

A Survey on Financial Inclusion: Theoretical and Empirical Literature Review

Shah, Shahid Manzoor and Ali, Amjad

Lahore School of Accountancy and Finance, University of Lahore, Pakistan, Lahore School of Accountancy and Finance, University of Lahore, Pakistan

2022

Online at https://mpra.ub.uni-muenchen.de/116327/MPRA Paper No. 116327, posted 14 Feb 2023 00:15 UTC

A Survey on Financial Inclusion: Theoretical and Empirical Literature Review

Shahid Manzoor Shah¹, Amjad Ali²

Abstract

Recently, policymakers and researchers have shifted their attention toward financial inclusion to control poverty, the black economy, tax collection, and financial development. Empirical and Theoretical literature shows that financial inclusion has become a fundamental requirement for economic development. This study provides a detailed literature review covering recent development in financial inclusion among different nations as well as in different reigns. This study highlights the major factors which influence financial inclusion i.e., financial literacy, financial innovations, financial regulation, financial stability, income, information communication technology, gender differences, cost of financial services, economic conditions, and political situations. These indicators are different across countries which becomes the major reason for variations in financial inclusion among countries. This study also highlights some demand-side and supply-side factors of financial inclusion. This study suggests that availability, accessibility, and usage are the major dimensions of financial inclusion which are measured by saving, lending, no of ATMs, no of bank branches, and no. of bank accounts. The study also has several dimensions of financial inclusion for future research.

Keywords: financial inclusion, financial technology, financial stability, financial institutions

1. Introduction

Presently, literature on financial inclusion highlights the disadvantages for financially excluded individuals and businesses, particularly for poor adults, females, and small and medium-sized enterprises in many developing countries. (Koonson et al., 2021; Oshors, 2021). In this globalized era, many policymakers, economists, and financial analysts in many countries have considered financial inclusion as fundamental to economic empowerment and the best solution to reduce poverty and to attain sustainable goals (Emara and Said, 2021; Mhlanga, 2021). Development of a modified delivery system in financial services encourage institutions to design tailored financial products and services for the financially deprived individuals. For achieving the desired level of financial inclusion, there must be easy regulations and flexible financial policies are necessary (Huang et al., 2020; Naumenkova, 2019; Beck et al., 2016). Modern delivery methods in the financial system i.e., mobile banking, agent banking,

¹PhD Scholar, Lahore School of Accountancy and Finance, University of Lahore, Pakistan

²Associate Professor, Lahore School of Accountancy and Finance, University of Lahore, Pakistan

microfinance banks, and hassle-free customer requirements are necessary to identify the underserved and unbanked population. All these policies and initiatives are helpful to enhance access for availing banking facilities for financially deprives individuals. Furthermore, it can generate chances for sustainable development that endure numerous economic shocks (Collard, 2014; Mbutor and Uba, 2013; Aduba and Kalunda, 2012).

The recent advancement in financial inclusion has boosted the practice of financial inclusion convergence, but still, there is a lack of comprehensive review of the literature to address this emerging issue. To address this issue, this study provides a detailed literature review. This study also highlights the recent enhancement in the literature on financial inclusion as well as some debates and problems in policymaking about financial inclusion (Usman et al., 2020; Bozkurt, 2018; Ali & Bibi, 2017; Ali & Audi, 2018; Ali & Rehman, 2015). The procedure of including as well as ensuring that financially deprived individuals are in the formal financial system for access to basic financial services is called financial inclusion (Allen, Demirgue-Kunt, Klapper & Martinez, 2016; Ozili, 2018). It gains the special attention of academics and policymakers for many reasons. Firstly, it is considered the major strategy for achieving the United Nations' sustainable development goals (Demirgue-kunt, Klapper & Sibger, 2017; Shay et al., 2015). Secondly, it supports enhancing the level of social inclusion in many societies (Bold, Porteous & Rotman, 2012). Thirdly, financial inclusion supporting to reducing the level of poverty (Chibba, 2009; Ali et al., 2016; Neami & Gaysset, 2018; Ali, 2022; Ali, 2022). Lastly, it brings numerous socioeconomic advantages to developing countries (Kpodar & Andrianaivo, 2011; Sarma & Pais, 2011; Ali, 2022). In every country policy maker and financial experts are developing policies to enhance the level of financial inclusion by providing a significant financial resource to financially deprived individuals.

Many prior studies investigate the several aspects of financial inclusion like helping to promote financial and economic development, financial stability, economic growth, and country-specific financial inclusion practices through financial institutions and microfinance services (Ghosh, 2013; Sarma & Pais, 2011; Cull, Demirgue-Kunt & Lyman, 2012; Hanning & Jansen, 2010; Ali, 2018; Kim, Yu, & Hassan, 2018; Mohan, 2006; Ali, 2015; Fung & Weill, 2015; Mitton, 2008; Ghosh, 2013; Mrshall, 2004). Technological advancement and financial innovations are playing a major role in enhancing financial inclusion (Donovan, 2012; Gabor & Brooks, 2017; Ozili, 2018, 2019; Audi et al., 2021; Audi et al., 2022). All these studies are still unable to provide the across countries and regions findings of literature review.

There is still a dire need for recent literature analysis to highlight the cross-country and regional development and experience of literature. In the existing literature overview of risk and returns

of the financial inclusion linked with credit, saving products, and insurance is highlighted, this review discusses the issues which were previously ignored (Chakrabarty and Mukherjee, 2021). This study consists of a simple methodology for the review of literature, which includes the most recent research publications. Most of the papers are published from 2000 to 2021. This study is structured as follows.

Section 2 will cover some theoretical and conceptual analysis section 3 will cover some emerging themes in financial inclusion Furthermore, section 4 divides empirical literature into different sections including a positive effect on panel and cross-section studies, a positive impact on time series studies, and a negative and casualty effect. Section 5 comprises a summary and conclusion.

2. Theoretical Literature Review of Financial Inclusion

This section highlights the theoretical literature review on financial inclusion. It starts with the definition and origin of financial inclusion. The literature on financial stability, financial development, and economic growth is also highlighted in this study. This study develops the fundamentals for the conceptual framework model. This study collects some major theories in the present era.

2.1.Definition

There is no universal definition of financial inclusion. As per literature the are many different views on what it means. The differences in meanings and definitions of enemata from the context in which it is used such as economic development and geographical area. Financial inclusion is a process of ensuring access to appropriate financial services to all financially deprives individuals and businesses at an affordable price fairly and transparently by institutional players (Chakravarty & Pal, 2013; Johnson and Arnold 2012; Triki Faye 2013; Labor et al., 2017; Demirguc-Kunt et al., 2014; Popescu, 2019 Lentner et al., 2020; Oshora et al., 2021). Timely and easy availability of financial services to financially deprived individuals and businesses when needed is the best way to enhance financial inclusion (Agarwal, 2010). It is the absence of prices or non-prices hurdles in the access and use of financial services (Hannig and Jansen, 2010; Nega and Hussein 2016). Additionally, it added its aim to boost financial services, which involves improving the level of financial inclusion for all individuals at reasonable prices.

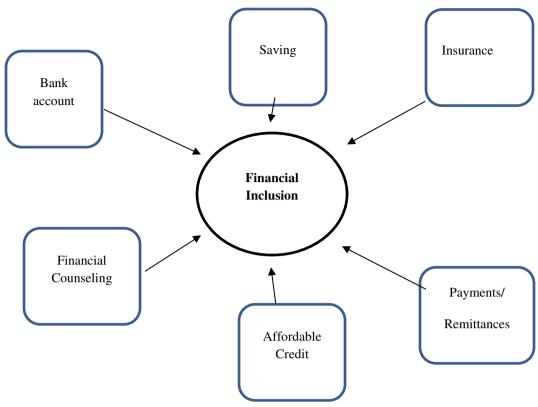


Figure-1: Source: Sahrawat, 2010

Providing full access and availability of modern financial services such as savings, credit, insurance, and payments along with efficient knowledge and support to help customers for making effective decisions for the use of available financial services (Demirguc-Kunt et al., 2017). It refers to the access to financial services for enterprises, households, and financially deprived individuals (Serrao et al., 2012 Beck, 2016).

For attaining higher sustainable growth financial inclusion is becoming the most important policy concern for policymakers and finance experts. The theoretical view of financial inclusion highlighted that it is drive force for attaining higher economic growth. It also demonstrates that finance boost growth (Schumpeter, 1911). According, to this approach financial sector, helps to enhance innovation, and efficiency in investment output which supports growth through its financial services, which also supports the accessibility of capital formation in the country. The banking sector seems to be more specified, cost-effective, and supportive for achieving the highest growth since capital formation is encouraged to attract business competition among banks and financial institutions.

