The Mediating Influence of Financial Literacy between the Financial Inclusion and Sustainable Development

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Abstract

The goal of this study was to examine the mediating effect of financial literacy on the financial inclusion and sustainable development in Bangladesh. On the basis of questionnaire survey, a PLS SEM model was used with 359 collected data samples from the residents of Dhaka in Bangladesh. The results found financial inclusion positively impacts the sustainable development by both direct and indirect effects. The findings of this study provides a useful contribution and practical implication for the government and financial institutions.

Keywords: Financial inclusion, financial literacy, sustainable development.

Introduction

To complement the leftover MDGs the UN developed (SDGs) sustainable development goals. Therefore, numerous under developed nations, predominantly Bangladesh, build up strategies for reducing scarcity amongst the nation to attain the sustainable development and economic growth. The scholars identified various areas out of which financial inclusion is the one, which is dwarfing the financial system of different underdeveloped economies, including Bangladesh. Thus, FI, FL and SD is more focused area for scholars. Financial literacy is crucial to maintain and achieve the well being between the general public, especially in the young people (Alshebami & Al Marri, 2022). According to Enowbi Batuo and Asongu (2015) and Neaime and Gaysset (2017) different underdeveloped economies experience critical macroeconomic issues, starting from non financial stability increases income in-equality towards extreme unemployment and poverty. The scholars Maune et al., (2020) claimed that financial inclusion helps in improving access towards financial services for all the sections of society. Prior literature suggested that financial inclusion was topic of economic research in current period (Avom & Bobbo, 2018). Hence, financial inclusion encourages underprivileged people to take benefit from financial services. Financial inclusion is seemed as a strategy for attaining different macro-economic goals.

It also facilitates in creating investment opportunity, capital mobility, improves drives economic progress, financial stability and promotes saving to attain sustainable development (Levine, 2005). FI depicts considerably positive influence on sustainable development offering low cost banking services and basic financial services for those customers who are struggling, not having access on regular banking services and for low income individuals as well (Gautier et al., 2020). Though, it might be due to financial literacy vulnerable lack limiting financial services to reach their full potential hindering its capability to influence on sustainable development (Nyarko, 2018).

It is the capability of a person to be well-informed about the products of financial market in order to take better fitted decisions. The experts give emphasis to the importance of financial inclusion, dominating its function in facilitating easy access to affordable and benefitable financial services and products. The policymakers and practitioners has recently given much attention to financial literacy due to established impact of financial literacy on enhancing the well-being of poor people of the society. Though, still the world is far away from succeeding the FI by 2030 its all goals, with 1.7 billion adults un-banked as of 2017 (Bank, 2017). The reason of being low levels of financial inclusion and unbanked adults in different areas of the world is because of unwillingness of financial institutions to offer financial services to poor as it is non profitable. The non-availability of financial literacy is also blameable (Khan et al., 2021). The previous studies conducted in the scholarly literature give attention among the association of financial inclusion and sustainable development. The prior findings of the studies in the literature shows different results; some are positively and significantly supportive while others aren't. The main impacting problem is that financial inclusion is correlated with sustainability and economic growth (Sharma, 2016).

Researchers claimed that the problem of valuable financial inclusion is related to underdeveloping economies, whereas, developed economies have efficient access to financial services. In accordance with Aguera (2015) almost 77% of individuals do not have bank account and living on less than $2 per day, thus not having access to financial services. It is therefore important for underdeveloped economies, specially in Bangladesh, to adopt policies which support access to financial services to achieve sustainability and enhance growth of the economy. Numerous benefits has been revealed by researchers of financial inclusion for both businesses and individuals such as; financial inclusion is pivotal in reducing economic disparities and poverty (Rahman, 2023; Castells-Quintana et al., 2019).

