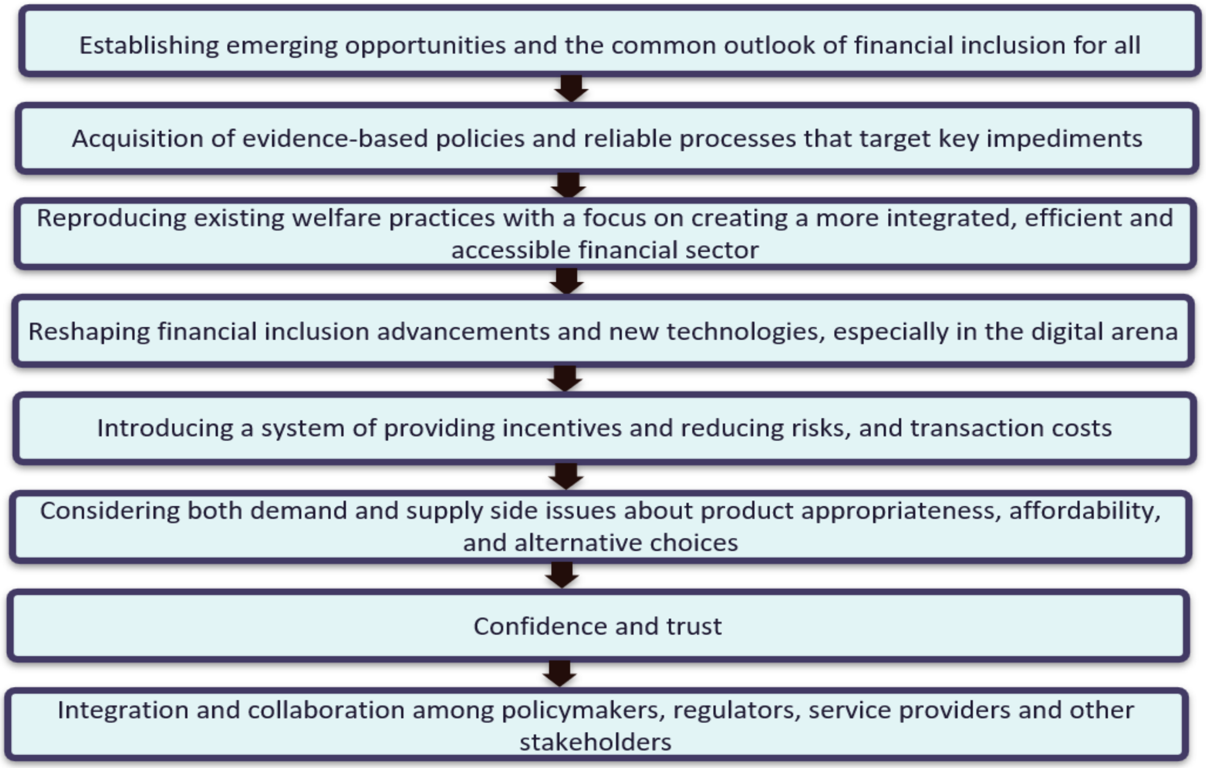

Figure 4: Key considerations in financial inclusion for Bangladesh

2.8. Components of financial inclusion

The main components of digital financial inclusion that I am considering in this study are highlighted in Figure 5. Together, these elements constitute an inclusive financial system. Affordable credit, bank accounts, savings, usage, access to services, and financial advice are included in the aspects.

Figure 5: Components of financial inclusion

3. Literature review

This chapter provides an analysis of the body of research on financial inclusion in Bangladesh with a focus on accounts ownership on the aspects of (gender, education, age, employment, and income), formal savings, formal credit, and impediments to financial inclusion. The literature review tries to construct a theoretical and conceptual framework for understanding the barriers faced by different demographic segments and the factors affecting financial inclusion in the context of South Asia's lower middle-income nation.

3.1. Conceptual framework of financial inclusion

The overview of the literature starts with a discussion of the theoretical underpinning of financial inclusion in order to build the foundation for the investigation. The relevance of access, use, quality, and cost of financial services is emphasized as it examines several definitions and characteristics of financial inclusion. The study highlights the various aspects of financial inclusion as well as how crucial it is for promoting equitable economic growth and reducing poverty.

3.2. Financial inclusion

The World Bank's definition of financial inclusion for the year 2022 includes "having access to essential and equitably priced financial products and services that satisfy demands, paying bills, transactions, saving, credit, and insurance provided properly and effectively." According to the World Bank (2022), having access to a transaction account is one of the first steps toward greater financial inclusion. This account gives users the ability to store money, as well as send and receive payments. The World Bank Group (WBG) continues to place a high focus on ensuring that everyone has access to a transaction account because it acts as a gateway to other financial services (World Bank 2022).

3.3. Determining factors of financial inclusion

3.3.1. Account ownership

The study of the literature looks at the major variables affecting financial inclusion in Bangladesh. The impact of socioeconomic variables, such as income levels, employment status, education, working age, and gender dynamics, is examined. The evaluation of this study shows how vital it is to solve these issues in order to improve financial inclusion and decrease inequities in the accessibility of financial products and services.

Numerous studies have been conducted to find the nature, consequences, and solutions for financial exclusion. Factors that determine the level of inclusion have also been studied. But most of them are either on a cross-country basis or based on a single country whose socioeconomic dimension significantly differs from Bangladesh. The most recent and most cited cross-country study on the determinants of financial inclusion was conducted on Asian developing countries by Park and Mercado (2015). The authors found that per capita income, rule of law, and demographic characteristics like literacy rate and age dependency ratio dominantly affect financial inclusion in developing countries of Southeast Asia. Their study is primarily based on the financial access indicator developed by Honohan (2008). Findings of this study highlight to increased financial inclusion, decreased income inequality, and decreased poverty as benefits of stronger rule of law, including the execution of financial agreements and financial security, and allowances for young and old-age populations, such as pensions for retirement.

Gender disparity is a significant problem for financial inclusion. According to Fanta et al. (2015) men are regarded more favorably than women when in getting access to credit facilities in the developing countries, and applicants of minority and women worry that they will be regarded less favorably because of their dependability This was further supported by Beck et al. (2011), who found that female borrowers had a lower chance of obtaining a loan when the loan officer is a man. Even after accounting for a wide range of personal traits like income, education, employment status, rural domicile, and age, Demirgüç-Kunt et al. (2015) found that there is a gender disparity in financial inclusion.

Aterido et al. (2013) investigate how households and businesses in Sub-Saharan Africa use financial services differently depending on their gender. In terms of individuals, women exhibit a lower rate of formal financial sector participation, mostly as a result of lower scores in areas like education, formal employment, and household position that are connected to financial service usage. The results are in line with gender disparities; women are more likely than men to mention personal problems including a lack of a formal employment or source of money.