3. Theoretical Foundation

3.1. Financial Growth Theories

The effect of demand following or supply leading on growth by creative environment and financial development is promoted by theories of finance growth. Low growth is due to income inequality as well as the lack of financial services access perceived by theories of financial

growth. Therefore, safe, easy, and affordable access to financial sources is known as the prcondition for fast-tracking growth and income inequalities for generating equal opportunities which support better economic as well social integration among economies to enhance the development of the financial sector to protect them against economic shocks (Aduda & Kalunda, 2012). The role of the financial system for economic growth has still been disagreed on theoretical grounds. Some economist suggests that the financial system plays a vital role in economic growth while other say it doesn't have a significant effect. According to the demand succeeding approach, it is argued that the financial system does not support economic growth, it responds to real sector progress while the supply-leading exponents contrast the former view. The basis of finance-led growth is suggested by Bagehot, (1873). The researcher who supports the finance-led growth hypothesis suggests that the presence of an efficient financial sector is very helpful for enhancing growth. Schumpeter argued that banks permit an economy to raise by providing sufficient financing facilities. Goldsmith, (1969), Mckinnon (1973), Levine and Zervos (1996), and Ndebbio, (2004) suggest that efficient financial systems and affordable financial services positively influence economic growth. It is also suggested that the supplyleading theory supports the involvement of the financial market to enhance the demand for financial services from an existing promising economy. Therefore, the financial system development is a major reflection of increasing growth in other sectors of the economy.

3.2. Theories of Financial Intermediation

When financial institutions bring together individuals with the deficit as well as surplus spending, its shows financial intermediation. This is the most important question that theories try to solve why investors did not lend directly to the borrowers rather than indirectly or through financial intermediatory (Ndebbio, 2004). I also suggested that banks are playing a vital role in the effective monitoring of borrowing and lending (Diamond, 1984). Diamond further reveals that financial intermediaries offer services through secondary financial products to buy primary financial products. The investor can buy primary assets more efficiently as well at a low cost by neglecting the financial intermediaries' services of financial providers. This direct link between lenders and borrowers enhances market friction. Market friction is considered the most perilous mechanism for creating persistent income inequality as well as helping to control the poverty trap (Aduda and Kalunda, 2012). It is also considered as the information asymmetry as well as transaction fees playing a vital role in motivating basic decision choice of physical and human capital accumulation (Demirgüç-Kunt et al., 2008). Theories indicating financial market deficiencies and capital accumulation examine the level of finance that which poor can borrow for investment or fulfilling physical capital needs. Most theories emphasize that

entrepreneurship and financial market imperfections identify the way through which financially deprived talented individuals can fulfill their financial needs to start projects or businesses. Therefore, progress for financial development, growth, and intergenerational income dynamics are closely linked. Efficient opportunities for finance for poor financially deprived individuals as well as businesses support efficient resource distribution all over the economy which will ultimately enhance economic growth.

Furthermore, financial market friction can be archived by financial inclusion. Because it supports information asymmetry which is necessary for market efficiency since every participant has no access to all information needed for effective decision-making. This lack of asymmetry information can create the problem of monopoly in information, moral hazard, and adverse selection. In the adverse selection model, the individuals with lack information about a basic understanding while, in moral hazard the unaware individuals have no information about the performance of the contract or cannot retaliate for the break of the contract. This lack of information creates high transaction costs for investors or borrowers. Raised transaction costs led to a higher price for products, is also enhanced financial exclusion. Financial inclusion initiatives are pitched to drop the transaction cost. The theoretical model directed that market imperfection in expanding financial opportunities for financially deprived individuals has a positive impact on overall growth (Demirgue-Kunt and Levine, 2007).

From the above theoretical discussion Schumpeter, (1911) supported by, King and Levine, (1993) suggest that the banking sector is considered the major financial intermediary which has a significant effect on long-term growth and productivity through capital accumulation. While, there is a huge difference between the financial system and the performance of the financial system due to geography, time, and dimensions (Honohan, 2004; Beck, 2007). Furthermore, empirical studies (Robinson, 1952) highlight the results of finance and growth studies can vary with time and circumstances, and results can be unidirectional or bidirectional. Lavin, (1993) also suggests that technological changes as well as capital accumulation are major channels of the financial system which have a strong effect on growth.

Additionally, Schumpeter (1911) view is supported by Goldsmith (1969), Michigan (1973), and Shaw who reveals that the financial system has a positive impact on economic growth. It further suggests that financial market factors such as interest rates enhanced demand for financial products and services which further increase competition among banks and other financial institutions. It also enhances saving and investment which will support economic growth. However, some theories reveal that there is a positive association between access to financial services and overall growth in the country (Sharma, 2016).

4. Emerging Literature Themes in Financial Inclusion

Emerging literature about financial inclusion from two major types is discussed in this section. The first part covers the emerging literature on countries as well as regional contexts. While second part analyzes emerging literature review by present development in the literature.

4.1. Countries and Regional Studies

This part of the literature review analyzes financial inclusion in many countries and regions covering Asian Region, the African region, the European region, the USA, and some other countries' specific contexts.

4.2. Country-Specific Studies

In this study present, literature is highlighted by countries' context according to different researchers. For example, Bongomin (2018) analyzed that in Uganda social consistency and social networks enhance the level of financial inclusion. Dematteis (2015) examines that in the EU migrant have a significant impact by economic constraints in Italy, which is mainly exposed to financial and social exclusion. The Financial, as well as social integration of migrants, needs greater attention from policymakers as well as financial experts. Nanziri (2016) analyze the financial inclusion concerning the gender gap in South Africa which, highlight that woman are mostly using formal financial products, services, and transactions as well as informal mechanism. While, men are mostly using formal credit, saving products, and insurance services in South Africa. Results of the study concluded that there is no difference in the welfare of men and women concerning financially included. Mitchell and Scote (2019) investigate financial inclusion in Argentina concerning tax revenue. The study concludes that the government of Argentina uses financial inclusion to enhance tax collection. For this purpose, the government of Argentina indulged more individuals into the formal banking sector so, that the use of credit, as well as debit cards, can be enhanced instead of using cash by consumers in consumption for meeting their demand for goods and services. The Study concluded that this process is very helpful to tax impositions as well as tax collection for the government. Ghosh and Bhattacharya (2019) investigate the level of financial inclusion in Bangladesh. This study shows that financial innovations are very helpful to deliver financial services which enhanced the level of financial inclusion. This study mostly focused on all the innovative financial services provided for poor adults as well as financially deprives females of Bangladesh. This study concludes that there is a significant relationship between financial innovations and financial inclusion. Ali (2019) investigate the hurdles in achieving Islamic financial services in Comoros. The major focus of this study was financially depriving women in Comoros. Results of this study show that financially deprived women of Comoros have no

money as well as the lack of information about financial services provided by formal financial institutions boosts them out of poverty. Wang and Shihadeh (2015) examine the level of financial inclusion in Palestine. The results of the study prove that the level of financial inclusion is raised in Palestine after joining the Alliance of financial inclusion to improve the national financial infrastructure.

4.3.UK and USA Context

Both of these developed countries have matching policies for the enhancement of financial inclusion. A comparative study of enhancing financial inclusion is conducted to highlight the strategies developed by the British and US government, this study investigates that financial inclusion is the major issue and little attention is paid to the broader link among individuals as well as their locations which is most important for improving their contribution in the formal financial sector. This Study shows that the British policies for financial inclusion provide the best solution to this issue of financial inclusion by providing equal access to financial products provided by the bank as well as other financial institutes but the lack of cooperation among financial institutions and the bank is a major hurdle for achieving a higher level of financial inclusion (Marshall, 2004). It is also investigated that the people of the UK outside the formal financial system facing many problems such as the high-interest rate on borrowings, lack of income accounts, insurance accounts, and high cost of utilities. It also reveals that financially included individuals enjoy these facilities at the cheapest rate. It is noted that 2 million adults were there with formal bank accounts in the UK between 2005-06, which was at 2.6 million in 2002-03. This decline is observed due to the difference in the characteristics of financially deprived individuals because every individual does not have a high income but still, there is notable progress in financial inclusion in the UK (Mitton, 2008). Collard (2007) also investigated the level of finances in the UK during 2006-07 under the perspective of digitalization. The results of this study reveal that the UK is making progress toward becoming a cashless economy, and the circumstances of being financially excluded in becoming more serious. While payment through mobile accounts is becoming most popular in the USA. It helps individuals to get a wider range of access to cheaper financial products and services. Thus, increased advertisement of mobile payments in the USA inspires more advertisement rather than creating financial products and services for the unbanked population to enhance financial inclusion, such activities need some rules and regulations to be applied for the access of mobile banking as well as mobile payment services to the individuals to make sure the payment services as well as payment system more helpful for better financial inclusion (Fonte, 2012).

4.4.African Context

In the African region financial inclusion gained much attention among policymakers, economists, and financial analysts. Many studies highlight that financial inclusion emerging in the African region in recent eras. African countries' banking system is becoming witnessed for an enhanced level of financial inclusion, especially foreign financial institutions and banks of emerging markets support better access to financial products and services in African countries. It is also investigated that the presence of banks and financial institutions from Europe and the US hurts financial inclusion in African countries (Simbanegavi, 2014). Empirical studies investigate the factors of financial inclusion in the case of 37 African countries and concluded that factors such as the income of individuals, education level as well as the greater link with the formal financial system are considered major elements of financial inclusion in African countries (Zins and Weill, 2016). Increased financial innovations also significantly contribute to the enhancement of financial inclusion in African countries. It is also suggested that financial innovations help to remove the infrastructure problems. Empirical studies also reveal that there is a strong connection between mobile phones, internet users, and financial inclusion in African countries during 2000-16. These factors are very helpful for individuals to attain more financial products and services, which enhanced the level of financial inclusion (Allen et al., 2014 Evan, 2018). Chikalipah (2017) also highlighted the literacy rate as a helpful indicator of financial inclusion for Sub-Sahara Africa in 2014.