In addition, it is promoting entrepreneurship and encouraging investment in the field of industry and economic development. The household welfare is boosted up by the availability and utilization of financial services by increasing investment, higher consumption, minimizes gender inequality, productivity and entrepreneurship among the women (Mahato & Jha, 2023; Dupas & Robinson, 2013). So, from the literature establishing recent trends among the financial inclusion and sustainable development, the current research work comes up with an intervening variable financial literacy as a mediating variable. Though, sustainable development appeared as a macrolevel but it can be detain at microlevel, likewise, to other

variables of financial literacy and financial inclusion. As previous studies have used combinely across various domains (Adah & Abu, 2019; Sarma & Pais, 2010). For the measurement of sustainable development (HDI) human development index has been used, as it is the precise method to measure sustainable development considering life expectancy and literacy rates which impact productivity and can increases economic growth (CastellsQuintana et al., 2019).
A scholar Selim (2015) suggests that the (HDI) human development index generates more healthcare, education, environmental conservation opportunities and employment. With the help of individual perceptions, all these problems that define sustainable development can be measured. This current study has added an additional variable such as financial literacy acting as a mediator with a view to filling this gap in literature because of the competition pressures on access to finance around the world, which some previous studies have identified as limiting (Khan et al., 2021; Mahato & Jha, 2023). In the context of the relationship between financial inclusion and sustainable development, this intervening variable has not been jointly tested before. Thus, this research paper aims to check the mediating influence of FL on the association between the FL and SD. This study would make significant theoretical and practical contributions in that intervening variable. The paper is arranged into five sections such as introduction, literature review and hypothesis development, research methodology, results and conclusion.

Literature Financial inclusion

The significant contributions have been made by the researchers to understand the reason and implication of people which are not included in financial services, especially within underdeveloping economies. According to Lyonsand & Kass-Hanna (2019) populations with vulnerable economical situations are likely less included in the financial system. Many definitions of financial inclusion has been provided by the literature of economics and finance. Like, Sarma (2012) put forward definition of financial inclusion that deals with critical issues of huge population's like access, utilization and accessibility of financial services. Financial inclusion that pertains businesses and individuals efficiently utilizing and accessing affordable, available, high value, long term and convenient financial services from the suppliers, may decrease the poverty and attain the sustainability and economic development (UNCDF, 2015). Hence, shortage of financial services availability may be a major hurdle on the opportunities of income and for individuals economic wellbeing, specially for the poor youth, women, migrants, rural populations and for people involved informally in firms such as micro-enterprise and SMEs. The research also point out experts have recognized financial inclusion a pivotal element which help firms to continue their businesses (Mago & Chitokwindo, 2014). The FI is considered by its availability and usage of financial services utilizing supply side data aggregation and hurdles (Amidžić et al., 2014).

Financial literacy

Since 2002, importance of financial literacy is increasing day by day, due to the financial markets that are becoming more complicated and creating difficulty for average people to take well formal decisions. It is also consider as a critical instrument to promote FI and sustainable development which creates stable financial system. It provides the entrepreneurs to recognize the important sources of finance for funding their firms (Alshebami & Al Marri, 2022). Financial literacy grabbed a substantial concentration from policy makers, academics and other stake holders because of its importance assissting in the decisions of investment, boosting financial wellness and enhancing personal financial management. The study of (Levine, 2005) claims that the financial development is a crucial tool for sustainability and ecoomic growth. Researchers discussed shortage of financial literacy is a main obstacle to service the demand. There will be no demand of products if people are not comfortable or familiar with them (Ramachandran, 2011). The word FL is the capability to understand and known with products of financial market, specially risks and reward, to take formal decisions such as effective financial decisions and money management. Lack of financial literacy regarding financial services and products in developing countries causes financial exclusion (Atkinson & Messy, 2012). Additionally, motivation for using financial products and services, saving and banking influences financial inclusion in developing economies (Holzmann, 2010). According to Lusardi and Mitchell (2011) in current years, FL captured a significant growth and attention in numerous countries. This growth is because of hurdles which arises in dynamic financial environment, where financial consumers are required to make more informed financial decisions and evaluation. Numerous research work on FI and its connection with sustainability and economic development supports the significance of financial literacy acting as a key role in the financial system of the country (Sun et al., 2020; Fernandes et al., 2014).

It is very beneficial in helping individuals to choose suitable financial products (GAUDECKER, 2015). Therefore, experts claimed that financial literacy is inseparably associated to sustainability of economies and having far reaching impacts for personal financial decisions (Kezar & Yang, 2010). Financial literacy increases economic growth and development by reducing unemployment and poverty (Hogarth, 2007). As stated by Ramachandran (2011) there is a solid connection among financial inclusion and financial literacy with respect to demand and supply. Financial literacy enhances demand by providing information to the people regarding what they should demand and financial inclusion deals with the supply side, by educating people about the needs of individuals in the financial market.