Demirgüç-Kunt and colleagues (2013) analyze the level of the individual data from 98 developing nations to look at gender inequalities in the utilization of financial services. Gender continues to have a considerable impact on the use of financial services even after considering other variables including age, income, education, and employment position. The study contends that gender norms and legal restrictions against women both contribute to the inequalities in women's access to finance across nations. Particularly, nations where there are constitutional constraints on women's rights in relation to employment, household leadership, domicile choice, and inheritance show lower rates of ownership of accounts, savings, and borrowing for women than for males. Even after adjusting for other individual and national-level characteristics, gender norms such as the prevalence of aggression against women and early marriage contribute to the differences in financial service utilization between men and women. Although, women represent a significant portion of the population and their contributions to the economy are often underestimate. Paramanandam and Packirisamy (2015) claimed that economic progress would not be possible without developing women. If they are provided with technical knowledge, skill training, and marketing approaches when starting a business, these women would act as the critical factor for more sustainable financial development.

The advancement of financial inclusion depends heavily on education. People can acquire the information and abilities they need to make wise financial decisions through education. Understanding budgeting, investing, controlling debt, and saving money are all necessary for making sound financial decisions. Financial education helps to break down the barriers of financial exclusion by providing people with the knowledge they need to understand financial goods and services. This increases their self-assurance and motivates them to interact with financial institutions. Khalily (2016) investigates the connections in Bangladesh between financial inclusion, regulation of finance, and education. Access to financial services and the depth of financial development have both increased over the last few years. This study looked at regulatory practices empirically and assessed how financial literacy affects financial inclusion. Based on their analysis of household-level data, they found that Bangladesh has relatively low levels of financial literacy, which is not advantageous for inclusive finance.

By leveraging data from the World Bank's Global Findex database, which includes information on 37 African nations, Léon et al. (2020) study the factors that influence financial inclusion in Africa. The findings indicate that financial inclusion is significantly influenced by income and education, with age, wealth, and gender having a positive influence as well. They also show that while certain barriers are related to gender, most of them are negatively related to education.

Factors like an unstable economy, fragile rule of law, high discrimination in income, undeveloped social structure, and regulations play a significant role to limit financial access. Using the same indicator as Honohan (2008), Rojas-Suarez (2010) extended the importance of numerous macroeconomic and country characteristics to identify the growth of emerging economy countries. The results demonstrated relative outcomes.

To recognize the additional factors of financial inclusion, a few specific country-level studies have also been conducted. With the help of panel fixed effects, Kumar (2013) attempted to identify the status and determinant factors of India’s financial inclusion. His findings indicate that geographical region and accessibility affect the level of financial inclusion for a specific section of the population. In another country-level study on Argentina, Tuesta et al, (2015) used microdata from surveys to suggest that vulnerable groups of women and people living in rural areas have little access to financial services. In addition, age, gender, education, and income level can act as critical factors for individuals to perceive whether to use formal financial services or not.

Sarma (2008) constructed an index for financial inclusion to draw a unified determinant for all countries, but country-specific regulations acted as the resistant factor for such a purpose. Different financial regulations in various nations result in various features and general preferences regarding financial inclusion (Kempson et al., 2004; Kendall et al., 2010; Sinclair et al., 2009; The World Bank, 2008a). However, I have found a lack of literature to find the critical determinant factors behind the level of financial inclusion in Bangladesh. The main aim of this study is to fill the gap in the literature by identifying the country-specific major determinants and reasons behind the gender gap, age differences as well as roles of literacy of financial inclusion in Bangladesh.

3.3.2. Financial inclusion and formal saving

The key determinants of financial inclusion and financial resilience in Africa were studied by Tinta et al. (2022). Individual characteristics, financial literacy, and innovation worked as the primary determinants for African people to choose a traditional or mobile account. They claim that women, younger people, and persons living in rural areas are more likely to engage in informal savings. However, formal savings are more prevalent in metropolitan areas and among older people. Additionally, a higher level of education and money serves as a driving force for people to transition to formal savings.

Dasgupta (2009) posited that widespread financial access to savings and other monetary products would help the poor community by elevating their financial ranks in addition to improving their overall living standard. Grameen Bank, a microfinance institution and community development bank, is one of the best examples of how to successfully create jobs for women in Bangladesh, according to Hossain et al. (2015). The poverty-focused initiative scheme assisted in increasing rural women's income, however according to the author Hossain et al. (2015), the policy and practices of such an approach created controversy.

Uddin et al. (2017) investigates the elements that affect financial inclusion within Bangladesh and illustrates the obstacles that both the government and the World Bank must overcome to provide everyone with access to the financial system. Using data from 25 Bangladeshi banks, the study uses econometric analysis to discover that bank-specific factors like dimensions, effectiveness, and interest rates have an impact on financial inclusion. On the side of demand, literacy rates have a positive impact on inclusion, whereas the ratios of age dependency have a detrimental effect. The report also underlines how crucial it is for emerging nations to invest in their human capital in order to increase financial sector participation and promote economic growth.

3.3.3. Financial inclusion and formal credit

According to Zins et al. (2016), women's informal and formal saving patterns in Africa are affected differently depending on their gender. Women typically rely more on informal financing than men do to save money, even though their involvement in official saving is significantly lower. Credit, on the other hand, is not affected by this gender disparity. Women's access to informal credit is found to be less impacted by their gender than their participation in formal credit. The beneficial correlation with saving is mostly found with formal saving, while the favorable correlation with education is positive with both formal and informal credit. The findings of this study show how crucial it is to consider factors like gender and education when trying to understand how formal and informal financial patterns are evolving in African circumstances.

To investigate how Chinese households used credit, Chen and Jin (2017) looked at data from the 2011 China Household Financial Survey. Only 19.77% of the sample used official credit sources, according to the findings, while only more than half (53.21%) claimed to utilizing credit. The utilization of formal credit was discovered to be correlated with household parameters like income and value of assets as well as socioeconomic characteristics like job and education. The results highlight how crucial it is to advance financial inclusion in China by increasing access to formal credit, especially for households who are socially and economically disadvantageous.

Fungácová and Weill (2015) illustrates in China, official credit is less established, and informal borrowing which comes from family or friends is more widespread. Income, education, male and getting older all have positive correlations with formal account ownership and formal credit utilization. These factors help people become more financially literate. Although China has a high level of financial inclusion in general, the study finds that the country's low use of formal lending makes continued economic growth challenging.

Research was undertaken in Egypt by Rashdan and Eissa (2020) to examine the variables affecting financial inclusion. They discovered no definitive connection between gender and the degree of financial inclusion. However, those who are older, better educated, and more wealthy are significantly more represented in the financial system. They also discovered that the main barrier to financial inclusion in Egypt is a lack of resources. As a result, opening a formal bank account, savings account, or credit account is challenging.

