



OULUN YLIOPISTO  
UNIVERSITY of OULU

OULU BUSINESS SCHOOL

**Srabonty Mazumder**

**THE IMPACT OF FINANCIAL INCLUSION ON ECONOMIC GROWTH: A  
LITERATURE REVIEW**

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Author Srabonty Mazumder		Supervisor Marko Korhonen	
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<p>Abstract</p> <p>Financial inclusion is a process of ensuring the ease access of accessible, available and affordable formal financial service for all adult people of an economy. It is one of the most important prerequisites to economic development. The importance of financial inclusion is now recognized by international as well as national bodies. This thesis is concentrated on explaining how it impacts on economic growth base of previous empirical research work. This thesis work reviews a total of 12 studies that are done by different researchers and the study aims to review that papers on how financial inclusion serves as a mean of inclusive growth. The first part of the thesis is containing the theoretical aspect of financial inclusion, the importance of it, barriers, relationship with growth and how to measure it. The next part gives an overview of financial inclusion. The final part, research findings is the main part of this thesis. In this part, within three-section, numerous studies have been reviewed. 1st section has reviewed the positive impact of four-panel and cross-sectional's studies. 2nd section also has reviewed the positive impact of different time series and individual country level literature. The last have section reviews negative results between financial inclusion and economic growth.</p> <p>Most of the researchers recommended that policy play a vital role to increase the network branches, dissemination of financial services and eliminate all barriers to access financial service to ensure economically sustainable derived from financial inclusion. Other hands, lack of transparency, frail stock market, weak financial system, lack of transparency, and lack of financial system are responsible for negative impact on growth.</p> <p>All of the studies found a relationship between financial inclusion and economic growth. Some studies found positive and some got a negative result. So, it is could be concluded that financial inclusion has an impact on economic growth.</p>			
<p>Keywords</p> <p>Financial Inclusion, Economic Growth, Access of banking, ATM, policy implement.</p>			

## Foreword

This thesis is the last academic work of mine in the University of Oulu. It has been a very difficult time for me while working on this thesis and now I am happy that I have completed it. First, I start my thesis work with different topic than three or four months later I have changed my topic. The topic I choose was something that seemed interesting to me and I am happy to work on it. I had to read a lot of academic research papers to write my thesis work that was really something very new for my academic life.

First of all, I would like to thank my supervisor Marko Korhonen for guiding me and giving me the confidence when I needed it. Then, I would like to thank my family my mom, dad and sisters to support me always. I would like to thanks my friend Md.Zahidul Islam for being there when I was stressed. I also like to thank my friends Eshan Sumaiya, Nawrin Urmi, Sharmin Farah, Noushed Ahmed and Zahirul Islam who always care and encourage me to complete my thesis.

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## 1. INTRODUCTION:

### 1.1 Background of study

Financial inclusion (FI) is defined as access to the full range of financial services at an affordable rate for adults, with minimum risk through a competitive financial marketplace. The service will ensure the responsibility and safety of the consumer as well as the sustainability of the economy (Demirgüç-Kunt et al, 2017). Hence, financial inclusion considers the involvement of a vulnerable group of the economy such as rural people, low-income group, female participation and take to account their access extend financial service such as saving and payment account, credit insurance, pension, etc (Iqba & Sami, 2017)

In the recent period, financial inclusion is an important topic that caught attention to the researchers, policymakers and different financial stakeholders. It has been seen found by researchers that there is a relationship between financial exclusion and economic growth and poverty. The inclusive financial system is very important because of its extensively recognized in the policy circle. Generally, an inclusive financial system deal with accessible and available financial service like that bank deposit, credit, and insurance. A different way, a high level of financial inclusivity in a financial society means that a situation where everyone participates in the economy is using a recognized financial system that providing them the benefit of financial service and finally make their capital stability (Kim et al, 2018). To achieve a financial development inclusive financial system is a very relevant dimension that is also important for achieving the SDGs goal (Sustainable Development Goals).<sup>1</sup>

The last two-decade FI is considered as an agenda of developing countries, the financial exclusion was so pervasive that the inevitable focus was essential for

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<sup>1</sup> Sustainable Development Goals (SDGs) are a collection of 17 global goals set by the United Nations General Assembly in 2015 for the year 2030. The SDGs are the part of resolution 70/1 of the United Nations General Assembly, the 2030 agenda. Each of goals have a list of targets which are measured with indicators.

improving access to financial service. According to the Global Findex database<sup>2</sup>, 69% adult population of the world has an account. The percentage is varying significantly from developed countries to developing countries. In high income, 94% of adults have accounts other hands 63% of adults have an account in developing countries. In that perspective, financial inclusion is a remarkable and discussable topic for developing countries' perspective. Globally 1.7 billion adults become unbanked, though most of the adult people of developed countries have financial access so all of the unbanked adults live in developing countries. According to Findex 2017 report, half of this unbanked adult live in just seven developing economies: Bangladesh, China, India, Indonesia, Mexico, Nigeria, and Pakistan. (Demirgüç-Kunt et al, 2018)

In the present time, financial inclusion affects a person's economic opportunities such as individual skill, initiative, social status, and political connection. As well as the financial system influence an individual to start a business and pay for education. Otherwise, it influences a person's ability to realize their economic goal that finally reduces the rich and poor gap in the economy. For example, most of the developed countries consist of inclusive finance where the rich and poor gap is not too much comparing to developing countries.

This thesis presents a literature review that identify the effect of financial inclusion and economic growth in developing countries' perspectives. Because it is found that affecting the distribution of capital, finance could change the rate of economic growth and demand for labor both that finally hit on poverty and income distribution (Demirgüç-Kunt & Levine, 2009).

Simply, Financial inclusion refers to the ability of individuals to access financial products and services to meet their needs including saving, transacting, making and receiving payments, receiving credit, and insurance. The products and services have to be affordable and useful to the target population so that the desired goals can be met. Most of the people have easy, affordable and accessible financial service that's why adults in developed countries get inclusive finance benefit.

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<sup>2</sup> Global Findex database is the world's most comprehensive data set on how adults save, borrow, make payments and manage risk It is launched with funding from the bill & Melinda Gates Foundation, the database has been published every three years since 2011.

Furthermore, financially underserved population largely consists of people in the developing countries who use the informal economy. This lack of access to financial service has a significant effect on their livelihood and economy.

## **1.2 Objective of the study:**

Financial inclusion is an important step towards inclusive growth. It helps in the overall economic development of the deprived population. Effective financial inclusion is essential for enhancing poor and disadvantaged people's financial products and services. Inclusive finance is desirable for all economies.

World Bank already agrees that financial inclusion is a key enabler in reducing poverty and boosting prosperity, and it is the noticeable matter that more than half of the world adult population does not have access to any basic financial service. Remarkably most of these unbanked adults are in Asian and African countries.

According to the Global Findex, Database 2017 worldwide 1.7 million people do not have access to any financial service. And this huge population belongs to developing and under-developing countries. Considering that fact, inclusive finance is the most debatable topic in developing countries context.

There are many studies based on financial inclusion and economic growth of developing countries. Consistent with that previous research work my thesis work gives a literature review of previous research work in this field.

The main objective of the study is to review various papers on how financial inclusion serves as a mean of inclusive growth. So, the primary purpose of this literature review is to update a previous literature review on the same subject on developing countries perspective.

### **1.3 Structure of the thesis**

There are total six chapters in my thesis work. 1<sup>st</sup> Chapter gives background objectives and structure of my thesis work. 2<sup>nd</sup> chapter covers the research methodology part. Next chapter (chapter 3) describes theoretical definitions and synopsis of financial inclusion, the concept of economic growth, the relationship between economic-financial Inclusion and economic growth, the importance of financial inclusion, barriers of achieving inclusive finance and criteria of measuring financial inclusion. In the next chapter, (chapter 4) there would be a discussion of the overview of worldwide financial inclusion Index. Chapter 5 covers research findings part. This chapter consists of three sections. The first and second section gives the positive impact of financial inclusion and economic growth and the last section consists of a literature review of the negative effect of financial inclusion and economic growth. The last chapter (Chapter 6) covers the conclusion and recommendation of reviewed research findings.



## **2. RESEARCH METHODOLOGY:**

This thesis work provides a outline of a review that summarized different studies on the financial inclusion impact of economic growth. It is a literature review that would give a review impact of financial inclusion on economic growth considering previous research works.

Generally, a literature review is a description of the literature relevant to a field. It provides an overview of what research work has been said, who the key writers are, what are the principal theories and hypotheses, what questions are being asked and what methods and methodologies are appropriate and useful. Though it is not itself primary research relatively it reports on other findings. (Emerald Group Publishing, n.d.).

The literature review is different from an academic research paper. The objective of an academic research paper is to develop a new argument and where a literature review is considered as a section of that. On the other hand, the main objective of the literature review is to summarize a synthesize the argument and idea of others without adding a new contribution (Ramdhani el at, 2016).

The literature review can be a different type such as narrative or traditional literature review, scoping review, systematic quantitative literature review, cochrane review, and campbell collaboration, etc. Author in this thesis work would follow traditional or narrative literature review. The narrative review gives the author and readers a comprehensive review of the topic and highlights the significant areas of research. As well it can help to identify the gap in the research and help to refine and define the research question. In general, the narrative review differs from a systematic approach is in the notation of the search method criteria of selection and it can leave a narrative review open to the suggestion of bias. (Griffith University website)

Financial inclusion is a current, datable and discussable topic in developing countries. That's why many panel and cross countries research work as well time-series research has been done in this field. In a literature review choosing a review, the topic is very important and having sufficient literature on this field also important when the review

is an academic assignment. Financial inclusion is a current topic, it is the political agenda of many developing countries and sufficient research work also has been found in this field. Considering all this fact, this topic is appropriate for writing a literature review.

This literature review at first briefly reviews four-panel and cross-sectional studies. Below a synthesis matrixed has been prepared to analyze and synthesize the key sources of this research. It also gives an overlook of the panel and cross-sectional sources of review in a glance.