Sustainable development

Macro-economic stages of an economy which country build for existing generation to attain development and growth are components of sustainability. Hence, countries boosts up environmental, economic and social variables to gain sustainability which may not impact the needs of the upcoming generation. The SD is a holistic growth of people concerning with nation building and personal development, roads, bridges and other facilities. Though, it should be a regular process which should not damage the system (Mbata, 2009). It is also supported by experts conventry and Garrod (2004) claimed that growth is sustainable when it may be continued and sustained infinitely.

Sustainable development shows an optimistic influence on the environment or the earth's ecosystem and increases the living standard of the people (Benaim et al., 2008). It comprises three dimensions such as environmental, economic and social. The scholars described purpose of SD is to achieve growth of the economy, social development and environmental balance (Zhai & Chang, 2018). From previous discussion rural population through inclusive finance plays a significant contribution towards the overall sustainable developmemt and economic development of the countries (Hasan et al., 2020).

As mentioned earlier, several research work supports three stages of SD like social, environmental and economic. Hence, agency of united nation specify social aspect of SD to cultural diversity, issues related to human rights, equality of gender, human security and peace issues and intercultural understanding. The dimension such as environmental is regarding to natural resource protection and sustainable urbanization including soil, water, air, energy and agriculture (UNESCO, 2011). While others minimizes environmental pollution and promote renewable energy sources like geothermal and wind energy in the replacement of gas, coal and petrol. Expanding the green area and preservation of forests decreases environmental pollution and resource consumption by waste recycling and stopping all tasks which increases global warming (KOÇAK & BALCI, 2010). The economic sustainability surrounds problems like income and expense balance, resource conservation, sustainable production and cost, removal of inequality distribution of income, prroviding environment for investments, investment in research and development (ATMACA et al., 2019).

Theoretical Underpinning and Research Model

The theory of good public of FI is underpinned in the current research work that is one of the beneficiaries' theory of financial inclusion. There is ongoing debate related to the beneficiaries from the results of FI. Scholars considers the beneficiaries of FI are the financial system and the economy (Swamy, 2014). In the light of this theory, every individual is benefited from financial inclusion, nobody is excluded (Ozili, 2020). On the basis of previous discussion, this theory can describe theoretical model of this study. The aim of this research work is to examine the association among the FI and SD in Bangladesh. FI concentrates on providing accessible and formal financial services to individuals and firms, while SD concentrates to meet the needs of the current without putting at risk the capability of upcoming generation to do the same. The social, economical and environmental elements of sustainable development are its main three pillars (Alaimo et al., 2020). The FI fulfills sustainable development with respect to its social and economic dimensions. Economic dimension regarding to financial inclusion as the financial institutions may reach out to unbanked sections by affordable financial services and ownership account schemes to enhance economic situations. The people welfare could be improved and enhances the profit of financial enterprises that in return leads towards creating the job and increases growth of the economy, ultimately leading sustainable development. Alternatively, social dimension relates to financial institutions may handle up with financially included people with care, respect and fair treatment by fair pricing of basic financial services and products. Hence, when financial institutions implements financial inclusion policies which progress within existing social and economic systems that are vital for sustainability, there is a relationship among FI and SD. Hence, this theory pertains how the poor people and others less privileged in society may have access to unrestricted financial services, which leads to the growth of economy and sustainable development. Financial literacy is the best way to achieve it, figure 1 illustrates the proposed conceptual model of the study.

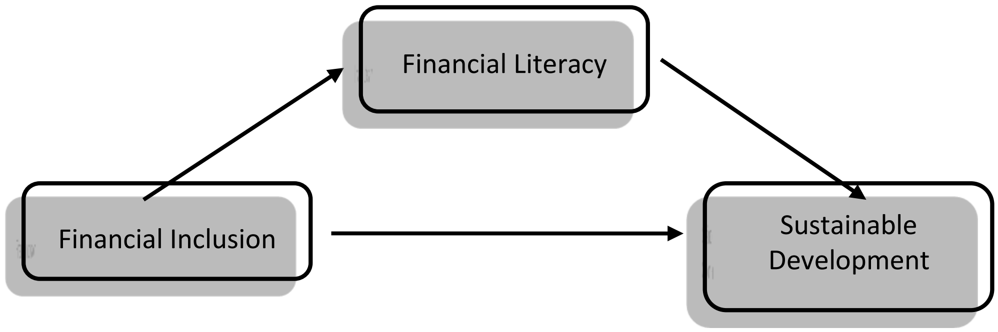

Fig.1: Conceptual model

Development of Hypothesis and Conceptual Model Relationship between financial inclusion and sustainable development