3.3.4. Barriers to financial inclusion

Demirgüç-Kunt and Klapper (2012) studied financial behaviors on adult individuals among 148 economies. According to the findings, 50% of adults worldwide hold an account with a formal financial institution, but the extent of account penetration varies greatly between countries, income levels, and personal traits. Furthermore, 22% of individuals claim to have saved money at a formal financial institution in the previous year, and 9% claim to have obtained a new loan from a bank, credit union, or microfinance organization. Despite these statistics, 35% or more of adults worldwide do not have a bank account; they identify barriers that may be removed by government action. Nearly 50% of adults worldwide do not have a bank account. The difficulties that are most frequently mentioned are high fees, a lack of adequate documents, and being far from financial services.

Anyangwe et al. (2022) study has shown that role of culture plays as a determining factor of financial inclusion. Their study demonstrates that cultures with higher levels of masculinity and significant disregard for uncertainty are less likely to be economically integrated. According to them, live in more individualistic, long-term-focused, liberal, and compassionate increases one's chances of attaining financial inclusion.

The term "financial exclusion," according to Leyshon and Thrift (1995), is used to describe actions that are undertaken to limit individuals and members of particular socioeconomic categories' access to the official financial system. Exclusion may be caused by a variety of things, such as problems with access, external events, price, marketing, or more. As defined by Buckland (2012), the definition of the phenomenon known as financial exclusion is the lack of access to financial services. Exclusion is based on a variety of factors and can take numerous forms. One's location, the price of a service, as well as their level of knowledge and education regarding the advantages of financial services, can all be considered among these variables. If individuals or groups in a society have limited access to formal financial services for a number of factors, some of which can be viewed as discriminatory, they can find themselves financially excluded from that society (Cicchiello et al. 2021).

This study examines the significance of financial inclusion, identifying accounts ownership, formal savings, formal credit, and barriers to financial inclusion for developing a nation's financial roadmap, but there is still not enough literature that combines all four components of financial inclusion into a single cohesive entity. This study will aid the researcher in changing course and concentrating on paying closer attention to this area of study.

4. Data and methodology

The data that I will use in this study is the World Bank's Global Financial Inclusion Database 2017 (Global Findex). The Global Findex database contains the world's most complete collection of information on how people manage risk, save money, and make payments. Global Findex database of the World Bank contains data at the individual level from a 2011 survey of more than 150,000 individuals across 148 nations. It also contains more than 100 financial inclusion indicators in a format that enables users to compare access to financial services globally, including by gender, age, and household income etc. Gallup, Inc. conducted the study in conjunction with its yearly Gallup World Poll. Since 2005, Gallup has conducted yearly surveys of around 1000 adults in each of the nations. However, for large countries, the sample size may be greater. The entire noninstitutionalized civilian population aged 15 and over is the target population. Demirgüc-Kunt and Klapper (2012) provide more details on this database.

The 2017 Global Findex database, on the other hand, contains the results of representative surveys conducted in more than 140 developing and high-income nations. The database includes current statistics on access to and use of formal and informal financial services. It outlines measures to improve access to financial services for the unbanked as well as methods to encourage the underbanked to use digital financial services more frequently. My examination of financial inclusion in this paper is centered on four important components.

4.1. Variables

4.1.1. Dependent variables

In this work, I used World Bank microdata (Global Findex Dataset, 2017) to examine financial inclusion in Bangladesh. The dataset consists of 1000 samples with different preset weights to represent the entire noninstitutionalized adult population of adults in the nation who are 15 years of age or older. The weights are calculated using population-level economic data on gender, age, and socioeconomic standing. The ownership of formal bank accounts, formal savings, formal credit, and barriers to financial inclusion are all used as indicators of an individual's access to financial services and institutions.

4.1.2. Independent variables

To measure the access of financial inclusion in Bangladesh, in terms of formal account ownership individuals working age, education, income, employment is used as an independent variable. I have chosen to include how Bangladesh's financial inclusion is impacted by working age. Given that the database only contains individuals between the ages of 15 and 90. I decided to separate the age range into four working groups. Based on numerous employment and age variables, the Bangladeshi population is divided into different groups. There can be different requirements and age restrictions in other nations. The data is being accessed for the working age group (15–24), the group after that (25–54), the group after that (55–64), and the group after that (65+).

The three groups of educational attainment levels in the data are displayed. The lowest level of education has been determined to have completed a lot more than just primary school. People who had completed their secondary education and were therefore regarded as having a secondary level of education made up the second category. The final category consisted of those with education levels higher than secondary school.

The income levels of the sample population are divided into four different groups. Initially, the poorest individuals correspond to those who lie in the bottom 20% of income categories. The middle 20% consists of people with middle-class earnings, while the second-poorest 20% is comprised of those who have slightly better incomes than the lowest category. Based on this, the upper middle-class accounts for the first 20% of earnings, while the richest 20% of people control the remaining 20%.

4.2. Measuring financial inclusion

I discuss financial inclusion in Bangladesh. The scenario of financial inclusion is provided in detail through the Global Findex questionnaire. There are several questions in it about using financial services and the reasons why. I employ data from the Global Findex database on five characteristics: income, education, working age, gender, and employment to quantify the utilization of accounts ownership in formal financial institutions in Bangladesh. With the outcome of whether a person has a bank account in a formal financial institution as the dependent variable, I have created bivariate and multivariate logistic regression models to measure financial inclusion. I then use descriptive statistics to show formal account, formal saving, formal credit, and barriers to financial inclusion.

4.3. Major indicators of financial inclusion

I measure financial inclusion from several angles in order to compile data on the extent of financial inclusion in Bangladesh. I focus on the four primary indicators in line with Demirgüc-Kunt and Klapper (2013). The first and most common one is having a formal bank account (a formal account) with a financial institution. The following survey question serves as a definition for this: Have you opened a bank account with a recognized financial institution yet? The second indicator is the survey question used in this situation is based on formal saving or saving done through a formal financial institution. Have you saved or put money aside in a bank account in the last 12 months? Only those who responded that they had saved or put aside money over the previous 12 months are subject to this question. Because of this, fewer people responded in relation to the first indicator. This indicator shows how ready savers are to put their earnings in a formal financial institution compared to other types of saving. The third perspective examines the use of formal credit, such as bank credit. Have you gotten a loan from a bank, credit union, or microfinance organization in the last year? - is the question asked in the survey to determine if a person has a bank loan. Finally, respondents are asked to explain why they personally do not have an account with a bank or other type of formal financial institution in the unbanked part. The primary descriptive statistics for these metrics in Bangladesh are shown in tables 2, 5 and 6. It should be noted that not all indicators had the same number of respondents.

5. Results

This study analyzes financial inclusion status of Bangladesh using World Bank microdata from the 2017 Global Findex Dataset. 1000 individuals are represented as samples with weights that resemble the population of individuals aged 15 and over where institutionalized individuals are excluded as closely as possible.