<b>Name of the Article</b>	<b>Author &amp; Date</b>	<b>Purpose</b>	<b>Method</b>	<b>Sample</b>	<b>Findings</b>
<b>ICT, Financial Inclusion, and Growth: Evidence from African Countries (2011)</b>	Andrianaivo and Kpodar	Role of ICT development, especially mobile phone penetration, can play in promoting financial inclusion and economic growth.	Generalized Method of Moment (GMM) estimator.	44 African countries between 1988 to 2007	ICT growth positively impact on financial inclusion and economic growth
<b>Role of financial inclusion in financial development: International evidence (2016)</b>	Balach Rasheed, Siong-Hook Law, Lee Chin, Muzafar Shah Habibullah	Examined whether financial inclusion could help to promote financial development	Generalized Method of Moment (GMM) estimator.	97 countries during 2004-2012	Result found positive and statistically significant result between banking sector development and real GDP per capita.
<b>Financial Inclusion and economic growth of OIC countries (2018)</b>	Dai-Won Kim Jung- Suk Yu M. Kabir Hassan	Examine the relationship between financial inclusion and economic growth in Organization of Islamic Cooperation	Dynamic panel estimation and use panel VAR, Panel IRE and panel Granger causality test.	55 OIC countries from 1990-2013-time period	Financial inclusion has positive effect on economic growth.

		(OIC) countries.			
<b>Financial Development and economic growth: Evidence from a panel of 16 African and non-African low-income countries (2018)</b>	Prasad Bist	Aim to investigate the long run relationship between financial development and economic growth.	Fully Modified and dynamic OLS technique	16 African and non-African countries from 1995-2014	Result found positive impact of financial development on economic growth in most of the countries.

After panel or cross countries research works individual country base research work has been reviewed. Another synthesis matrixed have been arranged below:

Name of the Article	Author & Date	Purpose	Method	Sample	Findings
Financial Inclusion and Economic Growth in Nigeria (2015)	Abiola A. Babajide, Folasade B. Adegboye, Alexander E Omankhanlen	To investigate the impact of FI on economic growth in Nigeria.	Ordinary Least Square (OLS) regression model	Period 1981 to 2012	Positive impact on per capital worker and financial sector development.
Role of banks in financial inclusion in India. (2016)	Baber Alam Iqbal & Shaista Sami	To Examine the impact of financial inclusion on economic growth of India	Multiple Regression analysis	2007 to 2014	Positive impact of financial inclusion on economic growth.
Financial Inclusion, Governance And Economic Progress In Nigeria: What Happens To The Welfare Of The Poor? (2017)	Joseph A. Omojolaibi	Enquire the impact of financial inclusion and governance characteristics on economic progress via three major channels: Investment in infrastructure, per capita	Single equation linear Generalised Method of Moment (GMM)	1980 to 2014	Found commercial bank deposit increase per capita GDP

		GDP and income inequality.			
Effects Of Financial Inclusion On The Economic Growth Of Nigeria. (2015)	Onaolapo A R	To examine effect of financial inclusion on economic growth of Nigeria	Ordinary Least Square (OLS) method	1982 to 2012	Significant relationship between financial inclusion and economic growth.
Does financial inclusion spur economic growth in India? 2017	Sanjaya Kumar Lenka and Ruchi Sharma	Examine the effect of financial inclusion on economic growth in India	Autoregressive Distributed Lag (ARDL) and Error Correction Model (ECM)	1980 to 2014	Found a positive impact of financial inclusion on economic growth both in the long run and short run.

Despite of positive effect some empirical research work also found negative relationship between financial inclusion and economic growth. Three of these types of studies also have been reviewed in this literature work. The last synthesis matrixed have been arranged base on negative research work on this topic;

<b>Name of the Article</b>	<b>Author &amp; Date</b>	<b>Purpose</b>	<b>Method</b>	<b>Sample</b>	<b>Findings</b>
<b>The Finance and Growth Nexus Re-examined: Do All Countries Benefit Equally?(2012)</b>	Adolfo Barajas, Ralph Chami and Seyed Reza Yousefi	Investigate whether financial inclusion impact differs across regions and types of economy	Generalized Method of Moment (GMM) estimator.	More than 130 countries from the period 1975 to 2005	Not always get positive Impact between financial inclusion and economic growth
<b>Financial Development and Economic growth of China (2015)</b>	Yan Wang , Xiaoyu Li , Hussein A. Abdou, Collins G. Ntim	To examine the relationship between financial development and	Ordinary Least Square (OLS) multiple regressions	period 1978 to 2013	Financial development has a negative effect on economic growth in general

		economic growth of China			
<b>Stock Markets, Banks, and Economic Growth : Empirical evidence from the MENA Region (2005)</b>	Samy Ben Naceur and Samir Ghazouani	To examine relationship between financial development and economic growth specially impact of banks on growth and financial markets on growth.	Generalized Method of Moment (GMM) estimator.	unbalanced panel data of ten MENA region countries.	Result found overall financial development is unimportant or even harmful for economic growth in the MENA region.

Finally, above these research works are based on those studies that are trying to find out a relationship or impact of financial inclusion on the economic growth of developing countries. My thesis work will try to provide a traditional review on this subject.

### 3. DEFINITION AND SYNOPSIS ON FINANCIAL INCLUSION

#### 3.1 Financial Inclusion:

An inclusive financial (alternatively financial exclusion) environment is desirable not only in developing and under-developing countries but also in developed countries. Almost 1.7 billion adults that are around 69% of the population of developing countries have no access to formal financial service. Simply financial inclusion is making financial access to all adult people at an affordable cost. It tries to address and offer a solution to constraints that exclude people by participating in the financial sector. In other words, it is called inclusive financing.

Most of the developing countries are suffering from financial exclusion. As financial exclusion earliest definition was given by Leyshon & Thrift (1995) in their article where they define financial exclusion as, refining to those processes that serve to prevent certain social groups and individuals from gaining access to the formal financial system. Later Sinclair (2013) said, financial exclusion means the ability to access necessary financial service in the appropriate form. Exclusion can come about because of problems with access, conditions, and prices, marketing or self - exclusion in response to negative experiences and perceptions.

The Banking Association South Africa has given a working definition of FI. They said, *“access and usage of a broad range of affordable, quality financial services and products, in a manner convenient to the financially excluded, unbanked and under-banked; in an appropriate but simple and dignified manner with the requisite consideration to client protection. Accessibility should be accompanied by usage which should be supported through the financial education of clients.”* (<https://www.banking.org.za/financial-inclusion/>)

Thorat (2006) defines financial inclusion is the provision of affordable financial service, namely, access to payments and remittance facilities, saving, loans, and insurance services by the formal financial system to those who tend to be excluded. Adding financial counseling and a variety of bank account suiting the specific needs of the consumer, Sahrawat (2010) also agrees to Thorat's scope of financial inclusion.

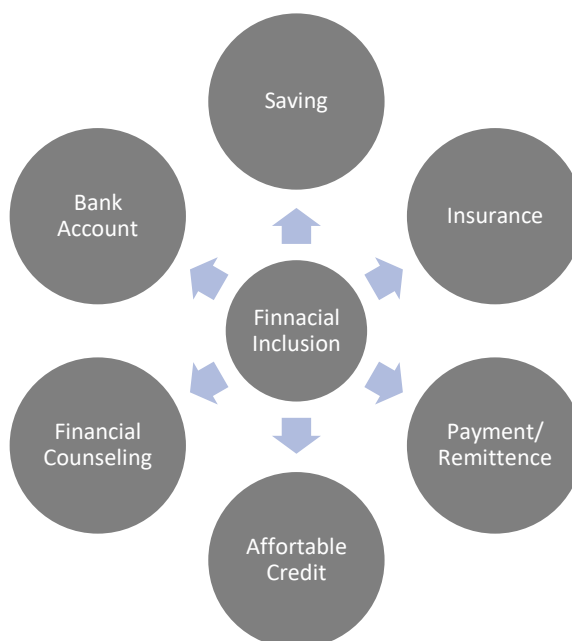


Figure 1: Scope of Financial Inclusion

Source: Sahrawat, (2010)

According to different researchers and economists, definition financial inclusion is the process of ensuring access to financial services and timely and adequate credit where needed by the vulnerable group such as weaker sections and low-income groups at an affordable cost (Rangarajan, 2008). More specific Kochhar (2010) defines financial inclusion as, the process of ensuring access to financial service or making available timely and adequate credit when need by vulnerable groups, such as weaker sections and low-income group, at an affordable cost, it must also be appropriate, fair and transparent. Enabling people to get credit from small institutions and moneylenders and the like is not financial inclusion. Access must be through mainstream institutional players and only then such access will be fair, transparent and cost-effective.

On the other hand, Cull (2014) defines Financial Inclusion in a slightly different way. According to him, “*FI means that all working-age adults have effective access to credit, saving, payment, and insurance from formal service providers. Effective access involves convenient and responsible service delivery, at a cost affordable to the customer and sustainable for the provider with the result that financially excluded customers use formal financial services rather than an existing informal option.*”

Overall most of the definition emphasis the access to financial service in an affordable and accessible way as well as the complication of using financial service. Considering the existing literature and research work Sarma and Pais (2011) found a relationship between financial inclusion and economic development in several countries where they found a positive correlation.

### **3.2 Concept of GDP growth**

In generally economic growth is defined as an increase of total output (goods and services) produced by a country in a certain period. Economic growth is a rise in the production capacity of an economy to produce goods and services, compared from one period to another. Economic growth happened whenever people take resources and rearrange them in a way that more valuable. The real and nominal term in these two-way economic growths can be measure.

Economic growth can be positive or negative. Positive economic growth creates more profit for businesses. That raises the stock price. As a result, it gives companies the capital to invest more and hire more employees. When more jobs are created, people's income rise. So, the consumer's purchasing power also increases. Purchases drive higher economic growth. For that reason, all countries want positive economic growth that indicates the economy is flourishing. In Contrast, negative growth indicates that the economy is shrinking. Negative economic growth is associated with economic recession or economic depression.

Usually, aggregate economic growth is measured in terms of gross national product (GNP) or gross domestic product (GDP). World bank uses Gross Domestic Product instead of GDP to measure the growth of an economy. GDP is measured in most of the country quarterly. GDP is considered the best way of measuring economic growth. It takes into account the country's entire economic output. takes Economic growth measures the growth in monetary terms and looks at no other aspects of development (Ayres & Warr, 2006).



Financial systems are important for productivity, growth, and development that is suggested by King & Levine (1993) and Levine et al (2000). Well-functioning institutions and markets, help to flourish technological innovation, capital accumulation and therefore economic growth. They also said that well-functioning financial markets lower the costs of transaction increasing the amount of savings put into the investment. They also allow for capital to be allocated to projects that yield the highest returns and therefore enhance GDP growth rates.