Researches on finance and economics shows a significant association among financial inclusion and sustainable development (Khan et al., 2021; Adah & Abu, 2019). A research study of Fine (2004) indicate economic development to improve or increase self esteem needs, living standards, increased choices and freedom from oppression. It also emphasizes HDI index is the accurate way to measure the sustainable development and also considers life expectancy and literacy rates, which influences the production and achieve economic growth inclusively. As stated by UNDP Alshebami and Al Marri (2022) HDI index produces more healthcare, education, environmental conservation opportunities and employment. It refers that every individual per capita income will increase. Hence, economic development may be more sustainable and meaningful if in growth plans human improvement may prioritized. The literature encourages FI financial inclusion to give access to financial services to recover the living standards of people and reduce the poverty level (UNCTAD., 2015). A scholar Sharma (2016) scrutinizes the association among different dimensions of financial inclusion and the ED of developing economy of india. The results of the study shows an optimistic impact between the two variables, particularly in accessibility of bank services, deposit, usage and banking penetration. Similarly, Babajide et al., (2015) examines the influence of financial inclusion on economic growth in Nigeria and the study reveals the factors that effects financial inclusion and economic growth. The study shows financial inclusion significantly impacts capital per worker and the total production that determines last level of outcome in the economy.

On the other hand, Adah and Abu (2019) examined relationship of FI and SD in Nigeria. The credit and capital makret penetrations was used as a proxy for financial inclusion and human development index for sustainable developmnent. The outcome of the study reveals that credit penetration is negatively and significantly impacting sustainable development but capital market is positively but non-significant towards the sustainable development.

Additionally, Khan et al., (2021) examine the effect of financial inclusion on income inequality, financial stability and poverty by using panel data for african economies. The study concludes that the financial inclusion plays a pivotal role in reducing income inequality, poverty and maintains the financial stability which leads economic development. On the basis of above discussion, this study suggests the following hypothesis:

H1. There exists a relationship among financial inclusion and sustainable development.

Financial Inclusion and Financial Literacy Relationship

Previously discussed, experts are keen in problems regarding financial inclusion and impact of financial inclusion on the economy that various researchs indicated were limited by financial literacy. The scholar Hasan et al., (2020) examine the association among FI and financial literacy and results of analysis shows a noteworthy effect of financial literacy to the process of FI. Investigation of Hasan et al., (2021) shows how FI influences inclusive finance. Three econometric models were used in the study namely probit regression, complementar log-log regression and logistic regression, to check either financial literacy significantly impacts on eradicating the hurdles which are preventing people from using and accessing financial services to raise their living standards in the society. As stated by Kou et al., (2021) information regarding different financial services effect in achieving access to finance. The variables like profession, income level, knowledge of interest rates and information of depositing and withdrawing money are optimistically impacting the access towards the finance. Financial access is challenging and hence, various international and national organizations related to FL are most impacting component of financial inclusion. According to Shen et al., (2019) study, unlikely internet usage, digital financial product usage showed statistically significant impact with financial literacy. Financial literacy is not only the component which infleunces the financial inclusion; however, combining financial literacy and internet usage can also develop financial access (Hasan et al., 2021). Likewise, Hussain et al., (2018) examines the association among level of education and business owner's usage of financial services and claimed that financial literacy effects firm's access towards the finance and its development. Moreover, financial literacy is considering as the crucial tool in the twenty first century in the economic and financial terms due to the increased use of technology. In this scenario, it is pivotal to obtain information to generate new methods to deal and handle financial technologies. The abovementioned literature helps to formulates the following hypothesis;

H2. There exists a relationship among financial inclusion and financial literacy.

The Mediating Effect of Financial Literacy on Financial Inclusion and Sustainable Development

The previous literature represents sufficient proof in finance and economics that financial inclusion plays a key role in sustainable economic development. The literature also depicts that FI and SD link is effectively associated with financial literacy. Therefore, united nation agency proposed financial inclusion and financial literacy strategies assissts in bridging gaps in inclusion by helping it where needed. Additionally, current cross country analytical proof claims that increasing financial literacy enhances the financial inlcusion nationally. Improved financial literacy would be beneficial for all the economies at various levels of financial and economic developmet (OECD, 2009). Financial literacy is related to the capability of people to progress economical facts and figures to generate timely formal decisions regarding wealth accumulation, financial planning, debt management and annuities (Paiella, 2016). The experts believe financial literacy comprises of financial knowledge, financial behavior and financial attitude (HUSTON, 2010).