Table 2: Descriptive statistics

	Percentage
Financial Inclusion	
Yes	50.00%
No	50.00%
Gender	
Female	35.64%
Male	64.59%
Working Age	
(65+)	5.10%
(55-64)	8.40%
(25-54)	63.70%
(15-24)	22.80%
Education	
More than Secondary	3.80%
Secondary	48.70%
Completed Primary or less	47.50%
Income	
Poorest 20%	18.00%
Second Poorest 20%	19.20%
Middle 20%	19.60%
Upper Middle 20%	20.00%
Richest 20%	23.20%
Employment	
Out of Workforce	51.00%
In Workforce	49.00%

Source: Global Financial Inclusion (Global Findex) Database 2017, Bangladesh

The sample was chosen based on the population's socioeconomic situation, age, level of education, and gender. I examine financial inclusion in Bangladesh by analyzing bivariate and multivariate regression models using the presence of a bank account as the dependent variable. In 2017, 50% of people had a bank account with a formal financial institution; the remaining 50% had neither an account nor used formal financial services. According to the surveyed population, 64.5% of males and 35.64% of women had accounts with formal financial institutions.

The third table shows a strong correlation between a number of variables and financial inclusion in Bangladesh. Model 1 represents the financial inclusion of accounts ownership in relation with gender as the independent variable. In comparison to men, who served as the reference group, women had a considerably lower odds ratio of financial inclusion. It shows the negative association between a female in financial inclusion. The odd ratio shows women are 64% less likely to have financial access than men. This association between gender and financial inclusion is statistically significant ($p<0.001$).

After analyzing the effect of gender on financial inclusion, to account for the effect of working age, in Model 2, I divided the age range of the database, which includes individuals between the ages of 15 and 90, into four distinct working groups. These groups were categorized based on different age ranges and working criteria relevant to the population of Bangladesh. The first group included individuals aged 15 to 24. The second group consists of individuals aged 25 to 54. The third group comprises individuals aged 55 to 64, and the final group consists of individuals aged 65 years and above. Model 2 shows the effect of different working ages in the financial inclusion model with the working group (65+) as the reference group. Among the working groups, the working-age people (25–54) one has a dominant impact on financial inclusion. The group is 94% more likely to have a financial account than the early ones with statistically significant p-values ($p<0.001$). People aged 55 to 64 have higher odds (1.64), whereas those 25 to 54 have the highest chances of being financially included.

Table 3: Bivariate odd ratios for financial inclusion on gender, working age, education, income, and employment.

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender					
Female	0.36***				
Male	REF				
Working Age					
(65+)		0.85			
(55-64)		1.64			
(25-54)		1.94***			
(15-24)		REF			
Education					
More than Secondary			12.64***		
Secondary			1.98***		
Completed Primary or less			REF		
Income					
Poorest 20%				0.32***	
Second Poorest 20%				0.38***	
Middle 20%				0.49***	
Upper Middle 20%				0.79	
Richest 20%				REF	
Employment					
Out of Workforce					0.42***
In Workforce					REF
R^2	0.0605	0.0227	0.054	0.044	0.045

Source: Global Financial Inclusion (Global Findex) Database 2017, Bangladesh
*** p<0.001; ** p<0.01; * p<0.05

Model 3 shows the combined effect of gender and working age on the financial inclusion outcome. The result shows for both gender and working ages as the controlling variables, female and working age (25-54) have statistically significant ($p<0.001$) association with financial inclusion in their respective groups. It shows the effect of education with primary or less education as the reference group. Significantly higher odds of financial inclusion are linked to higher levels of education. In comparison to respondents with only a primary education or less, those with education levels above secondary school had a considerably higher odds ratio (12.64) for financial inclusion. The results show that as more education is achieved people are more inclined to use financial services. The results are statistically significant ($p<0.001$). Compared to respondents with only a completed elementary education or less, those with a secondary education also had a considerably higher odds ratio (1.98) for financial inclusion.

Model 4 shows the overall analysis with respect to gender, working age, and education. According to this model 4, highly educated men who are in the working age range (25 to 54) have higher chance of financial inclusion than women of a similar background. It is also found that men have 65% additional probability to have a bank account than women, and the people working in the ages from 25 to 54 years are 133% more likely to use bank account than earlier age groups. It is also seen that higher levels of education may have a positive impact on people to have access to financial institutions. In the case of income for the population, the findings show that lower income individuals had less access to financial inclusion, with the poorest 20% having the least access. The findings are statistically significant ($p<0.001$) for all income groups except the upper middle 20%, which can capture around 4% variability of the data (=0.04358). By treating the richest 20% of income categories as the reference group, we see that the poorest 20% have a considerably lower odds ratio (0.32) for financial inclusion where the odd ratios have become significantly lower in case of other income categories. By considering the richest 20% of income categories as the reference group, one can observe that the probability for financial inclusion for the lowest 20% is 0.32, which is significantly lower than the odds ratios for other income categories.

I combine the findings of these variables and use Model 5 to show how they have an impact on financial inclusion. Males between the ages of 25 and 54 are more likely to engage formal financial services when their income and education are higher.

Table 4: Multivariate odd ratios for financial inclusion on gender, working age, education, income, and employment.

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender					
Female	0.36***	0.34***	0.35***	0.34***	0.42***
Male	REF	REF	REF	REF	REF
Working Age					
(65+)		0.61	0.95	0.89	0.97
(55-64)		1.24	2.06*	1.93*	1.98*
(25-54)		1.86***	2.34***	2.31***	2.25***
(15-24)		REF	REF	REF	REF
Education					
More than Secondary			10.89***	7.11***	6.49**
Secondary			2.46***	2.05***	2.13***
Completed Primary or less			REF	REF	REF
Income					
Poorest 20%				0.41***	0.41***
Second Poorest 20%				0.50**	0.51*
Middle 20%				0.63*	0.62*
Upper Middle 20%				0.88	0.87
Richest 20%				REF	REF
Employment					
Out of Workforce					0.67*
In Workforce					REF
R^2	0.06053	0.08394	0.1356	0.1542	0.1693

Source: Global Financial Inclusion (Global Findex) Database 2017, Bangladesh
*** p<0.001; ** p<0.01; * p<0.05

In addition, this model also shows employment plays a vital role for financial inclusion. The unemployed respondents have a considerably lower odds ratio (0.42) after considering the employed respondents as the reference group. Furthermore, there is a statistically significant (p 0.001) association between employment and financial inclusion where an unemployed person has 59% less possibility to have a bank account. This model can capture about 17% (=0.1693) of the data's variability.

The multivariate odd ratios for financial inclusion are shown in Table 4 while considering the significance of gender, working age, education, income, and employment. Model 1, Model 2, Model 3, Model 4, and Model 5 are the models that were employed in the analysis. The Global Findex Database 2017 in Bangladesh served as the data source for this investigation.