### **3.3 The relationship between financial inclusion and GDP growth**

According to Global Findex, financial inclusion is important for GDP growth and reducing inequity and poverty in any country. Financial inclusion has a transformative power that should not be underestimated because improving access to finance to poor households and micro-enterprises which can unlock income-earning opportunities and self-reliance for many hence positively impacts the economic development of a nation. Many researchers already found that financial exclusion leads to loss of opportunities to grow, hinder country growth and increase poverty level.

According to Pollin & Riva (2002, p 213) “financial exclusion of is one face of problem and access to financial service is increasingly becoming an important step in the path toward inclusion into the labor market and social life in general. Furthermore, financial inclusion can contribute to substantial cost savings for the community. Finally, it can bring new activities and customers to the financial system.”

Beck et al (2008) said that a well-developed financial system is desirable because it reduces information and transaction cost, influences saving rates, help to take investment decision and technological innovation and in long run increase growth rate.

Kampson et al (2000) have shown a clear link of financial exclusion with poverty, disadvantages, and deprivation. They though financial exclusion is the broader concept which is a shorthand term for what can happen when people or areas suffer from a

combination of linked problems such as unemployment, poor skill, low incomes, poor housing, high crime environments, bad health, poverty and family breakdown.

They also said that social exclusion brings social classes and divisions. This economic situation included fearful and distrustful of the excluded and vice versa terminating to divided societies that are unhealthy for the economy. In such cases of economy, the rich areas and people tend to get richer and poor areas and people poorer (Kampton et al, 2009).

The AT&SG Report (2010) have made links between financial inclusion to economic growth through inclusive financial access as represented below:

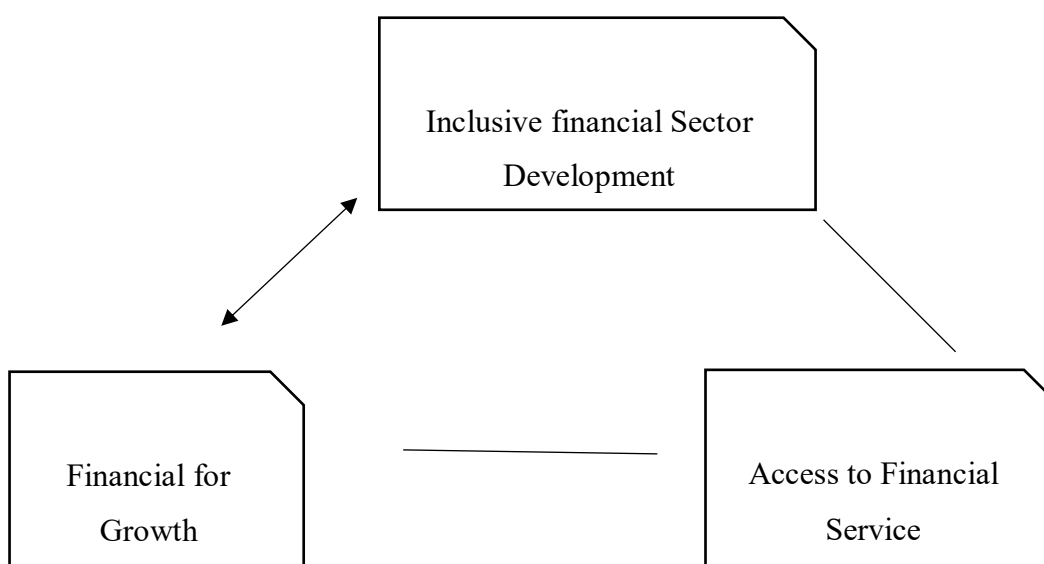


Figure 2: Linkage between Financial Inclusion, Finance for Economic Growth and Financial Sector Development

*(Sources: Source: Innovative Financial Inclusion; Expert Group AT&SG Report, G.20; 25 May, 2010)*

As well, Onaolapo (2015) found a noticeable and constant relationship between an inclusive financial system, poverty alleviation, bank intermediation, and economic growth. The framework has been given below:

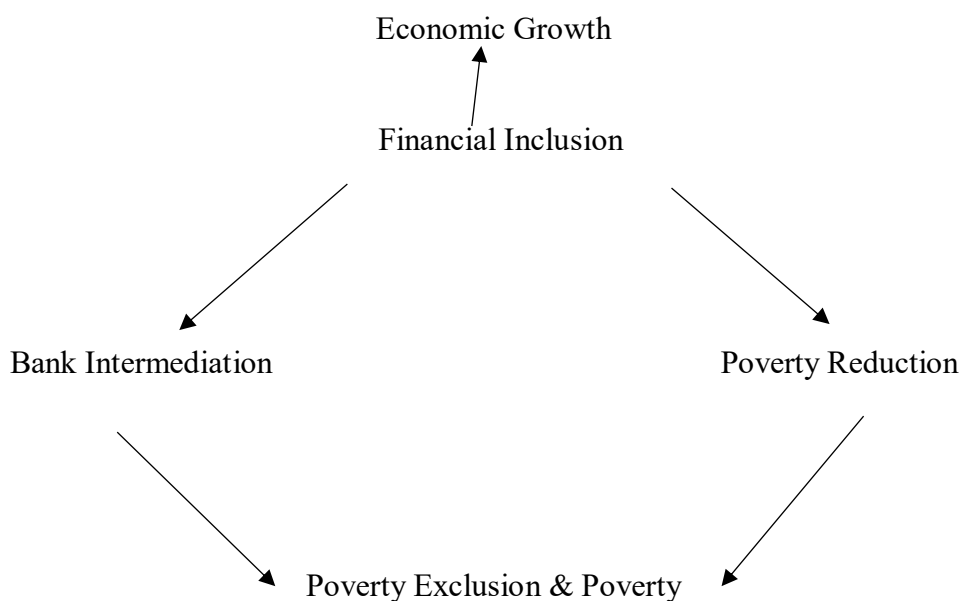


Figure 3: A conceptualized Framework of Relationship between Financial Inclusion & Economic Growth  
Source: Onaolapo (2015)

After above discussion it can be summarised that financial inclusion is an instrument of connecting the gap between the included and excluded and the rich and the poor. Financial inclusion could not be allocated within isolation but in line with other socioeconomic, cultural and geographic aspects. Despite this information on the effects of financial exclusion, financial inclusion has not been fully comprehended as proved by the size of the financially excluded, that is, those lacking access to formal financial services

### **3.4 Why financial inclusion is important and how it effect on development?**

All over the world, many adults are away from financial service and the concept of financial inclusion has developed as the most important factor of development. Therefore, it featured amongst the United Nation's Sustainable Development Goals, then, various economic policies have been established to encourage broader participation of the formal financial sector. From that perspective, the World Bank and the International Monetary Fund (IMF)<sup>3</sup> have started to provide studies, statistics, and surveys that provide different countries' activities to increase participation of the formal financial sector.

Along with in 2008 Centre of Financial Inclusion was established aiming to include three billion people under the financial sector to improve their life who are currently underserved by the financial sector. (Center for Financial Inclusion (CFI), ei pvm).

SDGs are an important agent all over the world. Previous research works found that access to financial service helps to achieve the SDGs goal. For instance, all over the world, around 700 billion population live on or below \$1.9 a day and the absence of financial service it is difficult to control their economic life. (Demirguc-Kunt, et al, 2018)

According to, Dupas & Robinson (2013) financial service saving has an impact on poverty directly indirectly both like that financial instrument saving increases countries' net saving as well as increases national investment and consumption. Saving is an important tool that enhances families' capacity to absorb financial shocks, smooth consumption, and accumulated asset and invest human capacities such as health and education.

Financial inclusion helps to reduce the gender gap in developing society. Researcher Prina, (2015) study base on the female household of Nepal found that access to the savings accounts increases monetary assets and total assets around 16%. Furthermore,

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<sup>3</sup> The International Monetary Fund (IMF) is an organization of 189 countries, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth and reduce poverty around the world.

entree to saving account remarkably effect on household investment in health like medicine expenditure and traditional remedies.

Financial inclusion through account ownership promotes gender equity and women empower (SGD NO 5). The study conducted by Dupas & Robinson (2013) revealed that using savings account female market vendors in Kenya increased their daily expenditure 37% more than women who did not have an account.

From 1977-1990 India started to increase its banking branches less developing areas to increase and equalize the states. Burgess & Pande (2005) found that the reduction of rural poverty was associated with saving mobilization and credit provision in rural areas. They mentioned that India government incentive of nationalized banking access increased to the number of rural saving and loan account respectively 126 million and 25 million.

Moreover, financial service entrance encourage farmer for big investment in the planting season that result higher yield and progress of food security (SDGs No 2) Brune et al, (2015) field experimental among cash crop households in Malawi found that offering access to individual saving account not only increase banking transaction but also has significate and economical effect on household well beings such as investments in inputs and subsequent agriculture yield. It was disclosed by field experiment once Malawian farmers started to keep their earning deposit into the new bank they rose their spend 13% more on equipment and upsurge the value of their crop output by 21%.

FI enhances health care service by giving people the ability to manage medicine expenditure and overcome health shocks. Insurance and saving this two-financial service help to overcome any kind of health crisis. For instance, emerging research in Jordan suggests that insurance can help women to manage their defray treatment costs and various shock that hinder their economic activities and reduce income (Banking, Women's World, 2012). Another study base on Kenya found that 66% of ensuring a safe place to store money increase health expenditure by 66%. (Dupas & Robinson, 2013)

Nowadays digital technology support to improve financial inclusion as well as SDGs goal. Digital financial payment product - mobile banking account recently rise financial activities in the world. With the help of internet mobile banking allow people to send money anywhere to their friend and relative in a crisis moment to reduce financial crisis. Simply digital financial products help to increase remittance in an economy. Remittance money solvent a family as well as enhance the economy. Digital financing is varying region way. According to Findex in Europe and Central Asia, 46% of adults engage in at least one type of digital payment, compared with 9 percent of adults in the Middle East. Mobile phones help expand financial services – especially for people living in rural areas poorly served by traditional banks. In sub-Saharan Africa, 12% of adults make phone-based payments, mostly through mobile money accounts, a number that reaches 55% in Kenya. (Demirguc-Kunt, 2018)

### **3.5 Barriers of achieving inclusive financial Inclusion:**

From various research work and analysis found that financial inclusion is an important factor of development that why policymakers, researchers, the governing body are now very conscious about it. According to Global Findex, most of the unbanked population lay on the developing country especially South Asia and Africa. Barriers to financial inclusion vary from country to country. This paper would have explained the main barriers of financial inclusion that observed in most of the developing countries. The key barriers of people not entering financial service like the bank are given below:

#### *Barriers of insufficient or irregular income*

Insufficient or irregular income is a major problem of not entering financial service toward all adult populations of the world. Findex report found that unbanked most of the population live into developing and under developing where many populations have no fixed income. Martínez et al (2013) conducted a study base on Mexico found that 62% adult in Mexico aged between 15- 70 are not included in the financial system and 77% of this excluded people said that they don't have sufficient income, or their

income is variable or does not allow them to have an account or credit at a formal financial institution.