4.5.European Context

Financial inclusion in the European region is raised by making easy and affordable access to financial services, updating credit markets, and increased the number of borrowers by creating stability in the financial markets. Financial markets are different across Europe but the ultimate objective of every market is to provide easy and affordable access to financial services to every individual as well as business (Bakar and Sulong, 2018). Sinclair (2013) highlighted financial inclusion in Britain as per the European perspective and concluded that affordable access to financial services for low-income individuals exists in Britain. It is also concluded that there is a contradiction among the bank, British banks avoid providing services to financially deprived individuals and businesses. Corrado and Corrodo (2015) investigate the major determinants of financial inclusion among 18 Eastern European countries and 5 Western European economies by using socio-economic and demographic data from about 25000 households in Europe. The data for these individuals is collected with the help of the second round of the life in transition survey conducted during the time frame of 2007 to 2008. The study examines that during the financial crises time unemployment and low-income shocks have much effect on households. Furthermore, especially in Europe loan without any asset's collateral is considered financially

excluded. The major step for promoting financial inclusion in five large economies of Europe i.e., Germany, France, the UK, Italy, and Spain is noticed to increase access to financial services for deprived individuals as well as businesses. This can be achieved through the subsidization by the government on bank loans to promote small-scale businesses as well as financially deprived individuals (Infelise, 2014). Comparato (2015) reveals that financial inclusion plays a critical role in promoting society as well as economic growth. It is also concluded that in Europe the credit markets are well-developed for promoting financial inclusion.

4.6. Australian and Asian Context

Empirical studies highlighted that financial inclusion is considered the most important concern of policymakers in Asia as well as in some Australian countries. Australia also adopted the financial inclusion model of the UK. Fungacova and Weill (2015) investigate that a higher level of financial inclusion is achieved by China through the extensive use of formal bank accounts, savings, and other financial services in contrast with other BRICS economies. It is also highlighted that individuals outside the financial system are the main volunteers in China. It is also observed that individuals with no formal bank accounts are not availing of credit facilities from formal financial institutes. They borrow the amount from their family and friends to meet their financial needs. Furthermore, it is concluded that better education, higher income, gender difference, and age level are strongly linked with the use of formal bank accounts as well as formal credits in China. Tsai, (2017) explore that China is observed a volatile increase in fintech products and services. From 2016 to 2020 government of China developed strategies to encourage the use of web-based services and digital technologies to enhance financial inclusion as well as social stability.

Chakravarty and Pal (2013) reveals that in India during 1977-90 many social banking policies are developed to enhance the level of financial inclusion across the numerous states of the country. While pro-market financial sector policies hurt the level of financial inclusion in India. Kumar, (2013) investigate the major determinants of financial inclusion in the case of India and identified that number of factories, employees, and branch networks are strongly associated with the level of financial inclusion. Ayyagari and Beck, (2015) conduct analyses in developing regions of Asia, which highlighted that less than 27% of developing Asian adults had bank accounts in the formal financial sector while, only 33% of businesses are using formal financial services i.e., loans and deposits from financial institutions. They also indicate geographical access; lack of identification and high cost of financial products and services are the big hurdles to financial inclusion for the developed area of Asia. Financial inclusion is significantly

contributing to overcoming poverty levels and removing the equal distribution of wealth (Park and Mercado, 2015). Godinho and singh (2013) investigate that in Australia remote indigenous societies are considered the most ignored community in terms of financial inclusion. It is also investigated that in these communities most peoples have access to cell phones and mobile banking is also popular in these societies but still, they are outside the formal financial system.

4.7. Middle East and North African (MENA) Region

In MENA countries it is mostly observed that low-income countries are out of the financial system. Empirical studies investigate that policymakers aim to provide financial services to low-income individuals in MENA economies. Neaime and Gaysset (2018) reveals that in how poverty is controlled by financial inclusion from 2002 to 2015. They also investigate that an increased level of financial inclusion helps to reduce poverty. Income inequality can also be reduced with the help of financial inclusion. Whereas, it is examining that increasing inflation, population growth, and trade openness can cause to enhance the poverty level in MENA countries. Naceur et al., (2017) analyze the relationship between financial inclusion and Islamic banking, which is not meeting the expectations of policymakers and economists in MENA countries because the use of financial services did not increase as per expectations. Pearce (2011) examine the level of financial inclusion in MENA economies and conclude that there is a dire need for financial regulations supervision and framework which enhance the access of primarily finance through formal financial institutions. Furthermore, ensuring regulatory framework and agent mobile banking technology, model of providing finance by microcredit leasing, and practical competition among financial services providers should be enhanced in these economies. To increase the market demand for financial products and services the hurdles of Islamic financial services are efficiently removed so that financial inclusion can be enhanced. Akhtar and Pearce (2010) investigate the factors enhancing financial inclusion in MENA countries. Major factors in promoting financial inclusion are electronic payments of salaries and pensions, mobile and branchless banking, Islamic microfinance, basic bank accounts, leasing, factoring, insurance, and using postal services. While, some challenges i.e., weak financial infrastructure, and lack of robust regulatory framework exist in these regions. The unwillingness of non-governmental organizations for enhancing financial inclusion is also a big hurdle due to religious and political contradictions in the region. After analyzing the literature, it is observed that there is still a dire need for work on financial inclusion in MENA nations.

4.8.International and Regional Context

Turegano and Herrero (2018) examine the impact of financial inclusion in reducing poverty and income equality in cross-country analysis by using economic development and fiscal policy as controlling variables. This study investigates that financial inclusion significantly contributes to eliminating poverty as well as equal distribution of income while the size of the financial sector does not enhance financial inclusion. Kabakova and Plaksenkov (2018) investigate the factors promoting financial inclusion in developing countries and highlight the economic, political, and sociodemographic factors of financial inclusion which are significantly linked. Yangdol and Sarma, (2019) reveals the demand side factors of financial inclusion. They highlight that women, uneducated, jobless, and poor individuals are inversely linked with financial inclusion. On the other hand, higher education levels and higher income have a positive association with financial inclusion. Owen and Pereira (2018) analyze 83 economies by using a data frame of 10 years and investigate that greater banking and industry concentration is strongly linked with more access to deposit accounts, loans, and other financial transactions. This study also suggests that easy financial regulations help to increase financial inclusion by providing financial activities at large scope in developing countries.

5. Empirical Review Literature

Existing studies highlight contradicting evidence links between financial inclusion and its impact on individuals or household poverty and financial stability as well. Empirical studies investigate the level of financial inclusion in different countries by using different methods as well as different explanatory variables. Since the last two decades too much effort dedicated to financial inclusion phenomena. Much empirical evidence (Marron, 2013) has analyzed and explored the concept and meaning of financial inclusion as originated in Britain in the 1990s. The author reveals that the market players are responsible to conceals neoclassical premises of financial inclusion. The weaknesses in financialization as well as the financial innovation process are considered helpful to enhance financial inclusion like access to financial services and some other financial transactions (Polillo, 2011 and Kear, 2013). During the financial crisis of 2007-08, it is observed that there is a negative impact of credit expansion on lowincome individuals (Bayulgen, 2013). The study also highlights that this negative impact of credit expansion has a direct effect on the lending decision of banks to certain sectors of the population. This study also suggested that better supervision is needed for making lending decisions. Hudon (2009) also highlighted that there should be equal and easy access of financial access for every individual in the economy. The study also highlighted that overcome the harmful consequences of credit instead of controlling credit. All accept of life i.e., fairer, gentler, and kinder are majorly claimed the easy access to financial products (Kear, 2013).