After combining the findings from each model, we find that women are less likely than men to be financially included. This association remains true even after taking other factors into consideration. If we consider the age (15-24) as reference group, other groups possess a high probability of financial inclusion except for the group aged over 65. In comparison to those who just completed their primary schooling or less, higher education, particularly after secondary school, might drive people in a better way to be included in various financial services. Lower income groups (from lower 20% to middle 20% except the upper middle 20%) have lower odds of being included in financial services compared to the richest 20% (reference group). Financial inclusion is lower for those who leave the workforce than it is for those who remain in it (the reference group).

Overall, in Bangladesh, financial inclusion is mostly determined by gender, education, income, and employment. People who are female, have less education, and make less money are less likely to use formal financial services. In contrast, males with higher levels of education who are in the age range of 25 to 54 and 55 to 64 are more likely to be included in financial inclusion.

Table 5: Descriptive statistics of financial inclusion indicators: formal account, formal saving, and formal credit.

Indicator	Samples	Average (%)
Formal Account	1000	40.97
Formal Saving	284	36.06
Formal Credit	372	24.64

Table 5 provides descriptive statistics for the three main financial inclusion measures for Bangladesh in 2017. These important statistics provide information about the population's formal account holdings at financial institutions during the previous 12 months. Formal credit indicates the respondent's propensity to rely on formal credit services over the past 12 months, whereas formal saving shows the number of people who use formal methods for their savings. In a survey of 1000 people, account ownership and access to government-supervised financial institutions are used on average by 41% of respondents. 284 respondents reported formal saving habits over the previous 12 months. Approximately 36% of them use financial institutions to save, which shows an increasing desire to do so. 372 survey respondents who had formal credit reported borrowing in various ways throughout the past 12 months. About 25% of those surveyed said they had borrowed money through official methods, indicating a minimal dependency on credit.

Table 6: Barriers to financial inclusion

Barriers	Samples	Average (%)
Too far away	618	14.15
Too expensive	611	16.85
Lack of documentation	623	13.97
Lack of trust	611	11.39
Lack of Money	632	62.12
Religious reasons	622	63.52
Family member has an account	627	18.59
No need for financial services	615	32.31

Table 6 shows main barriers to financial inclusion in Bangladesh leading people to not have an account in the formal financial institutes. These barriers include things like distance, cost, a lack of paperwork, a lack of confidence, a lack of funds, religious considerations, the fact that family members already have accounts, and a lack of perceived need for financial services. 618 surveyed respondents are directly related to distance based financial services. Around 15% of them do not use financial account due to distance. Account cost has a direct effect on 611 surveyed populations where an average of 17% of them think cost is the main issue for financial exclusion. Documentation can be used as a financial factor for the 623 surveyed population. Approximately an average of 14% of people cite documentation as a barrier. 611 respondents have a trust related issue in case of having or not having a formal account. 11% of them did not use financial services on formal channels due to lack of trust. 632 individuals mention money as the critical factor for financial inclusion in the formal channels. Almost 63% faced issues with money to use financial services. Factors like religious reasons have a direct impact of using financial services for 622. A significant portion of them (64% on average) expressed religious concerns about not having a formal account. These religious considerations are frequently linked to religious ideas and values that affect people's financial decision-making. In Bangladesh, certain religious principles prohibit the charging or receipt of interest. Many people who follow these religious ideas may refrain from engaging with financial institutions that offer interest-based services and products because they perceive these institutions conflict with their beliefs. Furthermore, 627 participants think family member’s inclusion in the formal channels have a strong correlation for financial access. 19% on average think family member’s inclusion as the barrier for formal accounts. 615 surveyed sample thinks that perceptions of financial services hold a crucial barrier for financial access. Around 32% of respondents do not see the need for formal financial services.

6. Findings

This study focuses on Bangladesh's level of financial inclusion, a South Asian nation with a lower middle class. Its objective is to assess the impact of variables like gender, working age, employment, income, and education on the degree of account ownership in a formal financial institution. In addition to analyzing distinctive financial inclusion measures, the study will additionally identify respondents' financial inclusion barriers. While Bangladesh is a lower middle-income country with limited access to financial inclusion and services for a variety of demographic groups, this article is the first to measure access to financial inclusion using four primary indicators (account ownership, formal savings, formal credit, and barriers to financial exclusion).

According to research findings and data analysis, Bangladesh has sizable demographic differences that have an impact on gaps in financial inclusion. Gender, income, education, and working conditions, which include age and employment status, are only a few examples of these demographic differences. In terms of financial inclusion, men exceed women, with 35% of women represented and about 65% of men having access to the financial system. The gender gap in access to financial services in Bangladesh is highlighted by the fact that women are less likely than men to be financially included. Studies by Akhter et al. (2020) and A.H.M. Belayeth (2019) also produced similar findings, although they were unable to provide a comprehensive understanding of consumers' experiences and barriers to utilizing digital financial services. For instance, Akhter et al. (2020) discovered that female households are less likely to use financial services than male ones. Females are more likely to use financial institutions if they work outside of agriculture, have a higher education, and live in cities. Siddik (2017) made a similar observation, noting that the fact that there are still differences between men and women in Bangladesh in terms of education, property control, and opportunities for employment and income shows that development efforts are mostly focused on men.

According to this study, the working age group (25 to 54) has the highest level of financial inclusion, as opposed to the elderly (65+). A higher chance of financial inclusion is seen in the working age range (25–54), which may point to the advantages of concentrated efforts intended for this age group. In research by Musa et al. (2015), which also indicates a similar finding, youth, large income, and higher education were mentioned as important factors influencing financial inclusion in Nigeria. The study also found that being a woman, earning a low-income, and being old all reduce the likelihood of being financially involved.

According to this study, those with at least a secondary degree are more likely to use formal financial services than those with only a primary degree. Similar results were reached by Khalily (2016), who found that people who are financially literate favorably promote inclusive financing. Supply and demand both have a role in determining financial inclusion characteristics. Demand side factors are the socioeconomic characteristics including income, education, age, and gender. On the other hand, people's decisions to use financial services are influenced by their personal beliefs and attitudes, often known as supply side issues (Sanderson et al. 2018). In addition to socioeconomic factors like education, the World Bank (2015) emphasizes the significance of behavioral, personality traits and attitude for financial inclusion.

Besides, this study discovers that income has a substantial impact, with people in the richest 20% having a higher level of financial inclusion than those in the poorest 20%. According to numerous research, income, wealth, and education all play significant roles in explaining consumption (Claessens, 2006). In the study of financial inclusion in 37 African countries, Zins and Weill (2016) found that income and education had a greater impact on financial inclusion than did gender, age, or educational achievement. As noted by Zhang (2019), income, employment status, and consumption all benefit from access to financial inclusion. Increased income enables households to use financial services and become more financially integrated. Similar findings were made by Caskey et al. (2006), who discovered that unbanked people had lower household incomes, fewer job possibilities, and lower levels of schooling. In the opinion of Johnson et al. (2011), employment or the main source of income is the factor that is most closely related to inclusion and exclusion.