*Barriers of distance to the point of access*

According to Findex report geographical or physical access means the distance of household to a bank is a major problem of unbanked people of developing countries. For example, bank branches per 1000 square kilometres are used as an indicator for providing an initial idea to the barriers of inclusion. IMF data found until 2018 Bangladesh has less than 9 branches per 100,000 population and 77.73 branches 1000 square were in Denmark number of bank branches per 100,000 population is more than 21. Many of the population doesn't have access to a bank in rural and remote areas.

*Lack of proper document and gender biases:*

Lack of proper documentation such as ID proof, reference, is considered another barrier of opening a bank account. The literacy rate is not in most of the developing or underdeveloped countries that why people are not comfortable to use banking activities. Global Findex shows that most people use different methods of saving like keep in cash at home, buy gold or use the village club for saving money. Absent of proper to open bank account hinder people enter into banking service. A large number of women are a homemaker who has no recognized earning. Many times, banks ask for your source of money, so it is generally difficult to access those savings and credit facilities. Most of the time they need a male guarantee to access the credit (Islam & Mamun , 2011).

*Inadequate financial literacy and education:*

The country consists of low financial awareness and literacy. Particularly in the rural area, people are not conscious about financial service as well they are not educated about financial benefit as a result people are not willing to enrol in the banking system such as saving, credit, and payment.

*Inflexible term and condition:*

Banking activities are very time consuming and there is a lot of term and condition. Most of the cases in commercial banks need initial balance to open up it and minimum balance requirement that also least interest in using banking service (Islam & Mamum, 2011).

*Business-oriented banking business:*

Every commercial banks' ultimate goal is to profit maximization so that focus would not be increase access of all adult populations into the banking service. Islam & Mamum (2011) in a study base on Bangladesh mentioned that most of the bank don't prefer the small borrowers or small enterprise for giving loans. Hence those loan application trends to be rejected. They point out that commercial banks give more priority to big enterprise, businessmen and financially conscious. They also revealed that though the Government of finance and central bank of Bangladesh from the last one era has taken many initiatives to make accessible and affordable financial service, banks' business-oriented banking activities restrict country's flow of increasing banking access

Above all reasons are most common barriers inclusive financial inclusion. Most of the people of the developing and underdevelopment countries are suffering this problem that discourage them to enter into any financial environment.

**3.6 Criteria of measuring financial inclusion:**

Financial inclusion measures the inclusiveness of an economy. So, the measurement of FI is combining the multidimensional financial aspect of the economy such as banking penetration, available of banking service and usages of the banking system. Foremost, there is no standard method of financial inclusion.

Different studies (Sarma & Pais, 2011; UN: United Nations, 2006 and Beck et al 2008) use different criteria to measure the status of financial inclusion in an economy such as outreach dimension and actual usages dimension.



At first Beck et al. (2008) take initiative at measuring financial inclusion across the countries. From this study, the FI indicator is a composite indicator of variables relating to its dimensions. They mentioned two-dimension outreach and usages.

Outreach dimension two types of indicators are used. The first one is geographical penetration (number of bank branches or ATMs per 1000 square kilometres). Another one is demographic penetration (number of bank branches or ATMs per 100000 people).

Geographical penetration is indicated that more branches within 1000 square kilometres more geographical access to banking financial services. On the other hand, demographic penetration calculates the average number of people served by each bank and ATM. The high number of bank branches served 100000 people indicate easier access bank service and few clients for each branch.

In term of actual usage dimension, the indicators are the number of load accounts per 1000 people and the number of deposit account per 10000 people. To measure the use of banking service or access to financial of financial service these two indicators are used. The ratio of deposits/GDP or credit/GDP or (deposit + credit)/GDP is another indicator of usages that used frequently. Financial inclusion measurements depend on the level of development of a country and vary across countries or regions.

In later, Sarma (2008) exposed three dimensions of an inclusive financial system. The dimension was

- Banking penetration: The number of bank accounts as a proportion of the total population.
- Available of banking service: The number of bank branches per 1,000 population and
- Usage dimension: Bank credit and bank deposit as a percentage of GDP.

According to Hannig & Jansen (2010) and Serrao el at (2012), through four-lenses financial inclusion can be measured. First, access which refers to the capability of use

available financial services and products from organized or formal institutions. The second layer is quality which relates to the relevance of financial service or product to the lifestyle needs of the consumers. Third is usages that should go beyond the basic adoption of banking services and focuses more on the performance and depth of

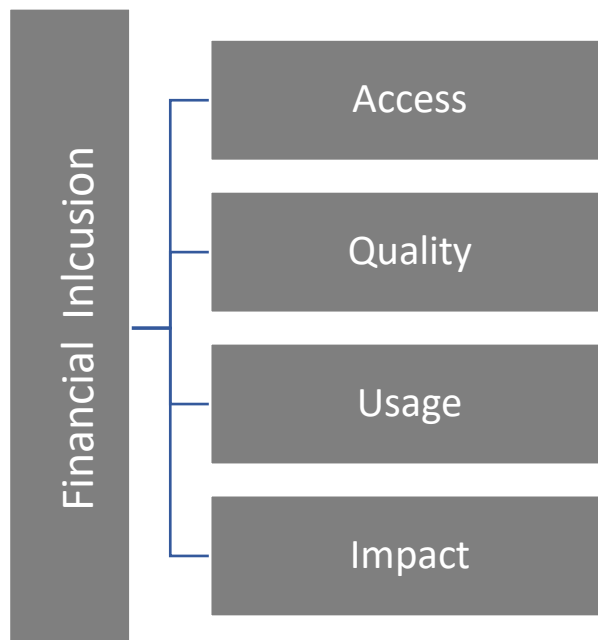


Figure 4: Four lenses of financial inclusion Source: Hannig and Jansen, (2010)

financial service and product use. The last layer is impact which includes determining changes in the lives of consumers that can be attributed to the usages of financial device and service.

Hannig & Jansen's four lenses of financial inclusion measurement serve two primary objectives considering different data needs. The first objective is a measuring and monitoring level of financial inclusion and the second purpose is deepening understanding about factors that correlate with financial inclusion and subsequently, the impact of policies.

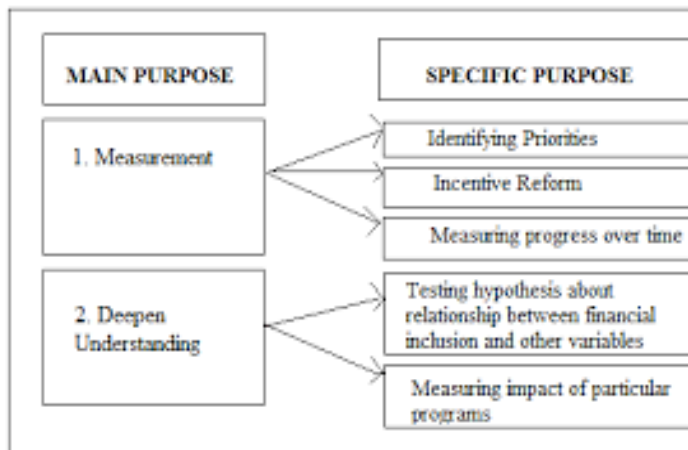


Figure 5: Measurement Objective

Source: Cited by Hannig &amp; Jansen

Another more holistic and comprehensive set of FI indicators has been recommended by G20<sup>4</sup> as a basic set of FI at the G20 Los Cabos summit in 2012. There financial leader and researcher recommended measuring financial inclusion as three dimensions. Such as (i) access to financial services; (ii) usage of financial services; and (iii) the quality of the products and the service delivery. (Larionova, 2012)

Above all are the most popular approach and criteria for measuring financial inclusion in an economy.

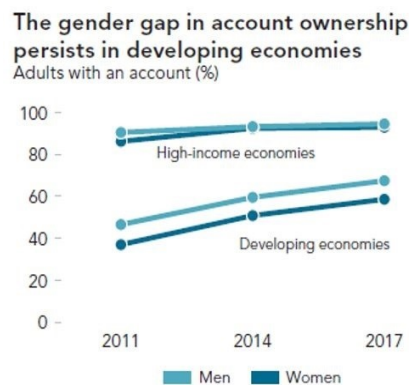
<sup>4</sup> The G20 (or Group of 20) is an international forum for the governments and central bank governors from 19 countries and European Union(EU)

#### 4. OVERVIEW OF WORLDWIDE FINANCIAL INCLUSION INDEX:

To get an overview of the worldwide financial inclusion scenario Global Findex database (<https://globalfindex.worldbank.org/>) has been developed that is launched with funding from the Bill & Melinda Gates Foundation. It is the world's most comprehensive data set of adults saving, borrowing, making payment and managing risk. Since 2011, every three years the database published this index and up to 2019 three times, these reports have been published. FI is a very important issue of policymakers all over the world because of its influence on the development and economic growth. According to the Global Findex report 2017, many poor people around the world deprived of financial service. From different indicators of FI main four criteria are account penetration, use, and access of accounts, saving behavior, sources of loan criteria.

**Account penetration** (Continued growth in account ownership): Global Findex 2017 has presented that globally 515 million adults worldwide have opened an account at the financial institution or through a mobile money provider between the periods of 2014-2017. In percentage around 69%, adult people all over the world now have an account that was 62% in 2014 and 51% in 2011. There is a large variation of the owner of an account between developed and developing countries respectively 94% and 63%.