Hence, stakeholders and policymakers may accomplish FI effectively by FL to make sure sustainable progress of the economy (Çera et al., 2020). According to the study of Hilgert., (2003) financial literacy impacts financial management behavior and performance which consumes more financial literacy having better financial behaviour. So, understanding financial behavior may lead access to financial services which improves the living standard of people and also enhances growth and economic development. The study of Kaur and Bansal (2020) examines the effect of financial services and products as mediating the connection among the financial access and MSME development in India. The main aim was to examine the role of financial services and goods acting as a mediator among financial availability of SMMS firms in under-developing economies. The outcomes of the study reveals that there is a significant impact of the mediator among the variables.

The study undertaken in the rural Uganda by Bongomin et al., (2018) established financial intermediaries as a mediating role between the FL and FI of poor people in underprivileged economies. The findings of the study shows that financial intermediaries plays a significant effect in mediating the financial literacy and financial inclusion. The lack of financial literacy raises the likelihood of unsecured personal loans and peer to peer loans (Wang et al., 2021). On the basis of the literature, financial literacy slow down the financial inclusion and can impede development of the economy (Koomson et al., 2019). Financial literacy is strongly associated in the development of economies and their financial system through boosting financial protection and decreasing down the un-employment. Consequently, having far reaching implications in the financial decisions (Kezar & Yang, 2010). Thus, financial literacy may mediates the associtaion among the FI and SD. On the basis of the above discussion, the following hypothesis are formulated by the study;

H3. Financial literacy mediates the association among the financial inclusion and sustainable development.

Methodology

Primary research design survey based questionnaire was used in this study for the collection of data and for analysis. Initially, 400 questionnaires were distributed, out of which 359 were completed and reliable for further analysis. The population of the study comprises of experts of development from national strategy for the development of statistics, centre for sustainable development, non profit organization and residents of Dhaka in Bangladesh. The statistical tool to examine the hypothetical model of the study is SMART PLS4 that is considered second generation data analysis technique and mostly used for complex structured model (Hair et al., 2021). The study examines the influence of financial inclusion on sustianable development with mediating effect of financial literacy. For the measurement of the variables five point likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used. Financial inclusion which is an independent variable in the study was measured by 5 item scales (Geraldes et al., 2022), sustainable development was measured by using 12 item scales of (ATMACA et al., 2019) and financial literacy was measured by using 7 item scale of (Onodugo et al., 2021).

For testing the measurement model of the study, reliability and validity of the items were examined by using PLS-SEM software. In addition, to examine the relationship among the variables bootstrapping test was conducted to accept or reject the proposed hypothesis (Magno et al., 2022).

Reliability and validity

To scrutinize the reliability and validity of the data, tests such as factor loading, AVE, cronbach's alpha, composite reliability and discriminant validity were undertaken. The discriminant validity contains two tests namely as; HTMT ratio (Henseler et al., 2015) and fornell and larckers (Fornell & Larcker, 1981). The threshold level for factor loading is > 0.6, which is illustrating in the below figure 2, depicting all the items meets up the threshold level (Gefen & Straub, 2005). The table 1 shows the value of loading, cronbach's alpha, composite reliability and average variance extracted. Threshold level for cronbach's alpha and composite reliability is >0.7 and for AVE is >0.5 (Ringle et al., 2020). Therefore, it is accomplished that this study develops internal consistency, composite reliability and convergent validity.