Regression analysis, including bivariate and multivariate ones, give important insights into the underlying factors influencing financial inclusion. This bivariate and multivariate regression analysis provide substantial information on the variables affecting financial inclusion. The bivariate study reveals that an individual's financial inclusion is significantly correlated with gender, working age and status, education, and income. The findings are relevant to higher education levels, high wages, and maintaining employment, all of which affect a person's likelihood of becoming financially involved. Education improves access to financial goods because it enables people to understand them and make informed decisions about them. Pea et al. (2014) discovered a positive association between financial inclusion and their findings suggest education as a method of evaluating one's knowledge, skill set, and capacity to make judgments in formal financial markets. The results are consistent with other studies (Ellis et al., 2010; Cole et al., 2019; Kempson et al., 2013).

The multivariate regression analysis's findings reinforce and support those of the bivariate analysis. I discover that across all models, women have lower odds ratios, the primary working age group has a greater inclusion ratio, and that having a higher salary, a better education, and a job increase the likelihood of being financially involved. To address the disparities in income, gender, education, and gender, actions must be taken to advance education, reduce income inequality, and provide new work opportunities. Policymakers and stakeholders may pave the way for the development of a more equitable, inclusive, and rational financial system by appropriately addressing these concerns, ensuring higher financial inclusion that would strengthen a country's economy.

A significant portion of the population still lacks access to formal financial services, as shown by the descriptive statistics for financial inclusion based on formal saving, formal credit, and formal account indicators, which show that 40.97% of the respondents reported having a formal account. However, the lower numbers of formal saving and formal loans illustrate sectors that still require improvement in terms of financial inclusion. The use of formal accounts and formal credits is significantly influenced by higher income, better education, being a man, and age, as determined by Fungov and Weill (2015), whereas borrowing is significantly influenced by income and education in China. They show how gender dynamics within the home might make it challenging for women to deposit their savings in banks since their husbands can watch them utilize, and mobility norms can make it harder for them to get an account. Women in underdeveloped countries have low account ownership rates as well as little formal saving experience based on Fungov and Weill (2015). In order to encourage people to engage in formal savings and credit, policymakers and financial institutions should concentrate on initiatives to improve access to savings and credit products, such as enhancing financial literacy, expanding product offerings, and removing potential barriers that may prevent people from utilizing these services. In addition, initiatives to raise public knowledge of the advantages of formal saving and credit as well as to foster trust in financial institutions may encourage more people to use these services, which would ultimately lead to greater financial inclusion.

Overall, the study's findings highlight how crucial it is to remove major barriers in order to increase financial inclusion in Bangladesh. Obstacles such as a constrained economy, social and moral standards, a lack of apparent necessity, price, documentation requirements, and a lack of trust in financial institutions frequently prevent the use of formal financial services. Nevertheless, as stated by Adetunji and David-west (2019), the major objective should be to lower access costs, or transaction costs, notably in terms of fees and charges as well as documentation requirements. In the study by Tuesta et al. (2015), supply-side variables, personal factors, and perception-influencing factors were the three components of financial inclusion employed in Argentina. From a personal perspective, financial inclusion was mostly determined by a person's level of education, income, and age. Unavoidable exclusion is hampered by old age and low income (Fungov and Weill, 2015). Likewise, Demirgüc-Kunt et al. (2013) discovered that women are more likely to experience financial exclusion.

According to Naceur et al. (2015), a variety of factors have an impact on financial inclusion. Costs associated with providing financial services to the general population are influenced by structural factors. There are many important obstacles that limit access to and use of financial products and services, including the high interest rate, the sizeable rural population, and the low literacy rate. Excluded groups may be encouraged to utilize formal financial services by expanding branch facilities and establishing loan interest rates that are close to global standards. The policymakers and stakeholders must stand and come up with an effective strategy to overcome some of these barriers by implementing financial literacy, service accessibility, traditional and cultural understanding, and trust-building measures. For varied people to have equitable access to the financial services earnings, this will build a stronger economic presence and a safer financial framework.

7. Limitations and scope for future research

Similar to many other empirical studies, this study holds limitations that allow for more research. The dataset employed in this study corresponds to a sample size of 1000 participants. There are 169 million people living in Bangladesh now, which raises questions about whether this figure can be used to generalize about the country's whole population. In order to secure more generalizing results, it might be recommended to expand the sample size. The dataset may be skewed because of the respondents' response who have lower education. The data has not included statistics of microfinance organizations and unofficial financial networks, which are essential in delivering financial services to underbanked and unbanked communities. It is vital to understand, nevertheless the self-reported data from respondents may occasionally result in inaccurate and biased information, leading to erroneous reporting of their level of financial inclusion. Due to the temporal lag in data collection, it's also possible that the data might not represent recent activities and changes in the context of financial inclusion in Bangladesh. Additionally, it's likely that the data excludes regional or subnational variations within the same country in favor of focusing primarily on global and national averages. It is important to recognize that people's perspectives, attitudes, and engagement in financial inclusion may change as they gain knowledge and experience through time. It would be intriguing to do a longitudinal study to assess the level of access to financial inclusion over the years because the results of this study are based on national-level data. In the predictive paradigm, longitudinal research would allow for comparisons and provide more information on the relationships and correlations between the variables.

8. Implications

Research has also shown a strong connection between financial inclusion and employment and economic growth (Amit, 2017). This can be easily understood by considering that financial service providers might have access to greater savings if more people have access to investment products like business loans. In turn, this encourages business, which results in the development of jobs. When employment increases, there may be a surge in demand for financial products and services. The development of jobs, investments, financial inclusion, and future growth are all examples of positive feedback mechanisms.

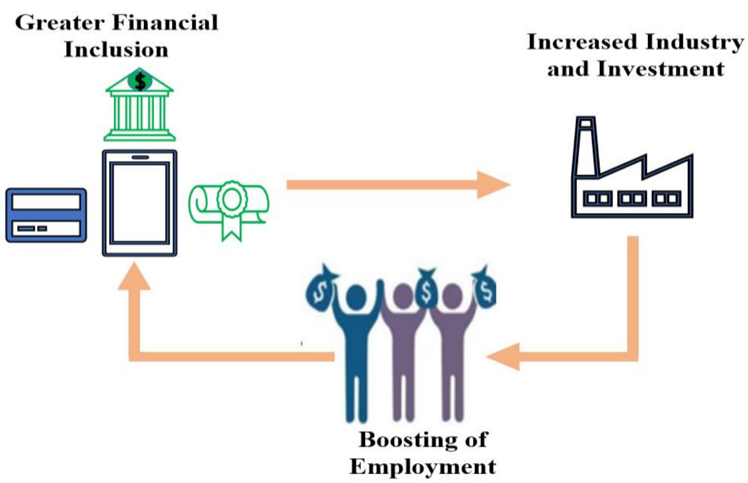

Figure 6: Beneficial cycles of financial inclusion

8.1. Greater financial inclusion

People from many fields can benefit from better financial inclusion if there is an increase in the use of formal financial services in Bangladesh. The scope is not only limited to opening bank accounts, obtaining loans but also using savings products followed by engaging in financial transactions. The proper application of these measures can encourage economic growth and development, which may enable a larger populace to engage in the formal financial system.