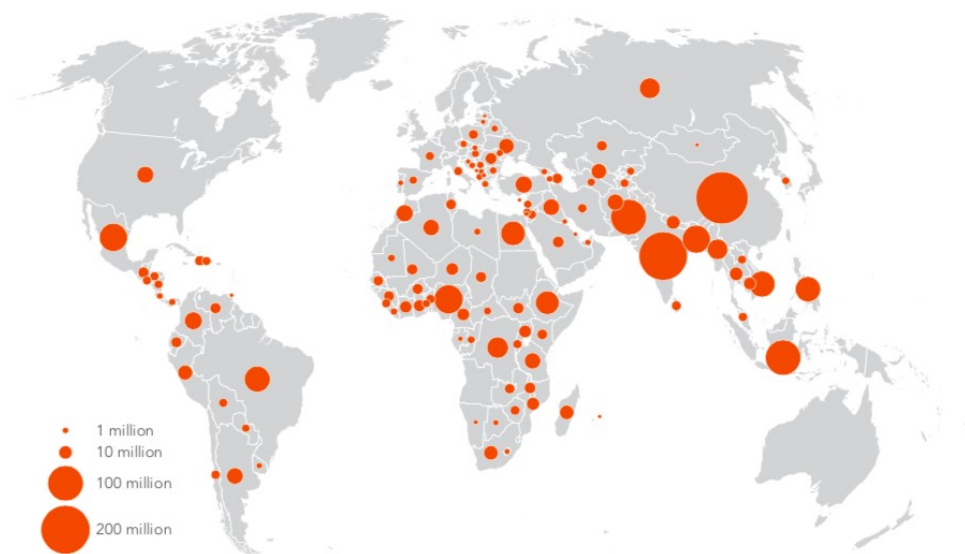
Figure 6



Source: Global Findex Database

Though an increase of account ownership gender inequality also continues over 2011-2017. Men's and women's account ownership gap is a 7% gender gap that was the same in 2014 and 2011. From the above figure 6 gender gap was slightly present within the developed country but from 2014-2017 it also the same. But in developing country a continuous trend has been seen from 2011 to 2017 that is 9%

Figure 7



Source: Global Findex Database 2017

Findex report reveals that globally 1.7 billion adults are unbanked- have no account at a financial institution or through mobile money providers. Though account ownership very high in high-income economies that why obviously, all these unbanked adult lives in the developing economies. In particular, half of the unbanked population lives in just seven developing countries; Bangladesh, China, India, Indonesia, Mexico, Nigeria, and Pakistan.

Among the unbanked 56% of all unbanked adults are women. Women are overrepresented among the unbanked in economies where only a small share of adults are unbanked, such as China and India, as well as in those where half or more are, such as Bangladesh and Colombia.

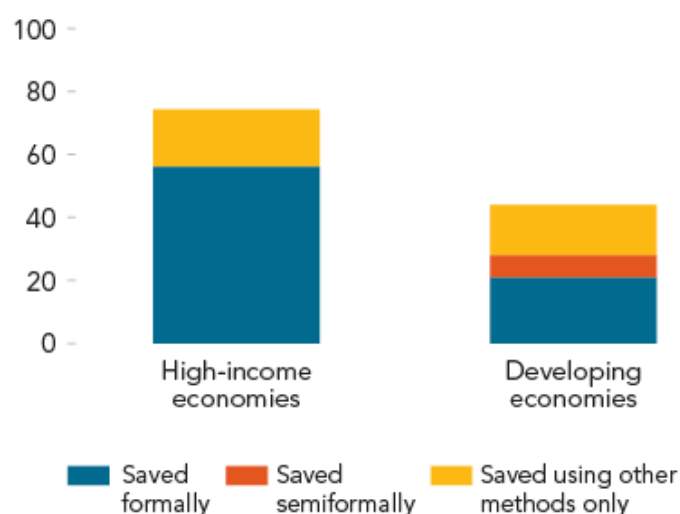
**Use and access account:** Among the account holder, globally around a quarter of adults receive payment from government as public-sector wage, a public-sector pension or government transfers. In high-income economies percentages is 43% and the share is half as large in developing economies. Most of the people worldwide receive government payment by an account except in the poorest economy. Likewise, 28% of adults globally receive private-sector wages among that 46% in developed economies and 24% in developing economies. The sale of agricultural products most of the time receive by cash only 15% of adults in developing economies receive payments from an account

Digital payment is becoming popular around the world. It is reported that over the last one year 52% of adult or 76% of account owners made or received at least one digital payment using their account. In high-income economies 91% of adults and in developing economies 44% of adults. In fact, 51% of adults in high-income economies reported making at least one financial transaction in the past year using a mobile phone or the internet other hands, in developing economies 19% of adults reported to do.

Figure 8

### Globally, more than half of adults who save choose to do so at a financial institution

Adults saving any money in the past year (%), 2017



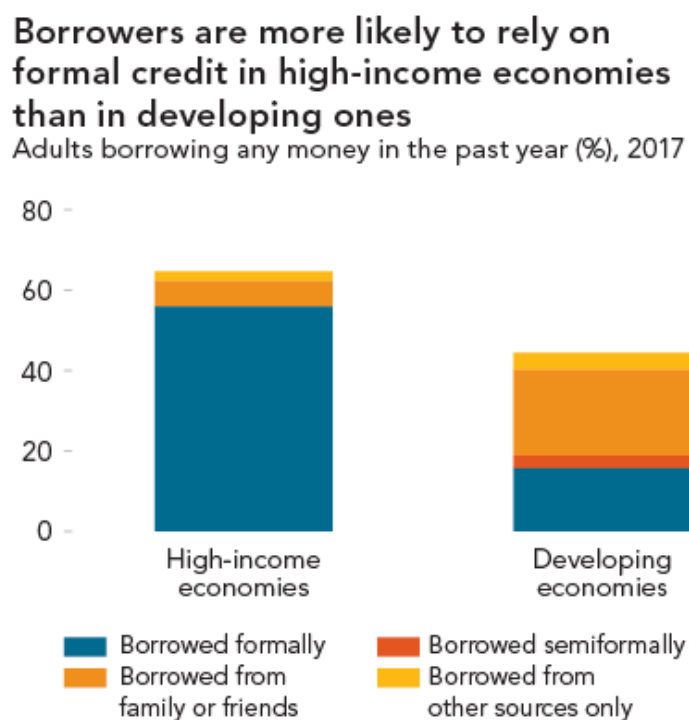
Source: Global Findex Database 2017

**Saving behavior:** Half of the adults globally reported save money in the past year. In the high-income economy, 71% adults reported saving while 43% adults in developing economics did. Different saving methods people use for saving such as formally saving in the financial institution, save semiformal (credit union, post office) and save other country base saving way.

According to Global Findex, 2017 around 71% of savings are reported in high-income economics, and 51% adult-use formal savings in a financial institution (Figure 8). In this case, percentages are very low in developing countries only 21% adult save in this way. Developing economics use more semiformal and other saving methods for saving. In contrast developed economics uses different saving method only 20%.

**Source of loan:** Globally half of the adult people reported borrow formally and informally. The big portion of their borrowing comes from a formal financial institution.

Figure 9



Source: Global Findex Database 2017

Figure 9 shows that most of the borrowing of the high-income economies rely on the financial institution and a small number of borrowing comes from friend and family and other sources of fund. By contrast, developing countries borrowing are usually from friends and families. Although in developing economics many people have the account, but they have limited access of the account and they are far behind in case of access and use of account that reflect their saving



## 5. RESEARCH FINDINGS

In the recent period policymakers change their direction of the financial system. Now the direction changed from financial development to financial inclusion. Inclusive finance is desirable for all countries. (Jonshon & Arnold, 2012) At this point many empirical works has been done on the topic of financial inclusion and economic growth issue. Among those research work, most of the empirical works have been done base on the developed economy content and left developing the economy with limited literature in this field. Author Park & Mercado (2015) in their article mentioned that financial inclusion in developing the economy is still in the infant stage.

Due to contrasting results from different literature there still an argument as to whether financial inclusion exploits a positive impact on creating economic growth of any economy. However, most of the cross-sections and individual economy base research work found a positive result between financial inclusion and generating economic growth. But it is also mentionable that some research wok also found a negative impact.

Overall my literature view has been divided into three-part. The first and second parts have described the positive effect of panel & cross-section studies and time-series & individual country-level studies. The last part has explained the negative effect of financial inclusion on growth.

### 5.1 Positive effect of panel and cross section studies:

Policymakers nowadays pay great attention to the effect of financial inclusion and economic growth, empirical studies base on financial inclusion have not received much attention. For this reason, only, a few cross-section and panel data has been found in this field. Most of the panel and cross-section studies found a positive effect between inclusive finance and economic growth. These studies consist of various approaches such as Generalized Method of Moment (GMM), Autoregressive Distributed Lag (ARDL), VAR regression and Ordinary Least Square (OLS). These

include Kpodar & Andrianaivo, Balach R et al, Kim et al, and Pradhan et al. Considering their result, financial inclusion plays a vital role in increasing a strong and well-organized structure of the financial system that finally enhances the growth rate of the economy. This section basically focusses on the above four researcher's cross-section research work. Summary of this four-research work has been given below:

In a panel data of 44 African Countries, Kpodar & Andrianaivo (2011) had used the GMM approach to investigate whether financial inclusion spurs growth. The purpose of the paper was how could the role of ICT development especially mobile phone penetration play role in promoting financial inclusion and economic growth. Most specifically they would investigate how the development of the ICT section help to make inclusive economic that let to economic growth. They mentioned that a good telecommunication network consents better information flow that decreases information asymmetries as well as creates easy deposit-taking and credit access.

Kpodar & Andrianaivo (2011) research work would follow the studies of Barro (1991) and Waverman et al (2005) that was also based on 44 African countries. And Waverman, et al (2005) studies also were the modified version of Roller & Waverman(2001) that was based on 92 countries between 1980 to 2003.

Kpodar & Andrianaivo found that since 1990 mobile phone with the prepaid contract has been growing rapidly in developing countries especially selected 44 countries. That way they had tried to examine the relationship between ICT and economic growth with the help of a standard endogenous growth model. The growth model used here like this:

$$y_{i,t} - y_{i,t-1} = \alpha y_{i,t-1} + \beta ICT_{i,t} + \Gamma X_{i,t} + \eta_i + \epsilon_{i,t}$$

*(Equation 1)*

Where variable  $y_{i,t}$  is the logarithm of real per head GDP,  $X_{i,t}$  is the set of growth determinants other lagged per capita GDP,  $\eta_i$  is an unobserved country-specific effect,  $\epsilon_{i,t}$  is the error term, and  $i$  and  $t$  represent country and time period.

To determine economic growth, they had used a set of variables such as real GDP per capita, primary school enrolment rate and other control variables such as inflation, government consumption, and institutional development. Besides, they added one variable of financial inclusion that is the number of deposits and the number of the loan per head to check how the coefficient on ICT movies. They said that if this efficient weakens, that they could conclude that at the same time by improving financial inclusion, mobile penetration impact economic growth.

