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IMPACT OF FINANCIAL INCLUSION ON ECONOMIC DEVELOPMENT OF PAKISTAN (AN APPLICATION OF SEM)

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ABSTRACT- Financial inclusion associates the people with the financial system of the country; so that they can use financial services and products to fulfill their basic needs. This research study mainly deals with the impact of financial inclusion on economic development of Pakistan. First find out the determinants of financial inclusion and then its impact on economic development through structural equation model. Data normality was tested through P-P plots. Multicollinearity was also checked. Econometric results indicated that access and availability are the strong determinants of financial inclusion and further it has positive and significant impact on economic development of Pakistan.

KEY WORDS: Financial inclusion, Economic development, Pakistan

JEL CLASSIFICATION: C4, E2, G2, M2

I. INTRODUCTION

Economy of any country depends on the financial system of that country, and financial system means the components which brings finance into the country as well as out from the country. The

finance which flows towards the country is known as financial inclusion (FI). Financial inclusion is gaining much importance around the worldwide in the recent years because the demands of every country are increasing day by day with the limited resources and the organizations want to capture the market at international level. Thus the word financial inclusion refers to all the financial services that can be used to measure economic progress of the country (Beck, Kunt & Levine, 2007).

From 1990s, the financial sectors of Pakistan made tremendous success in the profitability, diversity and other financial services. This success is considered to be the results of State Bank of Pakistan who supervised and provided leadership to financial inclusion by identifying and providing the different facilities. These facilities include online services specially credit information, safe and steady methods of payment from one place to another place, interbank transactions services, customers focused services, provision of financial education seminars and programs, and many borrowing and lending schemes according to the requirement. Pakistan was considered in top ten at international level in 2014 due to creation of financial inclusion environment and its microfinance services were considered best in 2008 at international level (Financial Inclusion Insights, 2014).

Financial markets are established to encourage the peoples and attract them by providing more beneficial and advantageous policies about the investment and saving. By increasing the saving and investment the increase in economic growth can be seen very easily (Aghion, Angeletos, Banerjee, Manova , 2004).

As financial markets play vital role in the financial services of the country, so from this position the importance for the economic development cannot be eliminated. Some policies rejected the positive relation between finance and development while many theories [Fri (1976), Hicks (1969) and Thakur (1978) accepted this fact that finance is the main force for economic development (Hamad & Sulong, 2018).

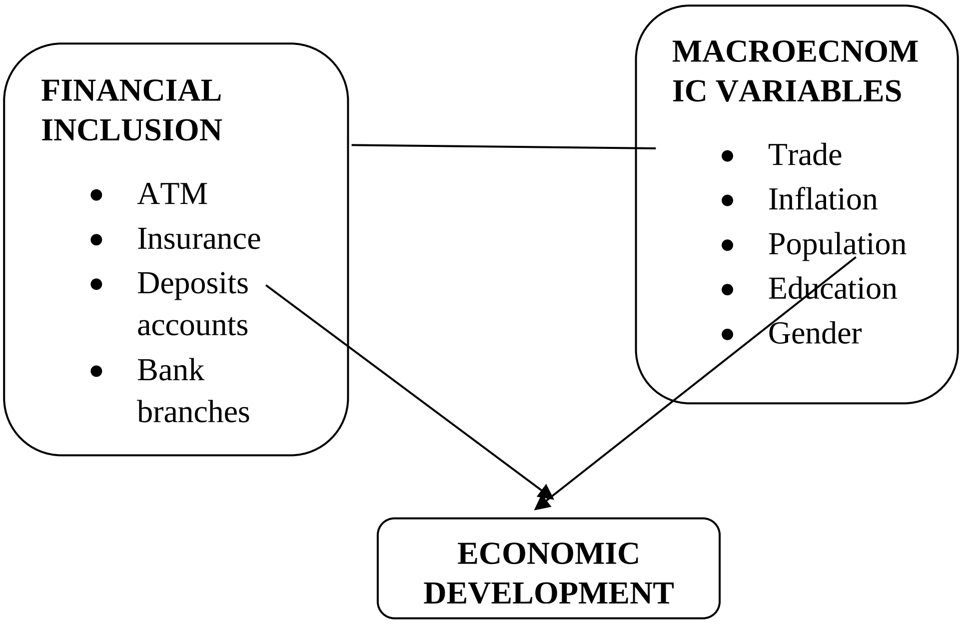
Objectives of Study

Following are the main objectives of the study:

1. To find the determinants of financial inclusion in Pakistan.
2. To econometrically determine the impact of financial inclusion on economic development of Pakistan.