Many existing researchers (Salignac et al., 2016: Salignac et al., 2019) investigate that financial inclusion is not measured properly in terms of access to financial services, it is better to understand how financially deprived people react to adverse financial events. These studies suggest individuals and technical analysis, resilience and ecological system and a hostile analysis understand the reaction of individuals to economic and financial shocks. These studies explore the new framework for financial inclusion such as credit scoring which still needs to explore (Hudon, 2009; Bayulgen, 2013; Yunus, 2007 and Evan, 2018; Loureiro and Gonzalez, 2019). (Corrado and Corrado, 2015) investigate the determinant of financial inclusion as well as the probability of using financial services. During 2008-2010 they investigated the geographical measures of financial inclusion in Europe during a transition phase survey conducted by the world bank. Financial decision-making, as well as socio-economic information, are collected and analyzed through this survey which comprises 25000 individuals across 18 countries of eastern Europe and 5 western European countries. The crisis of 2007 still existed and the survey highlights the measures of financial inclusion through individuals who succeeded in getting bank loans and other financial services. Surprisingly, according to empirical studies, results show that financial inclusion as a function of the location of residence, type of employment, level of income, education level, marital status, age, religion, and ethnicity of the family is the major likelihood of financial inclusion. Determinants of banked and underbanked individuals are investigated in empirical literature to focus on vulnerable groups. The major focus was on the integration of the risk of poverty and financial inclusion during 2015. Results reveal an inverse impact relationship between socially excluded individuals and the intensity of the use of financial services. This study examines two major demographic factors such as gender and age which have a significant impact on financial inclusion. Most people under consideration were under the bank in Latin America as well as in Africa. Furthermore, both unbanked and underbanked individuals were linked with low-income and unstable job situations. Origen of individuals, income/job circumstances, and access to financial services are three different profiles of financial inclusion which are highlighted by this study (Fernndez et al., 2018; Islam and Simson, 2018; Koku and Jagpal, 2015). Empirical studies (Caplan, 2014 Birkenmaier, 2018) investigate that savings, investment, mortgage loans, and employee retirement accounts have a positive and significant impact on financial inclusion. While the use of auto loans and credit cards harms financial inclusion. The difference in the demand and supply of financial services based on the racial wealth gap in the USA is examined (Burton, 2018). The findings of empirical studies (Deku et al., 2016) highlighted that the series of financial services to consumers i.e., access to credit and intensity of borrowing are considered the weaker in the UK. Burton (2018) also highlighted that unequal distribution of financial services based on socioeconomic status is considered as the reflection of competition for limited resources discourse of deserving as well as undeserving individuals. Joassart and Stephens (2010) suggest that nationality, income, and the higher cost of financial products are strongly linked with financial inclusion. Online banking, digitalization, and technological advancement are suggested as helping tools for making easy access to financial services in both rural as well as in urban areas (Horska et al., 2013; Simpson and Buckland, 2016 Coppock, 2013). Kosse and Vermeulen (2014) examines that the use of informal channels of sending remittances increases when the use of mobile phone technology increased. Some empirical studies also highlight the risk and negative impacts of digitalization. Kear (2017) investigate that the invention of the latest technology and big data for credit scoring implements a data tax for those who have fewer resources. Additionally, many authors conclude that technological advancement and digitalization seem to be neutral phenomena neither negative nor positive for financial inclusion.

Dupas and Jonathan (2009) examine that there is no evidence about saving accounts squawking other investments or bad shocks. This study also reveals that saving has a more positive significant effect on women than men. Hannig and Jansen (2010) investigate the impact individuals attribute on micro-credit usage by the owner of businesses for the expansion of business activities or raise the investment rather than raising consumption. The study also highlights that health, education, and women empowerment do not significantly affect financial inclusion. While financial inclusion is very helpful to eliminate poverty. Bugress and Pande (2005) investigate financial inclusion in India by using the opening of commercial bank branches using state-led strategies linked with poverty reduction among unbanked individuals in rural areas. This study only focuses on the presence of bank branches which, does not show the level of financial inclusion accurately. This study did not present the ultimate solution for increasing financial services access to eliminate poverty. The expansion of banking services did not ensure the increased use of financial products by the poor and financially deprived individuals unless quality cannot be ensured, fees cannot be controlled and trust can't be developed (Robinson, 2012). This study focuses only on demand-side factors of financial inclusion while it has supply-side factors as well which were ignored. The finding of the study of (Mutua and Oyugi, 2007) are also in line with existing findings that financial inclusion is positively linked to financing programs that contribute positively to reducing poverty. Results of the study also reveal that the mobilization of savings of rural individuals as well as the potential of utilization of the unique banking services is also supporting to enhance the level of financial inclusion and elimination of poverty. Additionally, the formal banking institution is trying to cover the gap between the services provided and services required by individuals in the rural as well as urban markets by increasing the bank branches in these areas and making lenient policies for promoting financial inclusion. Many individuals borrow and save money to invest (Lemma and Rud, 2010). While, most individuals borrow and save money for expenditures, however, meeting daily operating expenses is the most important need of households. The study also highlights some other objectives of saving such as investing in education, attaining health facilities, livestock farming, and formulation of new businesses. Saving also can be used for more than borrowing. Both men and women have the same attitude toward saving as well as borrowing of the finance. Many individuals even poor and financially deprived save money for a variety of investment objectives. The study also reveals that educated people have more borrowing and saving behavior as compared to uneducated. The study investigates that both formal and informal sources of finance are used by individuals but most people avoid formal financial services due to the high cost of borrowings as compared to lack of money. Halwe (2010) analyzed the saving pattern and need for credit for tribal families of different areas in India which suggest that poor individuals use financial intermediation more seriously as well as dedicate substantial efforts to the discovery of a practical solution. It is noted that mostly poor individuals continuously engage in many financial transactions without using formal financial services which are most affordable and easy to use. This study only focuses on demand-side factors of financial inclusion. Furthermore, this study ignores the supply-side factors as well as the benefits of formal financial services.

From a household perceptive the role of microfinance interference is also observed in various districts of India. The results suggest that financial inclusion is considered the strategy for poverty reduction as well as indebtedness in the formal financial institution. This is also seeming as alarming for the financial sustainability and overall stability of the financial system (Barman et al., 2009). This study also highlights the importance of credit information before the disbursing of a credit facility. It is also stated that the moneylender with a high-interest rate is still attracting customers. This study gives the ultimate solution to enhance financial inclusion. Chattopadhyay (2011) also highlights financial inclusion by using a multidimensions strategy for constructing the financial inclusion index. This study used three major dimensions of financial inclusion i.e., availability, penetration, and usage of the banking system. This study highlights many factors of financial inclusion like occupation, literacy, and some other banking services. These factors and dimensions of financial inclusion also investigate by many other

empirical studies (Sarma and Pias, 2011; Ruiz and Porras, 2009). All these studies highlight the different dimensions of financial inclusion for index construction.

6. Recent Development in Literature

This section of the study highlights some emerging areas of development in the literature on financial inclusion. Emerging literature reveals that there are many strategies for enhancing financial inclusion like financial literacy, financial innovation, financial stability, and financial technologies. All these factors are considered critical success factors for enhancing financial inclusion (Kapadia, 2019; Ozili, 2018; Beck et al., 2014)

6.1. Financial Inclusion and Financial Literacy

Many researchers (Kapadia, 2019; Atkison and Messy, 2013 Ramakrishnan, 2012) investigate the role of financial literacy in enhancing financial inclusion. Empirical studies concluded that financial literacy such as saving, use of loans, and the management of money is positively linked with financial inclusion. It is evident that in India financial inclusion is promoted by financial education furthermore, it enhances the living standard of households. It is also suggested that low financial inclusion is linked with a lower level of financial literacy as well as bad educational policies. Empirical studies also highlight the significant association between financial literacy and financial inclusion in Ghana (Adomako et al., 2016; Grohmann et al., 2018 Nelson, 2011). These studies also highlight the same conclusion in cross-country analysis.

6.2. Financial Inclusion, Financial Innovation, and Technology

Some empirical studies investigate the impact of financial innovation and technological advancement in promoting financial inclusion because the existing structure and process of the financial system are very poor for promoting financial inclusion (Al-Mudimigh and Ansari, 2020; Beck et al., 2014; Chinoda and Kwenda, 2019; Ouma et al., 2017). Financial innovation is considered as technological advancement, development new of financial instruments as well as improved delivery of financial products and services. Ouma, 2017 highlights that financial innovations such as the use of cell phones are used to enhance financial inclusion through saving as well as other financial transactions. Chinoda and Kwenda (2019) reveal that the use of cell phone as well as technological advancement play a significant role in promoting financial inclusion in 49 selected countries. Anshari (2020) examines that the countries with a large number of internet users as well as a large number of FinTech organizations help raise the level of financial inclusion, particularly for individuals outside the banking system. Empirical studies also highlight the substantial growth in the level of financial inclusion in Africa due to technological advancement. Smart-phone lending, women empowerment, entry

of foreign banks, and creation of microfinance intuitions are also analyzed as the latest advancement in financial system strategies for promoting financial inclusion (Bravo et al., 2018; Shetty and Hans, 2018; Chen and Divanbeigi, 2019; Leon and Zin, 2019). Furthermore, optimal monetary policy, agent banking, improved financial protection, strong financial capability, and integration of post offices into the financial system are considered the major indicators of promoting financial inclusion (Yi et al., 2018; Naceur et al., 2017; Mehrotra and yetman, 2014; Anson et al., 2013; Pollin and Riva, 2002; Kimmitt and Munoz, 2017; Pati, 2009; Diniz et al., 2012 and Dias and Mckee, 2010). Empirical studies also highlight that distance between bank and customer as well as the point of sale of financial products and services and other financial transactions raises the level of financial inclusion (Sherraden, 2013; Demirguc-kunt and Klapper, 2012; Banka, 2014; Donovan, 2012 and Aggarwal and Klapper, 2013).

The majority of researchers, scholars, and policymakers investigating financial inclusion are linked with some major developed organizations or developed research centers in educational institutions, which reveals the major conflict of interest. Most institutions i.e., the Asian Development Bank (ADB), World Bank (WB), African development bank (ADB), the International monetary fund (IMF), Central bank of every country, Alliance of Financial Inclusion (AFI), Fund research projects are pro-financial inclusion and the results of these studies are tailored or reasonable to encounter the prospects. Results of google scholar show that most of the search on financial inclusion is done by developed institutions' scholars and researchers.