After data analysis Kpodar & Andrianaivo (2011) found that the coefficient on the number of deposits per head and number of the loan per head had a positive and significant effect associated with higher economic growth in African economies. They revealed that better access to financial facilities allow the household to undertake productive investment.

In addition, access to deposit facilities increases the ability of financial intermediate to mobilize saving and it would help to get the highest return. They also found that mobile phone penetration had enhanced the growth impact of financial inclusion. Data analysis found a positive significant coefficient on the interaction term between the mobile phone increase rate and the number of deposits per head. Similarly, the result holds for the interaction term between the mobile penetration rate and the number of loans per head (Kpodar & Andrianaivo, 2011).

Finally, their analysis confirms that mobile telephone penetration could foster economic growth not only by facilitating financial inclusion but also by combining the impact of financial inclusion on economic growth. Their study found that higher mobile phone penetration made easier to have access to deposit and loan. It had been examined that better information flow through the mobiles improve information acquisition of both depositors and financial institutions and improve monitoring. They said, ICT development assistance African countries to reduce the cost of financial intermediation and contributes to the emergence of branchless banking service, that help to improve access to finance for households that would be credit constrained other hand (Kpodar & Andrianaivo, 2011).

Another author Rasheed el at (2016) in their study try to examined whether financial inclusion could help to promote financial development. In this study, to analyze financial the determinants of financial development author Rasheed el at had been using a system generalized methods of the moment (system GMM) in a panel of 97 countries during 2004-2012.

Though it has been found that real GDP per capita promotes financial development (Demetriades & Hussein, 1996) that's why their research work included GDP per capita as a control variable for financial development. They also considered here trade openness and financial openness because openness affects financial development (Rajan & Zingales, 2003). Along with Rasheed el at (2016) Law & Habibullah (2006) mentioned institutional quality indicator as strong institutional quality for improving financial development and economic growth. Rasheed el at (2016) also included public debt in their research work because the profitability of domestic banks rises with greater public debt, but it reduces their efficiency if public debt exceeds a certain level of threshold. Thus, public debt is expected to carry a negative sign.

Considering all that criteria, they developed the empirical model like this:

$$\ln FD_{it} = \beta_{0i} + \beta_{1i} \ln FD_{it} + \beta_{2i} \ln FI_{it-1} + \beta_{3i} \ln GDPC_{it} + \beta_{4i} \ln PD_{it} + \beta_{5i} \ln TO_{it} + \beta_{6i} \ln FO_{it} + \beta_{7i} \ln INS_{it} + u_{it}$$

(Equation 2)

Where, FD = Financial development

FI = Financial inclusion

GDPC = Real gross domestic product per capita

PD = Public debt

TO = Trade openness

FO = Financial openness

INS = Institutional quality and subscript  $i$  and  $t$  index countries and time respectively.  
and

$u_{it}$  = Error term.

Rasheed et al (2016) has used a dynamic system of GMM for analyzing data. The empirical result showed the result of two different indicators of financial developed, namely domestic credit to private sector and stocks traded, turnover. Data set was developed by 97 developing countries where used the number of bank branches and ATMs are two dependent variables that are also indicators of financial inclusion.

Results found that both types of financial inclusion indicators promote financial development with positive and statistically significant with a 1 % coefficient level. It explains that financial inclusion promotes bank-based financial development. Moreover, institutional quality is statistically significant that also determinant banking sector development. Result also found a positive and statistically significant result in the coefficient of real GDP per capita. Other hand, they got a negative result in the trade openness variable. Overall, the empirical result of financial inclusion indicators exemplifies an insignificant relationship between stock market development. The reason he mentioned that most developing countries have an underdeveloped stock market and might be fewer bank branches.

The next reviewed research work had been developed by Kim et al (2018) where they tried to examine the relationship between financial inclusion and economic growth in the Organization of Islamic Cooperation (OIC<sup>5</sup>) countries. To get the multilateral result they had used panel data of 55 OIC countries. Among 55 OIC countries, three countries from East Asia & Pacific area, eight countries from Europe & Central Asia, two countries from Latin America and the Caribbean, twenty countries from the Middle East and North African, four countries from South Asia and twenty countries from

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<sup>5</sup> The Organization of Islam Cooperation (OIC) is an International organisation founded 1969 consisting of 57 member states with a collective population of over 1.8 billion as of 2015 with 53 countries being Muslim-majority countries.

Sub-Saharan. The sample period was from 1990 through 2013. They have used GDP per capita (GDPPC) as a proxy variable for economic growth.

Kim et al (2018) have considered five macroeconomic variables such as inflation for consumer prices (INF), population growth rate (POP), unemployment rate (UNEMP), school enrolment for primary education (SEP) and trade percentages of GDP (TRADE) that had been inspired from Bjork (1999) and Mankiw's (2012) previous literature.

To measure key factors of financial inclusion they had been utilized five most important variables of measuring financial inclusion. These are:

- The first proxy is automated teller machine per 100,000 adults which can be a measure of ownership of the account
- Second, the variable is bank branches per 100,000 for considering the penetration rate of financial institutions.
- The third proxy is deposit account in commercial banks per 1000 adults as a measure for saving
- The fourth measure is borrowers from the commercial bank per 1000 adults as a proxy for credit.
- The last indicators are used of life insurance premium volume to GDP as a proxy for insurance (Kim et al, 2018).

They defined that financial inclusion means accessibility and availability of formal financial services such as bank deposits, credits, insurance, etc., all participation in an economy. In that sense, many societies suffering from a low level of financial service due to the unavailability of financial service (Kim et al, 2018).

They mentioned in the research that Muslim are  $\frac{1}{4}$  population of the world, who are voluntarily allow themselves to be financially excluded. One of the main reasons is the current financial system against Islamic religious rules called Shari'a. From the last decade, Muslim people have been introduced Shari'a compliant financial products and insurances that allow them to enter into financial activities. The result of their research work has a great impact because the prospective demand for financial

service would increase as a variety of Shari'a Compliant financial products increases since the participation of this financial market is remarkably low. (Kim et al, 2018)

So, their main objective had to examine the influence of financial inclusion upon the diffusion of Shari'a compliant financial systems on economic development by estimating the dynamic relationship between financial inclusion and economic growth. They have organized their study following way, first, select proxy variables for financial inclusion and economic development in OIC countries and second, implement dynamic panel data analysis for the separate geographic region (Kim et al, 2018).

They examine Impulse Response Functions (IREs) of panel autoregressive (VAR) methodology to explore the dynamic relationship of proxy variables, that would help to examine the overall relationship of variable and can draw information that is more reliable for comparing the result from the dynamic panel data analysis. As well as, they have analyzed the panel Granger causality tests to examine the direction of the variable that could help to determine whether there is a causal relationship between financial inclusion and economic development (Kim et al, 2018).

Also, that Kim et al (2018) has been used Arellano- Bond dynamic panel model to consider both the dynamic effect of dependent variables and the exogenous of the dependent variable. Their data analysis found that all models of macroeconomic variables such as INF, POP, SEP, TRADE, and UNEMP have alternative statistical significance. INF has a positive effect and on GDPPC. In the interim POP and UNEMP has a negative effect on GDPPC. Here it is noticeable that population growth (POP) has a negative effect on economic growth. Though it is ordinary understanding that population or labor force has a positive effect on economic growth but in the case of OIC countries this could be different. (Kim et al, 2018)

Their data analysis also revealed a positive relationship between financial inclusion and economic growth. It has been found that Ln ATM, Ln BRCH, Ln DEPO, and Ln BORR have a positive effect on Ln GDPPC at 1 % statistically significant level. Another variable LINSUR has no significant significance. (Kim et al, 2018)

They also examine the panel VAR analysis to explore the dynamic relationship and timing of the proxy variable for financial inclusion and economic growth. Concentrating Ln GDPPC to financial inclusion variable, they found that Ln ATM, Ln BRCH, Ln DEPO, and Ln BORR has a positive effect on GDPPC as time passes. (Kim et al, 2018)

Finally reporting the Granger causality test to focus on GDP and causality of financial inclusion variable. Results found for each proxy variable also found that statistically significance respect to GDPPC. They found that Ln ATM, Ln BRCH, Ln DEPO, and Ln BORR Granger cause Ln GDPPC with 10 %, 5%, 1% and 10% statistical significance. (Kim et al, 2018)

So overall Kim et al (2018) research work has been tried to attempt and explore the effect of financial inclusion on economic growth in OIC countries. First of all, panel dynamic regression results revealed a positive effect between financial inclusion and economic growth in OIC countries. As well, the IRE result derived from panel VAR analysis also recommends that financial inclusion most of the time has a positive effect on the economic growth of OIC countries. Finally, the Panel Granger causality test also got evidence for the overall causality of financial inclusion factors over the economic growth in OIC countries.

The last research work that has been reviewed in this section is prepared by author Prasad Bist (2018). In his paper, he aimed to investigate the long-run relationship between financial development and economic growth using panel unit root and panel cointegration analysis in 16 selected low-income countries for the period from 1995 to 2014. He has used a modified and dynamic Ordinary Least Square (OLS) technique to estimate the long-run relationship.

The study has made the use of second-generation panel unit root test in the presence of cross-sectional independence. In addition, the panel short-run causality test has been also used to analyze the direction of causality between financial development and economic growth. He has used a simple linear regression model where LGDP is the dependent variable of economic growth define log of real gross domestic product (GDP). Other independent variables are Credit to Private Sector (PRVT), Gross Fixed



Capital (GFC) information, Trade Openness (OPE), Consumer Price Index (CPI) and Labour Force (LF)

He has used four steps for data analysis; Checking the level of integration of the variable, testing for the long-run cointegrating relationship amongst variables, estimate long-run cointegrating parameters and finally testing short-run causality between financial development and economic growth (Bist, 2018).

After analysis cross-sectional dependence and panel unit test results found that expect LF variable all variables used in this study have rejected the null hypothesis of no cross-sectional dependence. Then long-run co-integration test also found that in 1% significant level financial development has a positive and significant effect impact on economic growth. He found that a 1% increase in credit to the private sector increases a 0.015% increase in real gross domestic product. Credit to the private sector actually indicates the financial development of the financial sector (Bist, 2018).