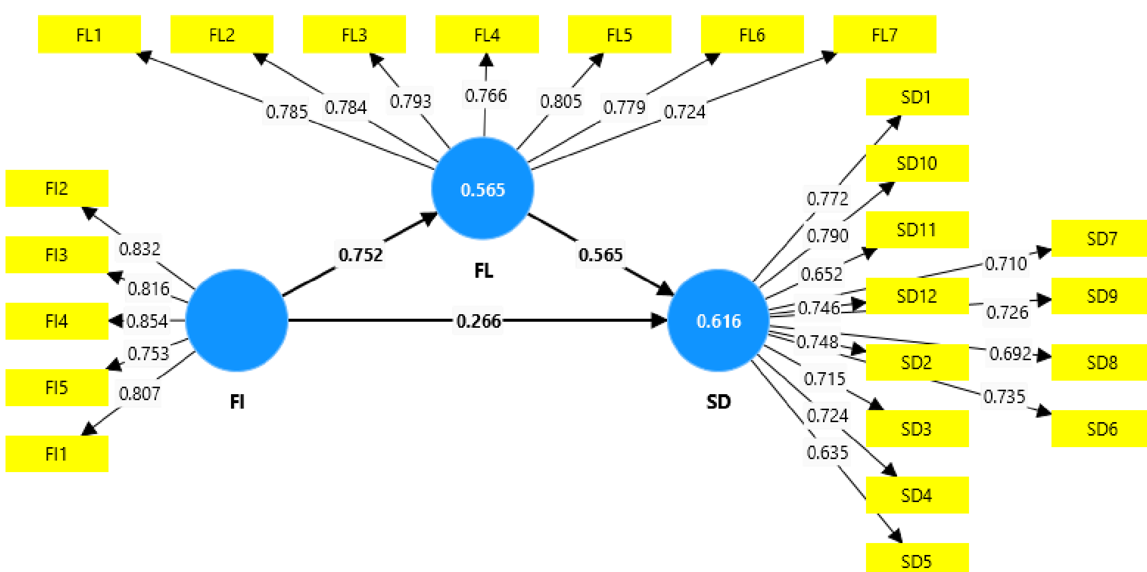

Figure 2. *Confirmatory factor analysis*

Table 1. Factor loadings and convergent validity

Constructs	Items	Loadings	Alpha	Composite reliability	Average variance extracted
FI	FI1	0.807	0.871	0.874	0.661
	FI2	0.832			
	FI3	0.816			
	FI4	0.854			
	FI5	0.753			
FL	FL1	0.785	0.890	0.890	0.603
	FL2	0.784			
	FL3	0.793			
	FL4	0.766			
	FL5	0.805			
	FL6	0.779			
	FL7	0.724			
SD	SD1	0.772	0.916	0.920	0.521
	SD2	0.748			
	SD3	0.715			
	SD4	0.724			
	SD5	0.635			
	SD6	0.735			
	SD7	0.710			
	SD8	0.692			
	SD9	0.726			
	SD10	0.790			
	SD11	0.652			
	SD12	0.746			

Source: Smart PLS

Discriminant Validity

Discriminant validity refers to the extent to identify the differentiation and uniqueness of the variables from each other before undergoing for the further analysis. The study assesses Fornell and Larcker correlation criterion and Heteroterait-monotrait (HTMT) ratio. The table 2 shows Fornell's and Larcker's criterion in which threshold value should be less than 0.85.

While, table 3 illustrates the HTMT ratio which is comparing it to predetermined threshold. Hence, if the value of HTMT ratio is higher than preceeding threshold, it can be concluded that there is an absence of discriminant validity. The benchmark value is 0.85. On the basis of the above mentioned criteria, all the consruct of the study have achieved discriminant validity.

Table 3: Fornell's and Larckers criteria

Variable	1	2	3
FI	0.813		
FL	0.752	0.777	
SD	0.691	0.765	0.722

Source: Smart PLS

Table 4: HTMT Ratio

Variable	1	2	3
FI			
FL	0.851		
SD	0.766	0.839	

Source: Smart PLS

Structural Model

Once the measurement model requirements are completed and satisfied then structural model is to be evaluated. Structural model consists of two processes, the path coefficient and the bootstrapping providing the researchers to determine the relationship of every coefficient. With the help of bootstrapping both direct and indirect relationships were analyzed. Taking into account the purpose of the study, the author analyzed the data with the help of SEM for both direct and indirect associations (Kenny et al., 2003). The both tests were conducted and presented in the figure 3 and 4 respectively. The value of R^2 between the independent and dependent variable is 61.6% respectively.