6.3.Financial Inclusion and Regulations

In recent eras, policymakers are continuously working for promoting financial inclusion by developing favorable financial standards throughout the world (Andriosopoulos et al., 2019). These uniform standards and policies increase the inspection and regulations of financial inclusion in the countries. Further investigation is needed for developing favorable financial regulations and how these policies, regulations, and practices help achieve a higher level of financial inclusion globally (Beck, 2017; Currie, 2006).

Many empirical studies use various methodologies and time frame to analyze the relationship of financial inclusion with various explanatory variables.

			Ta	able.1		
Sr.	Author	Time	Variables		Methodology	Conclusion
No		Frame				
1	Koomson &	2012-	Financial		2SLS, PSM	Findings of the study
	Danquah,	2017	Inclusion,			reveal that the
	2021		Poverty,	age,		financial inclusion is

			gender, education, marital status, geography, employment		negatively linked with household energy poverty while it is positively linked with per capita income, education and employment. Study also highlights that gender, age and marital status also inclusion the financial inclusion and poverty.
2	Oshora et al., 2021	2020	Institutional factor, supply side factor, demand side factor, market opportunity, cost of borrowing, collateral requirement and financial inclusion	Descriptive statistics, frequency distribution, model summery, Anova test, OLS estimates	Results of the study suggest that supply and demand side factor of financial inclusion has positive impact on financial inclusion while, institutional factors have negative impact on financial inclusion.
3	Aduda & Kalunda, 2012	2012	Financial inclusion & financial stability	Banking model	Findings of the study highlight that there is positive and significant impact of financial inclusion on the stability and development of the countries as well as the development of people.
4	Usman et al., 2020	1990- 2017	Financial inclusion, renewable energy, non-renewable energy economic growth	Descriptive statistics, cross section dependency test, panel stationarity test, panel cointegration test, panel causality test & ARDL	This study highlights that financial development, energy utilization, trade openness is significantly and positively linked with environment quality and economic growth in long run. Additionally, in growth function, financial development, renewable and nonrenewable energy significantly linked

					with the economic
5	Bozkurt et	2011-	Financial	Spatial	growth in long-run. This study concludes
	al., 2018	2014	inclusion, social factor & banking factors	regression, spatially autoregressive or lagged model (SLM), OLS	that social factors are positively associated with financial inclusion. This study also highlights that convergence of financial inclusion among countries in the world by examining the spatial regression. Furthermore, results reveals that negative spillover of west Africa and central Asia. Finding of the study also reveals that banking profitability may be raised by previously unbanked
6	Allen et al., 2015	2011	Financial inclusion, income, age, geography, unemployment, education	2SLS	population. This study shows that better financial inclusion is linked with lesser account costs, better proximity to financial mediators, stronger legal rights, and more politically stable environments.
7	Ozili, 2017	2017	Financial inclusion & digital finance	Discussion based on empirical studies	Results of the study highlight that Digital finance over Fintech providers has positive impact on financial inclusion in developing and developed countries, furthermore it highlights that that digital finance delivers to individuals with low and variable income is often more appreciated to them than the higher cost they will pay to obtain

					such services from
					conventional regulated banks.
8	Kim et al., 2017	1990- 2013	Financial inclusion & Economic growth	Arellano and Bond, generalized method of moments (GMM) & Panel Granger causality test	Results show that financial inclusion significantly and positive effect the economic growth. Results also displays bi directional link among financial inclusion and economic progress.
9	Chibba, 2014	2002- 2005	financial inclusion, poverty reduction & millennium development	Explanatory Financial Inclusion Models	Results of the study propose that financial inclusion is a comprehensive change and poverty reduction policy that establishes itself as part of the developing financial inclusion, poverty reduction and millennium development goals nexus. While, the current global situation highlights the need of scale-up the financial inclusion so that the millennium development goals can be attained.
10	Neaime & Gaysset, 2017	2002- 2015	Financial inclusion, population size income equality & inflation		Results of the study show that financial inclusion can cause a decrease in income inequality, while, population size and inflation cause to surge income inequality. Results also reveals that financial inclusion has no effects on poverty, while, population, inflation, and trade openness are all found to

					significantly increase poverty.
11	Sarma & Pais, 2008	2004	Financial inclusion, literacy, income inequality, NPA, CAR economic, human development, development & urbanization	Regression Analysis	Results of the study show that human development, socio-economic factors, income, literacy and urbanization has positive and significant impact on financial inclusion. while, banking sectors variable such as NPA and CAR has negative impact on financial inclusion.
12	Cull et al., 2012	2012	Financial inclusion & stability		Results of the study highlight that Four factors come into play: financial inclusion, consumer protection, financial integrity, and financial stability. These factors are inter-related and, under the right conditions, positively related with each other.
13	Kim et al., 2017	1990- 2013	Financial inclusion & economic growth	Panel VAR, Arellano Bond dynamic panel regression	The results show that financial inclusion has positive and significant impact on economic growth in OIC countries.
14	Mohan, 2006	1981- 2005	Economic growth, financial deepening and financial inclusion	Descriptive statistics, correlation matrix	Results of the study show that with growing liberalization and raising economic growth and economic activities. To meet the raising demand of credit banks, need to mobilize resources. This can be only possible by strengthening the financial inclusion. Thus, financial inclusion will lead to

						financial development in countries which will help to hasten economic progress.
15	Fungáčová & Weill, 2014	2011	Financial inclusion, income, education gender	age, and	Descriptive statics, probit regression model,	This study finds that higher income, better education, being a man, and being older are linked with superior use of formal accounts and formal credit in China. Income and education effect the use of alternate sources of borrowing.
16	Chakravarty & Pal, 2010	1981- 2007	Financial inclusion		Descriptive statistics, correlation matrix & PCA	The methods of constructing financial inclusion measure and specifying axioms are readily implemented using appropriate data. This study has also indicated how the financial inclusion measure can be employed for a policy purpose. These features make this measure quite attractive.
17	Johnson et al., 2012	2006- 2009	Socio- economics factors, demographic factors, geographic factors financial inclusion	ic &	Probit regression model,	Results of the study show that socio economic, demographic and geographic factors are positively and significantly linked with the level of financial inclusion.
18	Ibor et al., 2017	2017	Financial inclusion		Descriptive statistics and Pearson chi- square	The findings of the study show that financial inclusion has positive and significant impacts on the procedures and growth of SME's.
19	Nega & Hussein, 2016	2013/2014	Financial inclusion, gender,	size,	Logit regression	The findings of the study reveal that access to finance is

			agriculture & trade		significantly influenced by the age of the firm, firm's preceding engagement with banks, experience of the manager and firms managed by owner (owner-manager).
20	Emara & Kasa, 2020	1980- 2018	Financial access & domestic saving	Descriptive statics & GMM	The results of the study with full sample indicate that improvement in financial access may initially increase the savings rate leading to an increase in savings.
21	Ndebbio, 2004	1980- 1989	Financial deepening and economic growth	Ordinary least squares (OLS)	Results of the study reveal that financial deepening has positive and significant impact on financial inclusion.
22	Beck et al., 2007	1980- 2005	Financial development, income & poverty rate	Descriptive statistics & Ordinary least squares (OLS)	This study concludes that financial development excessively helps the poor. Better financial development encourages the incomes of the poor to raise quicker than average per capita GDP growth, which lowers income inequality.
23	Sharma, 2015	2004- 2013	Financial inclusion & economic growth	VAR, Granger causality	The results of the study suggest there is a positive association among economic growth and various dimensions of financial inclusion. furthermore, Granger causality analysis highlights a bidirectional causality among geographic outreach and economic development and a

					unidirectional causality between the number of deposits/loan accounts and gross domestic product.
24	King & Levine, 1993	1960- 1989	Finance & economic growth	Pearson Correlations & ordinary least square	Results of the study show that numerous measures of the level of financial development are strongly linked with real per capita GDP growth, the rate of physical capital accumulation, and improvements in the efficiency with which economies employ physical capital.
25	Nanziri, 2016	2006- 2011	Financial inclusion	Descriptive statistics & OLS	This study finds that females mainly use formal transactional products and informal financial mechanisms, while men mainly use formal credit, insurance, and savings products. Despite this pattern in the use of financial products, a quantile regression analysis shows that there is no statistically significant difference between the welfare of financially included men and women.
26	Mitchell & Scott, 2019	2000- 2015	Public revenue, financial inclusion & value added tax	Ordinary least square (OLS)	Results of the study show that as financial inclusion drew more people into the formal banking system, consumers began to use less cash and more credit and debit

27	Marshall, 2004	2004	Financial institutions, policies & financial inclusion	Discussion based Descriptive	cards causing more consumption to occur in formal markets ("easily taxed") and less in informal markets ("less taxed"). Results of the study show that British policies seek to provide joined-up solutions to financial exclusion in a way that is more in tune with an integrated financial sector where a small number of large banks compete on a level playing field with other financial institutions The empirical results
20	2016	2014	inclusion	statistics, correlation matrix & ordinary least square (OLS)	in this study specify that illiteracy is the major hindrance to financial inclusion. The results provide useful information to government agencies and international development organizations. Also, the results can help accelerate and strengthen financial inclusion strategies among countries
29	Kumar, 2013	1995- 2008	Financial inclusion, population density, deposit, credit, time, employee	Panel fixed effects, GMM	Results show that branch system has positive and significant impact on financial inclusion. furthermore, using test for convergence it is found that regions tend to maintain their respective level of banking activity, with no support for closing gap.