In his research work, he also found that long-run estimates of private credit are positive in the majority of countries. He showed that estimates found out of 16 countries 9 countries have positive and 1% significant level impact of private credit on economic growth. So, this finding suggests that the flow of credit to private positively reflects on economic growth.

However, estimates have also revealed that three countries such as the Central African Republic, Madagascar, and Mozambique had a significant and negative impact of finance on economic growth. Here Bist (2018) mentioned that poor development systems and a higher level of non-performing assets could be the cause of this type of negative relationship between these countries. Similarly, this study has shown unidirectional causality from economic growth to financial development in short-run.

Finally, this section described four-panel and cross-sectional studies that revealed that financial inclusion or development has a positive impact on economic growth. This four-research work is based on low or middle-income countries base. And It is already found that most of the high-income countries have an inclusive financial system and

most of the low and middle-income countries are deprived of inclusive financial service in their economy.

## **5.2 Positive effect of financial inclusion and economic growth**

As well as cross-sectional and panel data research, financial inclusion effect on growth has been also revealed in individual country-level time-series studies. Considering financial inclusion indicators such as branches of the commercial bank, credit deposit ratio and number of automatic teller machine most of the studies agree that financial inclusion positively impacts the growth of those countries.

Despite, account ownership is nearly 100% in a high-income economy, virtually all the unbanked adults live in developed countries. Global financial database 2017 showed that half of these unbanked populations live in just seven developing economies; Bangladesh, China, India, Indonesia, Mexico, Nigeria, and Pakistan. That why many studies have been found the base on these countries. Comparing penal and cross-sectional research work a lot of studies have been found on the individual country level. These including These including Babajida et al (2015), Omojolaibi (2017), Lanka & Sharma (2017), Onaolapo, A. R. (2015), Iqbal & Sami (2016), etc.

Babajide and other researchers in 2015 conducted a study to investigate the impact of financial inclusion on economic growth in Nigeria. They mentioned that according to previous studies financial development have identified by four separate areas as the driving force of economic growth. The first one is the provision of low-cost reliable means of payment to all, especially the poor income sector. The second one is the role of a financial intermediary for increasing the volume of transaction and allocation resources from the surplus unit to deficit unit of any economy that improves the resource distribution. ( Odeniran & Udejaja, 2010; Babajide et al, 2015). The third one is related to the risk management effect. The financial system helps to curtail liquidity risks that enable the financing of risky but productive investment and innovation to the economy. (Greenwood & Jovanovic,1990; Bencivenga and Smith, 1991). Finally, the financial sector delivers information on possible investment and available of capital within the system, that enriching the effect of asymmetric information (Ross, 2004; Babajide et al, 2015)

Babajide et al (2015) used secondary data sources from world development indicators and the ordinary least squares regression model for data analysis. They used data from the period of 1981 to 2012. In this research, they have used commercial bank deposit (CMBD) as a proxy of the account holder as a dependent variable to determine financial inclusion. Capital per worker, total factor productivity, interest rate, number of bank branches, total natural resources, wholesale sell and retail contribution to GDP, income inequality (Gini) polity 2 (measures democratic practice on a scale from -10 to +10 with higher values indicating greater institutionalization of democratic procedures) were considered here as independent variables.

Their data analysis found that the number of bank branches per 100 km<sup>2</sup> or per 100,000 adult and commercial bank deposits (CMBD) had a significant positive impact on total factor productivities. It had been found that capital per worker plays a significant role in the determination of bank deposits within the bank system. Also, the result found that revealed expending bank branches could attract customers far from the main branches, who ordinarily would not have been able to open a formal account with such banks. Similarly, the political environment and level of income among different categories of workers might be also considered an important determinant factor in assessing the rate at which people allow their financial transaction through a commercial bank (Babajide et al 2015).

Their empirical data analysis showed that commercial bank deposits, bank deposit rate and total natural resources rent have a significant effect on total factor productivity. Research analysis also revealed that previous years' deposit account of bank customers has a significant positive impact on the current total factor productivity of Nigeria. That indicates a positive growth trend in the economy of Nigeria (Babajide et al 2015).

Another very recent study based on the same country has been conducted by Omojolaibi (2017). He revealed that generating per capita GDP and reducing poverty financial inclusion is a very remarkable factor. The main objective of his study was finding the answer to two questions; first, does financial access and governance structure affect investment in infrastructure, per capita GDP and income inequality in Nigeria? Second, does economic progress lead to poverty reduction in Nigeria?

The author Omojolaibi in his study have used a GMM estimator for analyzing data. To determine the impact of financial inclusion on economic growth he used a model where GDP per Capita to consider as the dependent variable. Here also, independent variables were almost the same as Babajide et al (2015) study expect three additional variables such as control of corruption, business freedom, and loan to the rural area.

After data analysis, he found that commercial bank deposits, control of corruption, loan to rural areas, the number of Bank branches, were positively related to Per Capita GDP. As a result, the increase in these variables would lead to an increase in the per capita GDP of Nigeria that overall contributes to improvement in the living standard of the public.

According to Onaolapo (2015), the inclusive financial arrangement is becoming a policy issue in both developed and developing a nation of the world because it has been seeming as a veritable tool for poverty alleviation and economic development. In his study, he has tried to examine the effect of financial inclusion on the economic growth of Nigeria. The main objective of his study is to undertake the depth of review of the effect of financial inclusion on Nigeria's economic growth in the thirty years 1982-2012. Specifically, he wants to focus this paper to examine the effects of financial inclusion on Nigerian bank intermediation activities and poverty reduction on economic growth. He has used three separate econometric models for calculating three specific relations such as financial inclusion and poverty reduction; financial inclusion and economic growth; financial intermediate and financial inclusion.

Onaolapo (2015) found that last thirty years the number of bank branches, loans to rural areas and agricultural credit guarantee scheme fund has a positive impact on a dependent variable per capita income. He also revealed that the loan to deposit ratio and liquidity ratio has a positive impact on national economic growth. Finally, the empirical analysis found that all financial intermediation variable indicates positive impacts on financial inclusion.

India is one of the largest populated countries all over the world and still now only 40% of adults have a bank account. So inclusive finance system is required not only in India but also the political priority of most of the countries. Inclusive financial assess

improves the financial condition and living standard of the poor and deprived section. Likewise, the Reserve bank of India (RBI) has been taken continuously stimulating the banking sector to extend the banking network. That's why many research works have been found on the base of the Indian economy.

To measure inclusive economy Sarma (2008) write the index of financial inclusion. She said that financial inclusion is now a policy priority for many developing countries. Although it is a widely recognized issue but lacks the literature is a comprehensive measure that can be used to measure the extent of financial inclusion across economies. Fulfilling that gaps Sarma (2008) attempted to introduce an index of financial inclusion (IFI). Her proposed IFI captures information on various dimensions of financial inclusion in a single number lying between 0 and 1, where 0 denoted complete financial exclusion and indicates complete financial inclusion in an economy.

In 2011 Sarma & Paris (2011) conducted a study to examine empirical analysis on specific factors of FI to find out the relationship between financial inclusion and development. They concluded that human development and financial inclusion are strongly positively correlated.

In line with previous research, Iqbal & Sami (2016) conducted a study pointing to examine the impact of financial inclusion on the growth and development of the economy. They also used secondary data sources from the period of 2007 to 2104 and a multiple regression model as statistical tools. In the regression model, Gross Domestic Product (GDP) is the dependent variable and three financial inclusion indicators; the number of bank branches, ATMs growth rate, and credit deposit ratio is independent variables.

Their data analysis found a high correlation between the dependent and independent variables. In specifically, multiple regression reveals that the number of bank branches and credit deposit ratio has a positive and significant impact on GDP. That indicated the financial inclusion impact of the economic growth of India. But another variable ATM growth rate's beta value found negative which shows the negative insignificant

impact on GDP. Overall their studied exposed that the continuous growth of the banking sector impacts the GDP of India's economy.

Likewise, Lenka and Sharma demonstrated a study in 2017 on India from 1980 through 2014 to find out the effect of financial inclusion and economic growth. They have used Autoregressive Distributed Lag(ARDL) and Error Correction Model (ECM) for data analysis. They also got a positive and noteworthy result between financial inclusions economic growth of Indian in the short-run and long run. As well as estimators found a unidirectional relationship between financial inclusion and economic growth. ( Lenka & Sharma, 2017). They said that many research works based on India proved that the RBIs rural branch expansion program significantly reduce rural poverty and increase non-agricultural improvement that obviously reflects on countries' GDP.

Overall argument for the most of these studies highlighted the accessibility of financial service and product toward every adult person of the society for example adequate credit facility at a reasonable cost for poor people, introduce formal payment system, transfer and deposit service, increase number of financial institution and its sustainability in order to ensure positive effect of financial inclusion on growth effect on any economy.

### **5.3 Negative effect on financial inclusion and economic growth**

Inspire of many positive impacts of financial inclusion is good for enhancing economic growth, however, this concept is not valid all the time. It has been found that difficulties to ensure the significant effect of finance on growth. Sometimes because of country policy, way of their live and inefficient financial service hamper economic growth. From this sense, some researchers found a negative impact between financial inclusion and economic growth. Among this research work, three studies have been reviewed in this section.

Barajas et al (2012) appealed in their research work that financial inclusion and economic growth have not always provided a positive link in all economic growth.

They conducted a study based on a rich dataset for more than 130 countries in the period from 1975 to 2005. This paper has used GMM dynamic panel methodology to investigate whether financial inclusion and economic growth effect varies across countries and specifically in a certain region, oil-dependent and low-income countries compare to the rest of the world. They have tried to explore three dimensions of possible heterogeneity in finance-growth nexus; by income level, across regions and between oil exporters and other countries.

In the part of income level, it has been proved that normally low-income countries suffering from the shallow financial system. As well as most of the low-income countries have a lack of supporting legal, institutional, regulatory supervisory infrastructure also allows impacting negatively. Also, lack of competition and efficiency, both financial and real sectors could play an important role to weaken the growth of impact as well (Barajas et al, 2012).

They found that in the Middle East and North Africa countries those countries are not in the high-income Gulf Cooperation Council group- banking sector intensity produces a lower growth impact while in the rest of the European Central Asia impact is greater. The research revealed that on average MENA countries have no international standard banking and stock market both. As a result of their weak banking system and inability to convert bank deposits into credit to the private sector, their credit- deposit ratio has a downward trend while all of the other regions have an increasing ratio (Barajas et al, 2012). Natamba et al (2013) study also agrees with this research work.