8.2. Increased investment and industry

Bangladesh's improved financial inclusion may create larger base for savings and more consumers for financial service providers. Increased revenue could result from this, which could then be used for financing a variety of investment-related activities. Financial institutions can use these accumulated funds to help and support the establishment of new companies, promote corporate growth, and foster innovation across numerous industries. Consequently, as a result of these advancements, Bangladesh's industrial landscape could expand and prosper.

8.3. Boosting of employment

Financial inclusion can raise investments and expand industries, which in turn may enhance employment. As businesses expand might require more workers, which lowers the unemployment rate and increases the number of jobs created. Opportunities for employment can improve people's quality of life, contribute to the combat against poverty, and promote socioeconomic growth.

9. Conclusion

In this study, I analyze the extent and elements influencing financial inclusion in Bangladesh using the Global Findex database. Because it increases opportunities for learning and creative thinking, which stimulates economic progress. I discovered many incredible things. First, when compared to other wealthy and developing nations in the globe, Bangladesh is not significantly more financially inclusive when looking at the percentage of individuals having formal accounts and formal saving. Most women in Bangladesh do not have access to banking or insurance. Due to a wide variety of financial illiteracy and unemployment, they are experiencing high levels of financial distress. Second, formal credit is less developed in Bangladesh.

Alternative borrowing methods are frequently used, whereas formal borrowing is less common than borrowing from family or friends. Formal credit is not used by people in Bangladesh very regularly. Third, I learn that having a bank account is positively connected with having an income, having a college degree, being a man, and being older, all of which contribute to greater financial inclusion. Moreover, financial literacy is also crucial for removing obstacles to financial inclusion.

My key conclusion is that Bangladesh does not have a high level of financial inclusion when compared to other comparable nations. However, formal credit use is still very low, possibly as a result of Bangladeshis' limited access to bank credit. Although there tend to be available alternatives to borrowing, primarily through family and friends, the comparatively low dependency on formal credit may eventually limit economic growth because fewer people would have access to it. It can also undermine financial stability because all loans made outside of the legal system are exempt from banking regulations. As a result, regulators should offer incentives to promote the usage of formal credit in Bangladesh by concentrating on growth and maintaining financial stability.

The results of the study have some effects on society. Ownership of a formal account, which indicates financial inclusion in Bangladesh, poses an important challenge. The significance of a formal account, however, might be elevated by Bangladeshi authorities if constraints regarding employment, age, gender, income, and education are removed as each of these factors has long-term consequences for society. However, the short-term limited use of formal credit, savings, and account ownership is clearly a severe problem. As a result, Bangladeshi officials should take steps to increase the use of these elements.

References

Adetunji, O. M., & David-West, O. (2019). The relative impact of income and financial literacy on financial inclusion in Nigeria. *Journal of international development*, 31(4), 312-335.

Akhter, N., & Khalily, M. B. (2020). An analysis of mobile financial services and financial inclusion in Bangladesh. *Indian journal of human development*, *14*(2), 213-233.

Akter, S. (2016). Overview of financial inclusion in Bangladesh. *The journal of the study of modern society and culture*, 63(12), 225-255.

Anyangwe, T., Vanroose, A., & Fanta, A. (2022). Determinants of financial inclusion: does culture matter? *Cogent economics & finance*, 10(1), 2073656.

Asia, E. (2022). *World bank group*.

Aterido, R., Beck, T., & Iacovone, L. (2013). Access to finance in Sub-Saharan Africa: is there a gender gap? *World development,* 47, 102-120.

Aziz, A., & Naima, U. (2021). Rethinking digital financial inclusion: evidence from Bangladesh. *Technology in society*, 64, 101509.

Belayeth Hussain, A. H. M., Endut, N., Das, S., Chowdhury, M. T. A., Haque, N., Sultana, S., & Ahmed, K. J. (2019). Does financial inclusion increase financial resilience? evidence from Bangladesh. *Development in practice*, 29(6), 798-807.

Berger, M. (1995). Key issues in women's access to and use of credit in the micro-and small-scale sectors. *IT Publications*, London.

Buckland, J. (2012). Hard choices: Financial exclusion, fringe banks, and poverty in urban Canada. *University of Toronto press.*

Caskey, J., Duran, C.R. and Solo, T.M. (2006) The urban unbanked in Mexico and the United States. Accessed at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=922961.

Claessens, S. (2006) Access to financial services: a review of the issues and public policy objectives. *World bank research observer*, 21(2), pp. 207–240.

Chen, Z., & Jin, M. (2017). Financial inclusion in China: Use of credit. *Journal of family and economic issues*, 38, 528-540.

Cicchiello, A. F., Kazemikhasragh, A., Monferrá, S., & Girón, A. (2021). Financial inclusion and development in the least developed countries in Asia and Africa. *Journal of innovation and entrepreneurship,* 10(1), 1-13.

Dasgupta, R. (2009). Two approaches to financial inclusion. *Economic and political weekly,* 41-44.

Demirgüç-Kunt, A., Klapper, L. F., & Singer, D. (2013). Financial inclusion and legal discrimination against women: evidence from developing countries. *World bank policy research working paper*, (6416).

Demirgüç-Kunt, A., & Klapper, L. (2013). Measuring financial inclusion: explaining variation in use of financial services across and within countries. *Brookings papers on economic activity*, 2013(1), 279-340.

Demirgüç-Kunt, A., & Klapper, L. F. (2012). Measuring financial inclusion: The global findex database. *World bank policy research working paper*, (6025).

Epstein, G., & Grabel, I. (2006). Financial policies for pro-poor growth, a study prepared for the United Nations Development Program (UNDP). *International poverty centre, global training program on economic policies for growth, employment and poverty reduction.*

Fanta, A. B., & Mutsonziwa, K. (2016). Gender and financial inclusion. FinMark Trust.-2016.-*Policy research paper*, 1(1).

Fry, M. J. (1982). Models of financially repressed developing economies. *World development*, 10(9), *731-750.*

Fungáčová, Z., & Weill, L. (2015). Understanding financial inclusion in China. *China economic review*, 34, 196-206.

Gap, G. G. (2017). World economic forum. *Cologny/Geneva*.

Goetz, A. M., & Gupta, R. S. (1996). Who takes the credit? gender, power, and control over loan use in rural credit programs in Bangladesh. *World development*, 24, 45-63. https://doi.org/10.1016/0305-750X(95)00124-U

Golla, A. M., Malhotra, A., Nanda, P., & Mehra, R. (2011). Definition, framework and indicators. *Washington, DC: International center for research on women (ICRW).*

Growth, A. (2015). Seventh five-year plan FY2016–FY2020.