30	Naceur et al., 2017	2004- 2013	Financial inclusion & Islamic banking	Descriptive statistics & ordinary least square (OLS)	This study found that after accounting for country income per capita, the lower financial inclusion for OIC countries remained significant, but it was no longer the case that the
					Islamic banking subgroup outperformed the other OIC countries.
31	Pearce, 2011	2006- 2009	Financial inclusion & economic growth	Ordinary least square (OLS)	Result of the study shows that financial inclusion has positive and significant impact on economic growth.
32	García- Herrero & Turégano, 2015	1998- 2013	Financial inclusion, credit, economic growth & income	OLS Estimate	Results of the study show that financial size does not really contribute to a more equal income distribution, measured by the GINI coefficient, while financial inclusion does so in a very significant way. This is so much the case that the role of financial inclusion can be compared with that of fiscal policy, based on the size of the estimated coefficients.
33	Kabakova & Plaksenkov, 2018	2011- 2015	Financial inclusion, sociodemographic, political factors, technological & economic factors	Descriptive statistics,	Results of the study show that there are three configurations of factors affecting financial inclusion: high socio demographic and political factors in the absence of economic development; high social, technological and economic factors in the absence of political

34	Yangdol & Sarma, 2019	2014	Financial inclusion, gender, age, agriculture, saved & borrowed	Descriptive statistics, logit regression	development; and political and economic factors in the absence of social and technological development. Results of the study show that financial inclusion has positive and significant link with saving and borrowings. While, the gender, age and agricultural productivity also
-25	E 2010	200 2016	F' 1	D. J. FMOLG	influence the financial inclusion.
35	Evans, 2018	200-2016	Financial inclusion, internet, mobile phones, macroeconomics factors	Panel FMOLS approach and Granger causality tests.	The empirical evidence shows that internet and mobile phones have significant and positive link with financial inclusion. There is also unidirectional causality from internet and mobile phones to financial inclusion. The study also shows that macroeconomic factors such as capital formation, primary enrollment, bank credit, broad money, population growth, remittances, agriculture and interest rate, as well as institutional factors such as regulatory quality are important underlying factors for financial inclusion in Africa.
36	Deku et al., 2015	2001- 2009	No financing, no loan, no credit card & no. of loan	Treatment- effects model & Propensity score matching	This study concludes that non-white households are less likely to have financing compared to white households.
			27		

					Findings also highlights that even if they obtain financing, the intensity of borrowing is lower than for white households.
37	SARMA & PAIS, 2011	2004- 2008	Financial inclusion & development	OLS Estimates	The study finds that levels of human development and financial inclusion in a country move closely with each other. Among socioeconomic and infrastructure related factors, income, inequality, literacy, urbanization and physical infrastructure for connectivity and information are important.
38	Ruiz- Porras, 2009	1990- 2003	Financial structure, financial development & banking fragility	Fixed affect regression	The main results propose that banking stability is improved in market-based financial systems, whilst financial development reduces it. However, this fragility-enhancing effect can be discovered only when the financial structure is taken into account.
39	Adomako et al., 2015	2011- 2014	Financial literacy, financial inclusion & firm growth	Descriptive statistics, correlation matrix & cordinary least square (OLS)	Findings of the study reveal that financial literacy positively enhances the access to finance-firm growth relationship.
40	Grohmann et al., 2018	2014	Financial literacy & financial inclusion	Descriptive statistics & ordinary least square (OLS)	Results of the study reveals that financial literacy holds positive impact across income levels and several subgroups within countries.

41	Chinoda & Kwenda, 2019	2004- 2016	Mobile phone, economic growth, bank competition, stability & financial inclusion	Descriptive statistics, unit root, variance decomposition, pooled OLS, Fixed effect GMM	Results show that financial inclusion responds positively and significantly to shocks in bank competition, economic growth, mobile phones and bank stability.
42	Ouma et al., 2017	2009-2014	Mobile financial services, savings & financial inclusion	Descriptive statistics & logit regression	The findings of the study show that availability and usage of mobile phone stop the financial services promotes the likelihood of saving at the household level. Not only does access to mobile financial services boost the likelihood to save, but also has a significant impact on the amounts saved, perhaps due to the frequency and convenience with which such transactions can be undertaken using a mobile phone.
43	Chen & Divanbeigi, 2019	2014- 2017	Financial regulations & financial inclusion	Descriptive statistics, correlation matrix & ordinary least square (OLS)	This study proposes a broad index of regulatory quality for financial inclusion. Results also shows negative and significant link of financial inclusion and financial regulations.
44	Léon & Zins, 2019	2002- 2015 2011- 2014	Financial regulations & financial inclusion	Descriptive statistics & probit regression	Results of the study show that there is negative association among financial regulations and financial inclusions.
45	Lai et al., 2020	2010- 2016	Financial inclusion, technology & consumption	Ordinary least square (OLS)	This study highlight that the use of technology increases the access and

					availability of
					financial services.
					This shows the positive association
					among technological
					consumption and
					financial inclusion.
46	Mehrotra &	1980-	Financial	Ordinary least	Results show that
	Yetman, 2014	2012	inclusion & monetary policy	square	optimal monetary policy implies a
	2014		monetary poncy		policy implies a positive relationship
					between the share of
					financially included
					households and the
					ratio of output volatility to inflation
					volatility. We find
					strong empirical
					support for the
					model's predictions
					using a broad cross- country dataset on
					country dataset on financial inclusion.
47	Anson et al.,	2011	Financial	Descriptive	The results propose
	2013		inclusion & post	statistics &	that post offices can
			office	Fixed effect	boost account
				regression	ownership by acting as cash merchants for
					transactional financial
					services, such as
					electronic
					government and
					remittance payments,
					and that partnerships between the post
					office and other
					financial institutions
					coincide with a higher
					bank account
					penetration.

7. Conclusions and Recommendations

Based on extensive review, this study has some main findings and conclusions. The majority of individuals in the world are still out of the financial system that's why they are unable to contribute to economic and social activities of the country that further leads inequality of income distribution. Literature has highlighted that higher economic growth can be achieved through increased financial inclusion so that every individual can get equal access to financial

services and contribute to economic activities. For achieving higher financial inclusion, government can play a vital role through effective financial policies. Proper banking policies as well as efficient banking models can also help to enhance financial inclusion. Furthermore, technological advancement and financial stability also play a significant role in enhancing financial inclusion. Researchers, financial experts, and policymakers are continuously investigating the products/elements which are necessary to measure financial inclusion. Empirical studies conclude that there is still a need to explore strong theoretical support for financial inclusion. This study suggests that how financial inclusion can play a significant role in promoting financial inclusion and how financial inclusion control systemic risk in the formal financial sector. The literature reveal that an increased level of financial inclusion is very helpful for reducing poverty and enhancing the level of economic growth which further help for equal distribution of wealth in the economy. In the future researchers need to identify (i) risk linked with financial inclusion and its effect on the poor individuals of key financial services (ii) how political conditions of countries influence the level of financial inclusion success or failure, objectives, policies, strategies, and outcomes. (iii) role of financial inclusion on macro and micro financial stability (iv) identifies the optimum level of financial inclusion (v) types of regulations needed for promoting financial inclusion (vi) analysis of financial inclusion strategies among countries and reigns.

References

- Acemoglu, D., Robinson, J. A., &Woren, D. (2012). Why nations fail: The origins of power, prosperity and poverty (Vol. 4). New York: Crown Publishers.
- Adomako, S., Danso, A., & Ofori Damoah, J. (2016). The moderating influence of financial literacy on the relationship between access to finance and firm growth in Ghana. *Venture Capital*, 18(1), 43–61.
- Aduda, J., & Kalunda, E. (2012). Financial inclusion and financial sector stability with reference to Kenya: A review of literature. *Journal of Applied Finance and Banking*, 2(6), 95.
- Agarwal, A. (2010). Financial inclusion: Challenges & opportunities. Skoch Summit, 5-6.
- Aggarwal, S., & Klapper, L. (2013). Designing government policies to expand financial inclusion: Evidence from around the world. *The Journal of Finance*, 56(3), 1029 51.
- Akhtar, S., & Pearce, D. (2010). Microfinance in the Arab World: The challenge of financial inclusion.