Where Pearce (2011) added that though there is a remarkable growth in productivity and efficiency, the inability of the financial system to reach most of population include poor, women and elder and other disadvantaged group is a major reason behind negative impact between financial inclusion and economic growth.

Another research work based on financial development and economic growth of China's economy has been done by Wang et al. (2015). The primary objective of their research was to examine the relationship between financial development and economic growth specifically the impact of financial development on the growth of primary, secondary and tertiary industries of China. They have used Ordinary Least Square

(OLS) multiple regression that has been applied on a data set from the period 1978 to 2013. They have tried to determine the effect of financial development on economic growth while controlling for other macroeconomic variables namely labor force, capital growth, inflation rate, and export growth. (Wang et al. 2015).

They have been used Lee & Wong (2005) multiple regression model to analyze the relationship between financial development and economic growth, where GDP is dependent variable and labor force, capital growth, financial development index, export growth rate, and inflation are the independent variables (Wang et al. 2015).

Their data analysis found that financial development has a negative effect on the economic growth at 99% confident interval. These results have consisted of other empirical studies such as Hasan et al (2009) and Adusei (2013) who also found a negative relationship between financial development and economic growth in China and Ghana. The empirical result shows that financial development has a negative effect on economic growth in general but the growth of the tertiary industries. On the other hand, the result found that financial development has no significant effect on the primary and secondary industries. Hasan et al (2009) in their research paper said that the negative financial-growth relationship in China is caused by high non-performing loans in the state-owned bank. In addition, they mentioned that the Chinese banking sector is dominated by state-owned banks and non-performance of these banks are reasonable for these negative impacts.

Not only a recent study previous study also demonstrated that bank development index bank and credit to provide sector development for MENA (Middle East and North African Region) countries had an inverse effect on economic growth (Neceur & Samir, 2005). Author Neceur & Samir based on the GMM estimator conducted this study using an unbalanced panel data of 10 MENA region countries. According to their study, their study has used a new panel econometric technique that solves statistical drawbacks with existing data from MENA countries to calculate the relationship between the stock market, banks, and economic growth.



Their data analysis found that in the GMM level specification, the result shows that the financial sector has no impact on economic growth whether they consider the financial market or banking sector development (Neceur & Samir, 2005).

More specific, the GMM system specification result found that the relationship between stock market development and growth is negative and significant after controlling for bank development for all measures of financial market performance. The study more revealed that a high degree of financial repression and weak equity market has been responsible for hampering the sustainable growth of the MENA region. Besides, sluggish and unbalanced growth of this region also caused to weaken any relationship between financial inclusion and economic growth (Neceur & Samir, 2005). In line with previous studies, Arestis et al. (2001) demonstrated a sluggish and relationship between financial deepening and growth.

Above all discussion found that there is a variation between the level of development and inflation across the countries however some of the counties that found weaken relation has been overlooked that the rapid depth of banking system in a given country may discourage the productive credit that result to rise the inflationary pressure

## 6. CONCLUSION

Finally, in this literature review I have presented twelve research work findings to that showed financial inclusion have impact on economic growth and it is an important agenda for developing countries. According research findings chapter, It has been found that there is a significant relationship (negative or positive) between financial inclusion and economic growth of any economy. Chapter 5 reviewed studies authors and researchers have been provided their various recommendations and suggestion on this field.

Such as Andrianaivo & Kpodar (2011) though that mobile phone diffusion has an important impact to boost financial inclusion by enabling the provision of cost-effective financial service to the poor and the nonpoor. They suggested that policy to promote interaction between the ICT and financial sectors could promote the development of mobile banking in this region. They mentioned the experiences in Kenya, Zambia and South Africa where mobile financial services help to reduce the financial infrastructural gap and lack of access to financial services in Africa.

Bist (2018) suggested that policymakers should be focused on long-run policies to boost the financial sector in low-income countries. He also said that the negative effect of credit to the private sector in a few countries further increases the urgency for the policies that reduce the non-performing assets and strengthen the credit guarantees. He also recommended that policymakers also concentrate on formulating the policies that provide a favorable environment for the private sector to grow. Another important policy implication has been found from his study that the policymaker should give more emphasis on growth-related activities or fiscal policy as short-run causality is to be found to be demand following.

Moreover, Rasheed et al (2016) conclude that the government needs to develop a better understanding of finding financial inclusion and financially excluded people might decide to open accounts in the banking sector due to effective policies. Their paper suggested that international policymaker for long term economic development and financial development. They said that globalization and advance technology might affect financial inclusion.

Kim et al (2018) have proposed several recommendations for enhancing the contribution of researchers for financial inclusion in OIC countries. They said though their study found a positive relationship between financial inclusion and economic growth of OIC countries, there has been some difference between every country and the level of financial inclusion. The reason behind these they explained different religion levels, literacy rate, interest rate gender inequality, income level, policies, etc. Their recommendation was if researchers consider the above fact they could find out the proper effect of financial inclusion in Islamic countries. Although, they have proposed to calculate the financial inclusion index using multiple financial inclusion measures.

Babajida et al In line with this kim (2015) though a need of adequate financial and political security to measures financial inclusion and growth. A financially and politically secure financial system would heighten public confidence in formal account opening and increase saving deposit mobilization within the financial system. Also, they recommended that natural and economic resources should be sufficiently harnessed that in other way interpreted revitalization and diversification of Nigeria's Oil- dependent monocultural economy.

Iqbal & Sami (2017) said financial inclusion is strongly associated with the progress and development of the economy. They suggested that proper financial inclusion regulation in the country access financial service and customer awareness E-banking training and financial literacy programs

Lenka and Sharma (2017) also agreed with the above researchers. Their estimator suggested that the government of any economy in the case of India, the Government of India plays the main task of improving efficient financial institutions or intermediation, which will simultaneously stimulate financial inclusion as well as economic growth.

Onaolapo (2015) after his study suggests that though financial inclusion would have a positive effect on the economy of Nigeria. Still, this study has been contained some limitations. For example, this study only examines the relationship between financial inclusion on Nigerian Economic growth, where the leading financial component was

payment investment. So, in this study, other financial services have not been considered that is also a big scope of future research on this field. From this study, the author wants to provide a signal to the financial regulators on the need for proper guidelines or regulations in the place that would inspire financial intermediation among the unbanked population. Finally, he recommended the necessity to create a deposit and borrowing channel at an affordable cost to the poor and the income group erstwhile called the unbanked.

Like other researchers, Omojolaibi (2017) also recommended a need for adequate financial and political security to be put in place. It has been found from previous literature on Nigeria that the financial institution variables and governance perception guides are important in the transmission mechanism of financial inclusion and governance to investment and per capita GDP of Nigeria. His recommendation also supports the suggestion of Hahan (2008) that emphasis on good governance, high instructional quality and increase financial service to remarkably improving the poor in developing countries.

According to him, corruption is a very crucial problem in developing countries like Nigeria, the transparent democratic practice would increase investment in infrastructure and improve per capita GDP that would finally help to alleviate the poverty of Nigeria. He has also prioritized the role of micro-finance, especially in the low-income group. He said, micro-finance help to provide credit and improve financial service to the poor people that enable them to undertake productive activities and growth welfare (Omojolaibi, 2017).

Some researchers found a negative relationship between financial inclusion and economic growth and they have suggestions and recommendations in this field. It has been noticeable that region and country base results should be negative or positive so regional cultural, way of living standard, gender equality and rich-poor gap are the most important limitation on this region.

For example, according to Naceur & Ghazouani (2005) MENA (the Middle East and North Africa) countries need to improve the credit allocation process by privatizing national banks, by strengthening credit regulation and reinforcing competition in the

banking sector. They mentioned that the underdeveloped financial system of MENA countries is reasonable for hampering economic growth or to the unstable growth rate in this region that affects the quality and of association between finance and growth. As well most of the MENA countries' stock market is not strong yet, proper regulatory infrastructure and monitor are essential to spur economic growth in this region.

Wang et al (2015) Argued that the high ratio of M2 / GDP in China could be responsible for affecting economic negative growth and it also caused of undeveloped Chinese stock market. So, they recommended that the government should need to pay more attention to developing the capital market and thus provide more options for Chinese households to distribute their money. They suggested that future researchers consider alternative measures for financial development according to China's economy. Such as they used the growth rate of the total population to measure the labor force and future researchers could extend their work by using a working-age population to investigate whether the different results could be found.

Finally, Barajas et al (2012) cited about challenges of policymakers in MENA and low-income countries have faced. They said establishing and consolidating macroeconomic stability and on-going financial reform both are essential for greater financial deepening both in the banking and stock market. They suggested to effort that MENA and poor countries could follow.

Firstly, weaknesses of credit expansion must be reduced especially in low incomes countries and credit per unit to deposit has to be increased. According to them, financial dominance policy or over-restrictive monetary policy both might be responsible for diverting bank funds away from financing the private sector. Secondly, policymakers should be followed in actions that increase the quality of bank intermediation by inspiring improvement in access and greater competition.

Overall most of the researchers' emphasis more on regulating financial regulation. Because proper guidelines or regulations inspire financial intermediations in an economy that is essential for inclusive finance. Besides some of the studies suggested developing the capital market, transparent democratic policy and increase investment

in infrastructure to make an inclusive financial environment that impacts on the economic growth of any economy.

In conclusion, the relationship between financial inclusion and economic growth are inconclusive still because of mixed result found from the different studies. They claimed that financial inclusion has a negative effect on economic growth. The positive views for financial inclusion on growth, based on the accessibility of banking services such as; increase bank branches, reducing the barriers to getting finance and contribution of the banking sector. Most of the studies recommend that it would be valuable to the policy to pay their part in increasing the network branches, dissemination of financial services and eliminate all barriers to access financial service to ensure economically sustainable derived from financial inclusion.

By contrast, studies that found a negative relationship between financial inclusion and economic growth also due to weak financial system, lack of transparency, lack of financial system, etc. In the interim, policymakers have to encourage the availability of the financial system to increase the segment of the society in motivating effect on growth, in society and the nation as a whole.

Overall, all literature shows that financial inclusion is an effective solution for the growth economy in numerous dimensions and several methods used to access this link. Though some of the studies used only one variable to get access to the effectiveness of financial inclusion on growth. Generally, financial inclusion is a multidimensional process, so using only one variable could not find clear information about it.

Overall, different researchers found different effects between financial inclusion and economic growth, but it is clear that financial inclusion impact economic growth that may be positive or negative.

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