II. LITERATURE REVIEW

Andrianaivo and Kpodar (2011), argued that financial inclusion has positive effect on the development of economy by bringing new financial products and services into the country and organizations. Many panel and individual studies were conducted by these workers and then come to the conclusion that financial inclusion is vital to the development as well as it provides well organized structure to the economy and variety of financial products to firms which helps the firms to raise the fund from the different resources and then invest this fund into further investments which not only effect the organizations revenue but also boost up the economy of that country overall. In this way the economy and growth of the country flourishes and removes the negative components from the country such as dependency of individuals, unemployment, inflation rate, debts from other countries, concept of brain drain etc because all the opportunities lies in their own country. They provided the model that economic growth can be the improvement of two components and their sub components. This model is given below'



Andrianaivo and Kpodar (2011), investigated 44 African countries to know the effect of financial inclusion in individual as well as in panel countries of Africa that how it effects separately and collectively, in both scenarios they found significant positive effect on the development. Furthermore, they also found that it not only effect development but also had positive strong effect on growth in many African countries.

Inoue and Hamori (2016), also conducted research in 37 different countries in 2004 to 2012, in order to know the impact of financial inclusion on growth. In their studies they also evaluated the positive impact on growth and development. They concluded their work by saying that all the branches of commercial banks can be the tool of measuring growth by considering the financial inclusion. And in these selected countries financial inclusion showed positive impact of financial inclusion on growth as well.

Kim et al. (2017), conducted study in 55 OIC countries from 1990 to 2013, in which they showed positive relation between growth and financial inclusion. According to them when countries had access to the financial inclusion then it brings more opportunities to increase their cash and cash resources, in this way it effects growth by direct way in any country. Moreover, they also found that financial inclusion is the basic for the financial development in any country whether they perform individually or in panel. European Union also supported the results of Kim et al. It was further evaluated that the effect of financial inclusion is stronger in high fragile countries as compared to low fragile countries.

Balach R et al. (2016), selected 97 countries from 2004 to 2012, in this study they considered two variables to know the effect of financial inclusion on economic development and growth. The two variables were commercial bank branches and automatic teller machines, for each variable they selected 100,000 respondents to judge. In this study they found that financial inclusion has positive effect on both the variables. They concluded their results that all the countries in panel behave positively and financial inclusion boost up the growth in any country. So if the countries want to move towards the way of financial strength then they had to involve in financial inclusion.

Ali et al (2020) econometrically checked the whether financial inclusion enhances economic growth in 45 Islamic Development Bank member countries. They used generalized method of moment, two stage least square, panel vector auto regressive and panel Granger Causality tests. On the basis of their results they finally suggested that financial inclusion has positive effect on economic growth in these countries.

Ababio et al(2019) empirically investigated effect of different levels of human development on financial inclusion in twenty countries for the period from 2005-2014.

Cyn et al. (2015), conducted study in south Asian countries, to check the relation between financial inclusion and economic development. In their study they selected macroeconomic variables and GDP as variable. According to them financial inclusion showed positive relation with economic development when all the SAARC countries utilize financial facilities and have proper access to the financial services.

Arestis et al. (2001), found negative relation between financial inclusion and economic development. As the inflation level and development level can vary from time to time, so it cannot be said that each and every economy will show positive relation to financial inclusion. The poor banking systems in some countries discourage credit provisions which effect financial system and economic growth by negative way.

Chakrabarty (2010), across the world wide there is no universal declaration about the financial inclusion and its relation with economic growth. Because each area and state had own opportunities and limitations such as geographical environment and financial environment. So it is impossible to say that financial inclusion always had positive or negative impact with financial growth in all the countries. Its nature of relation can be varying from time to time and place to place. Financial inclusion is the access of a country toward the financial products and services. If the country utilizes and manage these services and products efficiently then it showed positive relation with growth. On the other hand, if country is unable to manage and appreciate these products then it converts it to negative relation with economic growth and development.