- Ali, A. (2015). The impact of macroeconomic instability on social progress: an empirical analysis of Pakistan. (Doctoral dissertation, National College of Business Administration & Economics Lahore).
- Ali, A. (2018). Issue of Income Inequality Under the Perceptive of Macroeconomic Instability: An Empirical Analysis of Pakistan. *Pakistan Economic and Social Review*, 56(1), 121-155.
- Ali, A. (2022). Determining Pakistan's Financial Dependency: The Role of Financial Globalization and Corruption. *Journal of Business and Economic Options*.
- Ali, A. (2022). Financial Liberalization, Institutional Quality and Economic Growth Nexus: Panel Analysis of African Countries. *Bulletin of Business and Economics*.
- Ali, A. (2022). Foreign Debt, Financial Stability, Exchange Rate Volatility and Economic Growth in South Asian Countries. *Journal of Business and Economic Options*.
- Ali, A. and Bibi, C. (2017). Determinants of Social Progress and its Scenarios under the role of Macroeconomic Instability: Empirics from Pakistan. *Pakistan Economic and Social Review* 55 (2), 505-540.
- Ali, A., & Audi, M. (2018). Macroeconomic Environment and Taxes Revenues in Pakistan: An Application of ARDL Approach. *Bulletin of Business and Economics* (BBE), 7(1), 30-39.
- Ali, A., & Rehman, H. U. (2015). Macroeconomic instability and its impact on the gross domestic product: an empirical analysis of Pakistan. *Pakistan Economic and Social Review*, 285-316.
- Ali, A., Ahmed, F., & Rahman, F. U. (2016). Impact of Government Borrowing on Financial Development (A case study of Pakistan). *Bulletin of Business and Economics* (BBE), 5(3), 135-143.
- Allen, F., Demirguc-Kunt, A., Klapper, L., & Peria, M. S. M. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of financial Intermediation*, 27, 1-30.
- Anson, J., Berthaud, A., Klapper, L. F., & Singer, D. (2013). Financial inclusion and the role of the post office. *World Bank Policy Research Working Paper*, (6630).
- Atkinson, A., & Messy, F. A. (2013). Promoting financial inclusion through financial education: OECD/INFE evidence, policies and practice.
- Audi, M., Ali, A., & Al-Masri, R. (2022). Determinants of Advancement in Information Communication Technologies and its Prospect under the role of Aggregate and Disaggregate Globalization. *Scientific Annals of Economics and Business*.

- Audi, M., Ali, A., & Roussel, Y. (2021). The Advancement in Information and Communication Technologies (ICT) and Economic Development: A Panel Analysis. *International Journal of Innovation, Creativity and Change*, 15(4), 1013-1039.
- Ayyagari, M., & Beck, T. (2015). Financial inclusion in Asia: An overview. *Asian Development Bank Economics Working Paper Series*, (449).
- Banka, H. (2014). M-PESA at the point of sale: Expanding financial inclusion and reducing demand for physical cash. *Journal of Payments Strategy & Systems*, 7(4), 359-369.
- Barman, D., Mathur, H. P., & Kalra, V. (2009). Role of microfinance interventions in financial inclusion: A comparative study of microfinance models. *Vision*, *13*(3), 51-59.
- Beck, T. (2016). Financial Inclusion–Measuring progress and progress in measuring. In *This paper was written for the Fourth IMF Statistical Forum "Lifting the Small Boats: Statistics for Inclusive Growth. Cass Business School, City, University of London, CEPR, and CESifo*
- Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. *Journal of economic growth*, 12(1), 27-49.
- Beck, T., Senbet, L., & Simbanegavi, W. (2015). Financial inclusion and innovation in Africa: An overview. *Journal of African Economies*, 24(suppl 1), i3-i11.
- Beck, T., Senbet, L., & Simbanegavi, W. (2015). Financial inclusion and innovation in Africa: An overview. *Journal of African Economies*, 24(suppl_1), i3-i11.
- Birkenmaier, J., & Fu, Q. (2018). Household financial access and use of alternative financial services in the US: Two sides of the same coin? *Social Indicators Research*, 139(3), 1169-1185.
- Bold, C., Porteous, D., &Rotman, S. (2012). Social cash transfers and financial inclusion: Evidence from four countries (Consultative Group to Assist the Poor, No. 77), pp. 1–28. Washington, DC: CGAP.
- Bongomin, G. O. C., Munene, J. C., Ntayi, J. M., & Malinga, C. A. (2018). Analyzing the relationship between institutional framework and financial inclusion in rural Uganda: a social network perspective. *International Journal of Emerging Markets*.
- Bozkurt, İ., Karakuş, R., &Yildiz, M. (2018). Spatial determinants of financial inclusion over time. *Journal of International Development*, *30*(8), 1474-1504.
- Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. *American Economic Review*, 95(3), 780-795.
- Burton, D. (2018). The US racial wealth gap and the implications for financial inclusion and wealth management policies. *Journal of Social Policy*, 47(4), 683-700.

- Chakravarty, S. R., & Pal, R. (2013). Financial inclusion in India: An axiomatic approach. *Journal of Policy modeling*, 35(5), 813-837.
- Chattopadhyay, S. K. (2011). Financial inclusion in India: A case-study of West Bengal.
- Chen, R., & Divanbeigi, R. (2019). Can Regulation Promote Financial Inclusion? *World Bank Policy Research Working Paper*, (8711).
- Chibba, M. (2009). Financial inclusion, poverty reduction and the millennium development goal. *The European Journal of Development Research*, 21(2), 213-230.
- Chikalipah, S. (2017). What determines financial inclusion in Sub-Saharan Africa? *African Journal of Economic and Management Studies*.
- Chinoda, T., &Kwenda, F. (2019). Do mobile phones, economic growth, bank competition and stability matter for financial inclusion in Africa? *Cogent Economics & Finance*.
- Cohen, M., & Nelson, C. (2011). Financial literacy: A step for clients towards financial inclusion. *Global Microcredit Summit*, 14-17.
- Collard, S. (2007). Toward financial inclusion in the UK: Progress and challenges. *Public Money and Management*, 27(1), 13-20.
- Comparato, G. (2015). The rationales of financial inclusion in the changing European private law. *European Review of Contract Law*, 11(1), 22-45.
- Cull, R., Demirgüç-Kunt, A., & Lyman, T. (2012). Financial inclusion and stability: what does research shows?
- De Matteis, L. (2015). Financial inclusion. Policies and instruments for migrants in Italy. *Savings and Development*, 39-69.
- Deku, S. Y., Kara, A., & Molyneux, P. (2016). Access to consumer credit in the UK. *The European Journal of Finance*, 22(10), 941-964.
- Demirgüç-Kunt, A., & Singer, D. (2017). Financial inclusion and inclusive growth: A review of recent empirical evidence. *World Bank Policy Research Working Paper*, (8040).
- Demirgüç-Kunt, A., Kane, E. J., & Laeven, L. (2014). *Deposit insurance database* (No. w20278). National Bureau of Economic Research.
- Dias, D., & McKee, K. (2010). Protecting branchless banking consumers: Policy objectives and regulatory options. *Focus Note*, *64*(64), 20.
- Diniz, E., Birochi, R., & Pozzebon, M. (2012). Triggers and barriers to financial inclusion: The use of ICT-based branchless banking in an Amazon County. *Electronic Commerce Research and Applications*, 11(5), 484-494.
- Donovan, K. (2012). Mobile money for financial inclusion. *Information and Communications* for development, 61(1), 61-73.

- Emara, N., & El Said, A. (2021). Financial inclusion and economic growth: The role of governance in selected MENA countries. *International Review of Economics & Finance*, 75, 34 54.
- Evans, O. (2018). Connecting the poor: the internet, mobile phones and financial inclusion in Africa. *Digital Policy, Regulation and Governance*.
- Fernández-Olit, B., Martín, J. M. M., & González, E. P. (2019). Systematized literature review on financial inclusion and exclusion in developed countries. *International Journal of Bank Marketing*.
- Fonté, E. F. (2012). Mobile payments in the United States: How disintermediation may affect delivery of payment functions, financial inclusion and anti-money laundering issues. *Wash. JL Tech. & Arts*, 8, 419.
- Fungáčová, Z., & Weill, L. (2015). Understanding financial inclusion in China. *China Economic Review*, 34, 196-206.
- Gabor, D., & Brooks, S. (2017). The digital revolution in financial inclusion: international development in the fintech era. *New political economy*, 22(4), 423-436.
- Ghosh, J. (2013). Microfinance and the challenge of financial inclusion for development. *Cambridge journal of economics*, *37*(6), 1203-1219.
- Godinho, V., & Singh, S. (2013, September). Technology enabled financial inclusion and evidence-based policy for the underbanked: A study of remote Indigenous Australia. In *CPRsouth8/CPRafrica2013 conference*.
- Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross country evidence. *World Development*, 111, 84-96.
- Halwe V. (2010), A study to understand the saving pattern and credit needs of the tribal families of Maharashtra and Gujarat State of India, BAIF Development Research Foundation.
- Hannig, A., & Jansen, S. (2010). Financial inclusion and financial stability: Current policy issues.
- Honohan, P. (2004). *Financial sector policy and the poor: Selected findings and issues* (No. 43). World Bank Publications.
- Horska, E., Szafranska, M., & Matysik-Pejas, R. (2013). Knowledge and financial skills as the factors determining the financial exclusion process of rural dwellers in Poland. Agricultural Economics -ZemedelskaEkonomika, 59(1), 29-37
- Hudon, M. (2009). Should access to credit be a right? Journal of business ethics, 84(1), 17-28.