Hashemi, S. M., Schuler, S. R., & Riley, A. P. (1996). Rural credit programs and women's empowerment in Bangladesh. *World development*, 24, 635-653. https://doi.org/10.1016/0305-750X(95)00159-A

Holloway, K., Niazi, Z., & Rouse, R. (2017). Women’s economic empowerment through financial inclusion: A review of existing evidence and remaining knowledge gaps. *Innovations for poverty action*.

Holvoet, N. (2005). The impact of microfinance on decision- making agency: evidence from South India. *Development and change*, 36, 75-102. https://doi.org/10.1111/j.0012-155X.2005.00403.x

Honohan, P. (2008). Cross-country variation in household access to financial services. *Journal of banking & finance*, 32(11), 2493-2500.

Hossain, M., Bose, M. L., & Ahmad, A. (2004). Nature and impact of women's participation in economic activities in rural Bangladesh: insights from household surveys (No. 2004: 20). *Working paper.*

Hossain, S. M., Islam, S. N., Hossain, M. N., Hossain, M. M., Yesmin, R., & Mohiuddin, G. (2015). Financial inclusion initiatives of Bangladesh Bank: evaluation and challenges. *Banking Research Series*, 200.

Hunt, J., & Kasynathan, N. (2002). Reflections on microfinance and women's empowerment. *Development bulletin*, 57, 71–75.

Mosley, P. (1996). *Finance against poverty* (Vol. 1). *Routledge.*

Naceur, M. S. B., Barajas, M. A., & Massara, M. A. (2015). Can Islamic banking increase financial inclusion? *International Monetary Fund.*

Islam, A., Nguyen, C., & Smyth, R. (2015). Does microfinance change informal lending in village economies? evidence from Bangladesh. *Journal of banking & finance*, 50, 141-156. https://doi.org/10.1016/j.jbankfin.2014.10.001

Islam, M. M., Ali, R. N., Salehin, M. M., & Islam, A. H. M. S. (2008). Rural women and poverty: a study on the role of RDRS for poverty alleviation in Bangladesh. *Journal of the Bangladesh agricultural university*, 6, 415-421.

Johnston Jr, D., & Morduch, J. (2008). The unbanked: evidence from Indonesia. *The world bank economic review*, 22(3), 517-537.

Johnson, S., & Nino-Zarazua, M. (2011). Financial access and exclusion in Kenya and Uganda. *The journal of development studies*, 47(3), 475-496.

Kabeer, N. (2012). Women's economic empowerment and inclusive growth: Labor markets and enterprise development (2012/1).

Karmakar, K. G. (1999). Rural credit and self-help groups: micro-finance needs and concepts in India. *Sage publications India Pvt Ltd.*

Khalily, M. A. (2016). Financial inclusion, financial regulation, and education in Bangladesh.

Krishna, A. (2003). Social capital, community driven development and empowerment: a short note on concepts and operations. *World bank working paper No*, 33077.

Krugman, P., & Venables, A. J. (1995). Globalization and the inequality of nations. *The quarterly journal of economics*, 110, 857- 880. https://doi.org/10.2307/2946642

Kumar, N. (2013). Financial inclusion and its determinants: evidence from India. *Journal of Financial economic policy*, 5(1), 4-19.

Larracilla-Salazar, N., Peña-Osorio, I. Y., & Molchanova, V. S. (2019). Education and financial inclusion: an empirical study for students of higher education. *European journal of contemporary education*, 8(4), 810-818.

Léon, F., & Zins, A. (2020). Regional foreign banks and financial inclusion: evidence from Africa. *Economic modelling*, 84, 102-116.

Leyshon, A., & Thrift, N. (1995). Geographies of financial exclusion: financial abandonment in Britain and the United States. *Transactions of the institute of British geographers*, 312-341.

Mahjabeen, R. (2008). Microfinancing in Bangladesh: impact on households, consumption, and welfare. *Journal of policy modeling*, 30, 1083-1092. https://doi.org/10.1016/j.jpolmod.2007.12.007

Park, C. Y., & Mercado, R. (2015). Financial inclusion, poverty, and income inequality in developing Asia. *Asian development bank economics working paper series*, (426).

Paramanandam, D. A., & Packirisamy, P. (2015). An empirical study on the impact of micro enterprises on women empowerment. *Journal of enterprising communities: people and places in the global economy*, 9(4), 298-314.

Pitt, M. M., Khandker, S. R., & Cartwright, J. (2006). Empowering women with micro finance: evidence from Bangladesh. *Economic development and cultural change*, 54(4), 791- 831.

Rashdan, A., & Eissa, N. (2020). The determinants of financial inclusion in Egypt. *International journal of financial research*, 11(1).

Rojas-Suarez, L. (2010). Access to financial services in emerging powers: facts, obstacles and recommendations. *Obstacles and recommendations* (March 2010).

Sanderson, A., Mutandwa, L., & Le Roux, P. (2018). A review of determinants of financial inclusion. *International journal of economics and financial issues*, 8(3), 1.

Sarma, M. (2008). Index of financial inclusion (No. 215). *Working paper*.

Schwab, K. (2018, October). The global competitiveness report 2018. *World economic forum*.

Shankar, S. (2013). Financial Inclusion in India: do microfinance institutions address access barriers. *ACRN journal of entrepreneurship perspectives*, 2(1), 60-74.

Siddik, M. N. A., Sun, G., & Kabiraj, S. (2015). Financial inclusion and its determinants: a study of Bangladesh. *Indian journal of finance*, 9(6), 7-29.

Siddik, M. N. A. (2017). Does financial inclusion promote women empowerment? evidence from Bangladesh. *Applied economics and finance*, 4(4), 169-177.

Tinta, A. A., Ouédraogo, I. M., & Al-Hassan, R. M. (2022). The micro determinants of financial inclusion and financial resilience in Africa. *African development review*, 34(2), 293-306.

Tuesta, D., Sorensen, G., Haring, A., & Camara, N. (2015). Financial inclusion and its determinants: the case of Argentina. *Madrid: BBVA research*.

Uddin, A., Chowdhury, M. A. F., & Islam, M. N. (2017). Determinants of financial inclusion in Bangladesh: dynamic GMM & quantile regression approach. *The journal of developing areas*, 51(2), 221-237.

World Bank. (2008). Banking the poor: Measuring banking access in 54 economies. The World Bank.

World Bank Group. (2014). The World Bank Group A to Z 2015. *World bank publications*.

World Bank. (2022). *The World Bank Annual Report 2022*. The World Bank.

Zhang, Q., & Posso, A. (2019). Thinking inside the box: a closer look at financial inclusion and household income. *The journal of development studies*, 55(7), 1616-1631.

Zins, A., & Weill, L. (2016). The determinants of financial inclusion in Africa. *Review of development finance*, 6(1), 46-57.