III. RESEARCH METHODOLOGY

Financial Inclusion is a broader concept which holds three main dimensions namely, access, availability and usage. Other important aspect undertaken in the study is the economic development. Access denotes the ability to exercise accessible financial products & services from conventional organization. It provides an insight and analysis of latent barriers to opening & using of bank account such as cost, physical proximity of bank branches, etc. Availability is mentioned as the services which bank is providing. It includes services such as insurance, debit card loans, overdraft, Mobile money access, pass book, registered account on Mobile money banking etc. while usage is related to uniformity, frequency and length of time used. It focuses on the depth and extent of financial services or product. In this research study number of registered account active usages is considered as the usage. Economic development is measured through gross domestic product. Financial inclusion has a very crucial role in strengthening financial system of economy. Theoretical framework of study is given below:

After reviewing the previous literature this research would test, analyze and verify the following hypothesis:

a. Hypothesis

H_{1a}: Access significantly determines the financial inclusion.

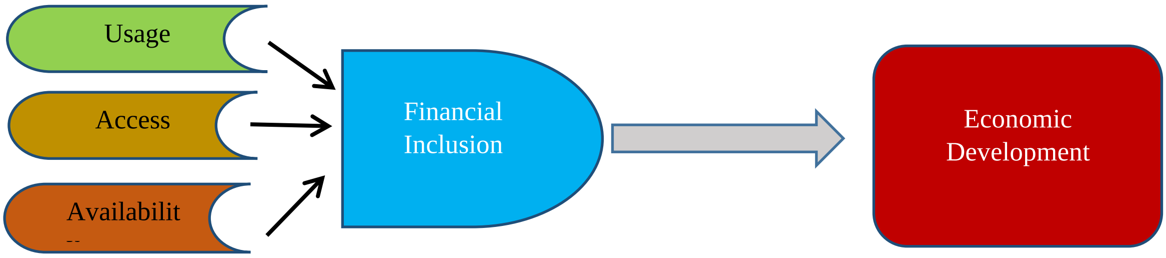
H_{1b}: Availability significantly determines the financial inclusion.

$H_{1}C$: Usage significantly determines the financial inclusion.

H_{2}: Financial inclusion has positive and significant impact on economic development.

b. Sources of data

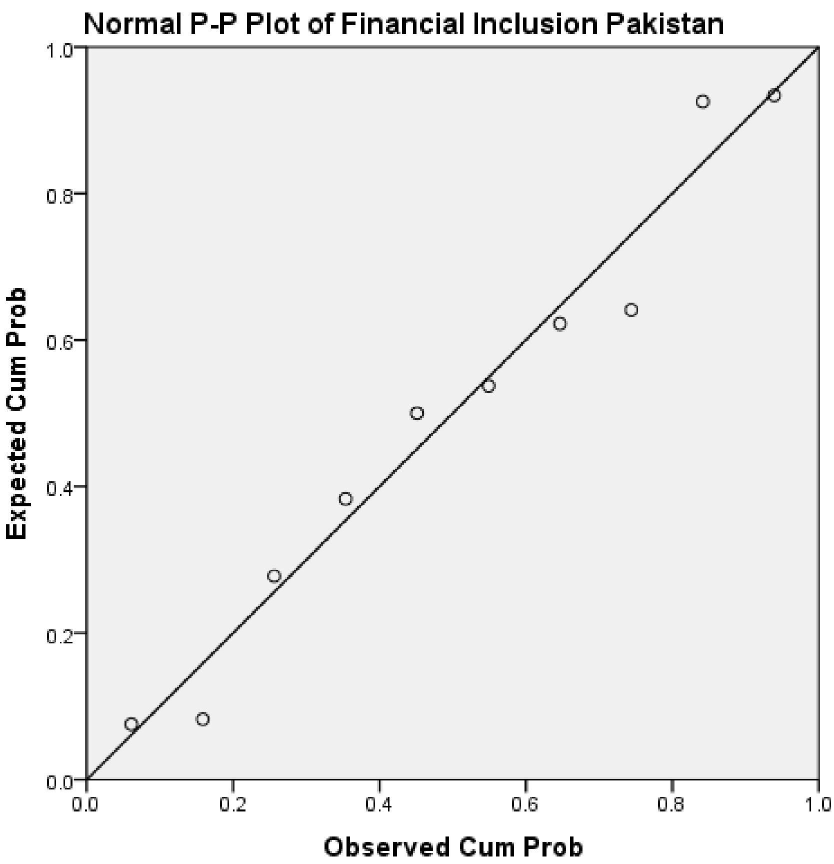
The study used secondary resources for collecting required information pertaining to research problem. Secondary data were taken from the website www.datafinder.com. Data available were collected through survey questions. The survey includes questions regarding Financial Inclusion, access, availability and usage of bank etc. The samples of the surveys cover the adult population of Pakistan, not the entire population. In most cases, this means samples cover individuals ages15 and above. The data of percent annual growth rate is taken from Asian Development Bank's Basic Statistics series and from State Bank of Pakistan year 2009 to 2018.