- Ibor, B. I., Offiong, A. I., &Mendie, E. S. (2017). Financial inclusion and performance of micro, small and medium scale enterprises in Nigeria. *International Journal of Research*, 5(3), 104-122.
- Infelise, F. (2014). Supporting Access to Finance by SMEs: Mapping the initiatives in five EU countries.
- Islam, K. J., & Simpson, W. (2018). Payday lending and microcredit: two faces of the same problem? *Journal of International Development*, 30(4), 584-614.
- Johnson, S., & Arnold, S. (2012). Inclusive financial markets: is transformation under way in Kenya? *Development Policy Review*, *30*(6), 719-748.
- Kabakova, O., & Plaksenkov, E. (2018). Analysis of factors affecting financial inclusion: Ecosystem view. *Journal of business Research*, 89, 198-205.
- Kapadia, S. (2019). A perspective on financial literacy and inclusion in India.
- Kear, M. (2013). Governing homo subprimicus: Beyond financial citizenship, exclusion, and rights. *Antipode*, 45(4), 926-946.
- Kim, D. W., Yu, J. S., & Hassan, M. K. (2018). Financial inclusion and economic growth in OIC countries. *Research in International Business and Finance*, 43, 1-14.
- Kimmitt, J., & Munoz, P. (2017). Entrepreneurship and financial inclusion through the lens of instrumental freedoms. *International Small Business Journal*, *35*(7), 803-828.
- King, R. G., & Levine, R. (1993). Finance and growth: Schumpeter might be right. *The quarterly journal of economics*, 108(3), 717-737.
- Koku, P. S., & Jagpal, S. (2015). Do payday loans help the working poor? *International Journal of Bank Marketing*.
- Koomson, I., & Danquah, M. (2021). Financial inclusion and energy poverty: Empirical evidence from Ghana. *Energy economics*, *94*, 105085.
- Kosse, A., & Vermeulen, R. (2014). Migrants' choice of remittance channel: do general payment habits play a role? *World Development*, 62, 213-227.
- Kumar, N. (2013). Financial inclusion and its determinants: evidence from India. *Journal of Financial Economic Policy*.
- Lai, J. T., Yan, I. K., Yi, X., & Zhang, H. (2020). Digital financial inclusion and consumption smoothing in China. *China & World Economy*, 28(1), 64-93.
- Lentner, C., Vasa, L., & Hegedus, S. (2020). The Assessment of Financial Risks of Municipally Owned Public Utility Companies in Hungary Between 2009 and 2018. *Montenegrin Journal of Economics*, 16(4), 29-41.

- Léon, F., & Zins, A. (2020). Regional foreign banks and financial inclusion: Evidence from Africa. *Economic Modelling*, 84, 102-116.
- Levine, R., & Zervos, S. (1996). Stock market development and long-run growth. *The world bank economic review*, 10(2), 323-339.
- Marron, D. (2013). Governing poverty in a neoliberal age: new labor and the case of financial exclusion. *New Political Economy*, *18*(6), 785-810.
- Marshall, J. N. (2004). Financial institutions in disadvantaged areas: a comparative analysis of policies encouraging financial inclusion in Britain and the United States. *Environment and Planning A*, 36(2), 241-261.
- Mckinnon RI (1973) Money and Capital in Economic Development. *Brookings Institute,* Washington Shaw.
- Mehrotra, A. N., & Yetman, J. (2014). Financial inclusion and optimal monetary policy.
- Mhlanga, D. (2021). Financial inclusion in emerging economies: The application of machine learning and artificial intelligence in credit risk assessment. *International Journal of Financial Studies*, *9*(3), 39.
- Mitchell, K., & Scott, R. H. (2019). Public revenue, financial inclusion and value-added tax in Argentina. In *Pesos or plastic?* (pp. 33-58). Palgrave Pivot, Cham.
- Mitton, L. (2008). Financial inclusion in the UK: Review of policy and practice. Joseph Rowntree Foundation.
- Mohan, R. (2006). Economic growth, financial deepening and financial inclusion. *Reserve Bank of India Bulletin*, 1305.
- Naceur, S. B., Barajas, A., & Massara, A. (2017). Can Islamic banking increase financial inclusion? In *Handbook of empirical research on Islam and economic life*. Edward Elgar Publishing.
- Nanziri, E. L. (2016). Financial inclusion and welfare in South Africa: Is there a gender gap? *Journal of African Development*, 18(2), 109-134.
- Ndebbio, J. E. U. (2004). Financial deepening, economic growth and development: Evidence from selected sub-Saharan African Countries.
- Neaime, S., &Gaysset, I. (2018). Financial inclusion and stability in MENA: Evidence from poverty and inequality. *Finance Research Letters*, 24, 230-237.
- Nega, F., & Hussein, E. (2016). Small and medium enterprise access to finance in Ethiopia: Synthesis of demand and supply.

- Oshora, B., Desalegn, G., Gorgenyi-Hegyes, E., Fekete-Farkas, M., & Zeman, Z. (2021). Determinants of Financial Inclusion in Small and Medium Enterprises: Evidence from Ethiopia. *Journal of Risk and Financial Management*, 14(7), 286.
- Óskarsdóttir, M., Bravo, C., Sarraute, C., Baesens, B., & Vanthienen, J. (2020). Credit scoring for good: Enhancing financial inclusion with smartphone-based microlending. *arXiv* preprint arXiv:2001.10994.
- Ouma, S. A., Odongo, T. M., & Were, M. (2017). Mobile financial services and financial inclusion: Is it a boon for savings mobilization? *Review of development finance*, 7(1), 29-35.
- Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, *18*(4), 329-340.
- Ozili, P. K. (2019). Blockchain finance: Questions regulators ask. In *Disruptive innovation in business and finance in the digital world*. Emerald Publishing Limited.
- Park, C. Y., & Rogelio Jr, V. Mercado Jr. 2015. "Financial Inclusion, Poverty, and Income Inequality in Developing Asia." (No. 426). ADB Economics Working Paper Series.
- Pati, A. P. (2009). Enhancing financial inclusion: The catalytic role of self-help groups. *The Management Accountant, May*.
- Pearce, D. (2011). Financial inclusion in the Middle East and North Africa: Analysis and roadmap recommendations. *World Bank policy research working paper*, (5610).
- Polillo, S. (2011). Money, moral authority, and the politics of creditworthiness. *American Sociological Review*, 76(3), 437-464.
- Pollin, J. P., & Riva, A. (2002). Financial inclusion and the role of postal systems. In *Modernization and privatization of postal systems in Europe* (pp. 213-252). Springer, Berlin, Heidelberg.
- Popescu, A. D. (2019). Empowering Financial Inclusion through FinTech. *Social Sciences and Education Research Review*, 6(2), 198-215.
- Ramakrishnan, D. R. (2012, June). Financial literacy and financial inclusion. In *13th Thinkers* and writers Forum.
- Ruiz-Porras, A. (2009). Financial structure, financial development and banking fragility: International evidence. *Análisis Económico*, 24(56), 147-173.
- Salignac, F., Marjolin, A., Reeve, R., & Muir, K. (2019). Conceptualizing and measuring financial resilience: A multidimensional framework. *Social Indicators Research*, *145*(1), 17-38.

- Salignac, F., Muir, K., & Wong, J. (2016). Are you really financially excluded if you choose not to be included? Insights from social exclusion, resilience and ecological systems. *Journal of Social Policy*, 45(2), 269-286.
- Sarma, M. P. Jesim (2011). "Financial Inclusion and Development". *Journal of International Development*, 23(5), 613-628.
- Serrao, M. V., Sequeira, A. H., & Hans, B. (2012). Designing a methodology to investigate accessibility and impact of financial inclusion. *Household finance e-journal-CMBO*.
- Sharma, D. (2016). Nexus between financial inclusion and economic growth: Evidence from the emerging Indian economy. *Journal of financial economic policy*.
- Shetty, S., & Hans, V. (2018). Women empowerment in India and financial inclusion barriers. *International Journal of Management Sociology and Humanities*, 9(3).
- Simpson, W., & Buckland, J. (2016). Dynamics of the location of financial institutions: Who is serving the inner city? *Economic Development Quarterly*, *30*(4), 358-370.
- Sinclair, S. (2013). Financial inclusion and social financialization: Britain in a European context. *International Journal of Sociology and Social Policy*.
- Triki, T., & Faye, I. (2013). Financial inclusion in Africa. African Development Bank.
- Turegano, D. M., & Herrero, A. G. (2018). Financial inclusion, rather than size, is the key to tackling income inequality. *The Singapore Economic Review*, 63(01), 167-184.
- Usman, M., Makhdum, M. S. A., & Kousar, R. (2021). Does financial inclusion, renewable and non-renewable energy utilization accelerate ecological footprints and economic growth? Fresh evidence from 15 highest emitting countries. *Sustainable cities and society*, 65, 102590.
- Yangdol, R., & Sarma, M. (2019). Demand-side factors for financial inclusion: A cross-country empirical analysis. *International Studies*, *56*(2-3), 163-185.