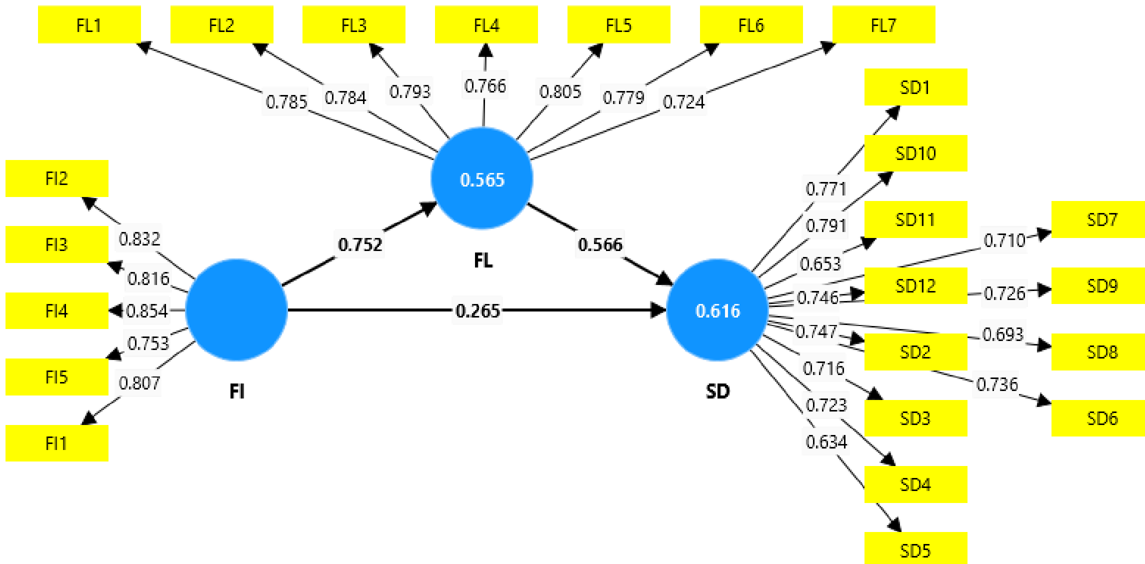

Figure 3. Hypothesis path structural model

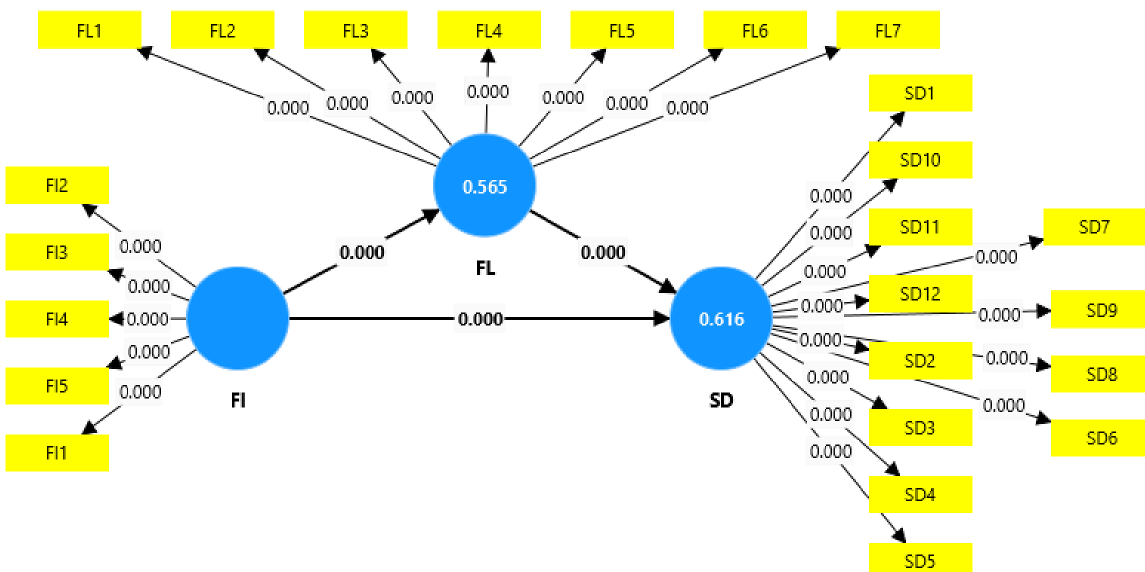

Figure 4. Bootstrapping structural model

Mediation Analysis

The study tends to find out the relationship between the variables by direct and indirect effects. The results show that financial inclusion has a positive and significant association with the sustainable development scoring a beta and p value of (β= 0.265,P< 0.001). The study depicts that financial inclusion is positively and significantly impacting on financial literacy with a beta and p value of (β= 0.752, P< 0.001). Additionally, financial literacy mediates the relationship between the financial inclusion and sustainable development with a beta and p value of (β= 0.426, P< 0.001). Hence, our all hypothesis are accepted.

Table 5: Mediation Analysis

H	Relation	OS	SM	S.D	T.S	P.V
H1	FI – SD	0.265	0.267	0.074	3.566	0.000
H2	FI – FL	0.752	0.753	0.032	23.136	0.000
H3	FI-FL-SD	0.426	0.425	0.050	8.522	0.000

Source: Smart PLS

Discussion

The aim of this study was to examine the impact of financial inclusion on sustainable development with mediating role of financial literacy. The results shows that financial inclusion has an optimistic and significant relationship with sustainable development. The finding of the study is in line with previous studies of (Kim et al., 2018) undertaken in other regions. The study of Rahman (2023) represents that financial inclusion promotes sustainability by having access towards the resources that fulfills basic needs such as clean water, food, educational chances and good health services. Similarly, financial inclusion is also positively and significantly associated with financial literacy which is supported by the prior studies of (Hasan et al., 2020; Shen et al., 2019) indicating that increase in financial inclusion also enhances financial literacy. Additionally, the findings depicts that FL is mediating the association among the financial inclusion and sustainable development and is supported by the studies of (Maturana & Nickerson, 2018; Berry et al., 2018). The results of this study claims that financial inclusion is crucial analyst of SD. Hence, access and usage of finance can make possible environmental, social and economical development.

Implications

The study results implies that FI effects organization access towards finance and its development. This depicts that information of individuals and firms regarding different financial services and products considerably influences finance promoting financial inclusion. The financial access can be improved by having awareness of factors namely; profession, level of income, depositing and withdrawing, and rates of interests. It means that when the customers have sufficient knowledge about the convenient location of financial institutions, have ease in banking transactions, loan processes are simplified, higher will be the financial inclusion. Hence, stakeholders and policy-makers may accomplish FI by adequate FL to achieve development of the economy and sustainability.

Furthermore, the study indicates financial inclusion may help in reducing differences in income, level of poverty, facilities of investment and reduces unemployment, leading SD. As a result, more economic, environmental and social growth can be achieved. The study also focuses on achieving SDG's goals such as SDG's 1 no pverty, SDG's 2 zero hunger, SDG's 7 industry, innovation and infrastructure, SDG's 12 responsible consumption and production and SDG's 17 partnerships for the goals. The next implication indicates that some factors like information of deposits and withdrawal of money, income level, occupation and rates of interests considerably effects the finance which promotes the sustainable development. It also facilitates the policymakers to improve financial inclusion in developing economies. Moreover, one of the most vital implication of this study is that when individuals recognizes and can understand products of financial markets to take formal decisions, specially related to risks and rewards, ultimately would be more financially included and leads towards sustainable growth. This describes that financial inclusion in emerging economies such as Bangladesh is effected by motivating for borrowing, saving and utilization of financial services and products that helps in achieving sustainability in the economy.

A new framework is added by testing mediating effect of financial literacy between the relationship of financial inclusion and sustainable development which adds new perspectives to the theories', novelty and extending the prior models in the field of SD literature. The factors identified in this research study, particularly in Bangladesh could take benefit for achieving sustainable development. The information regarding the profession, income level, interest's rates, deposits and withdrawal would lead to enhance the access towards the finance.

Conclusion and limitations

This study finds out the mediating impact of FL between the FI and SD. The study concludes that financial literacy mediates the association among the financial inclusion and sustainable development. Financial inclusion is a pivotal factor of sustainable development. The information about different financial services and products by individuals and firms promotes financial inclusion and facilitates socio economic development. The financial literacy by information factor like; depositing and withdrawing, income levels and interests rates may assisst to improve financial access, that optimistically impacts sustainable development. Therefore, FL is a crucial conduit by which FI provides reasonable services and products of finance that can be useful for the well-being of the society.

Due to the shortage of time, the current study is conducted in Bangladesh region, for further research work it may conduct on another developing economies or comparative studies can also be done to have a big picture. The sample size for the study was taken 359, future research work may increase the size of the sample for the same region. Another future work may also be conduct by adding a moderator and another mediator rather than financial literacy. The technique of sampling used in this study was convenience sampling that might create research bias and an inappropriate representation. Though, it was make sure to eliminate bias and to collect accurate data. Future studies may conduct the research with the help of different sampling technique for collecting the data.

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