IV. DATA ANALYSIS

Before analyzing the data normality test was performed to check whether the data set was well defined by the normal distribution or not. Here through P-P plots normality was shown. The P-P plots gives the comparison of an empirical cumulative distribution function of a variable with a specific theoretical cumulative function. Here graphical description shows that the data is normally distributed.

Figure 1



Descriptive statistics were computed to describe the basic features of the data in study. As well as to show relationships between variable correlation was also calculated. The descriptive statistics and correlation about the understudied variables for Pakistan is given below:

Table 1 Descriptive Statistics

Dimensions	Mean	Median	Minimum	Maximum	Std. Deviation
Usage	0.1423	0.135	0.09	0.21	0.04455
Access	0.8029	0.8135	0.55	0.99	0.13833
Availability	0.8313	0.0803	0.01	0.98	0.05637
GDP	5.91	5.98	1.2	5.3	1.20277
Financial Inclusion	0.731	0.753	0.01	0.14	0.04601

Table 2 CORRELATION MEASUREMENT

PAKIATAN	USAGE	ACCESS	AVAILIBILTY	GDP	FINANCIAL INCLUSION
USAGE	1				
ACCESS	0.42	1			
AVAILIBILITY	0.571	0.58	1		
GDP	0.784	0.804	0.788	1	
FINANCIAL INCLUSION	0.363	0.826	0.970	0.862	1

Multicollinearity was also checked between all variables to eliminate high correlation. Table predicted that tolerance is greater than 0.10 and the variance inflation factor (VIF) is less than 10 in all cases, suggesting that multicollinearity is not present here.

Table 3 Multicollinearity Analysis

Dependent Variable	Independent Variables	Co-linearity statistics	
		Tolerance	**VIF**
Financial Inclusion	Usage	.151	5.708
	Access	.238	4.204
	Availability	.156	7.933

Structural Equation Model (SEM) was conducted by using AMOS (version 26.00) to assess fitness of structural model. SEM here is used as the alternate of multiple regression analysis. The model tried to find the impact of Financial Inclusion on Economic Development in Pakistan. In this study sample size is 10. As suggested 5 or 10 observation per estimated parameter by (Bentler& Chou, 1987; Bollen, 1989) and 10 case per variable (Nunnally, 1967). Before to test the model, the standardized loading estimates for the proposed structural model were estimated to ensure that it is free from problems (Hair et al, 2009). Full SEM model including all indicators were tested. CMIN (Contrast media induced Nephron pathy) value is between 1 and 2, CFI (Comparative fit index), NFI (Normal fit index), RMSEA (Root mean square error of approximation) are >0.9 and TLI (Tucker Lewis index) is close to 0.9. The proposed model revealed that the fit is good so there is no need to modify the model. The fit indices for the proposed models are presented in the table 5.

Table: 4 Fitness of the Structural Model

Model	CMIN/DF	CFI	NFI	TLI	RMSEA
Proposed Model	1.908	0.964	0.9333	0.880	0.917

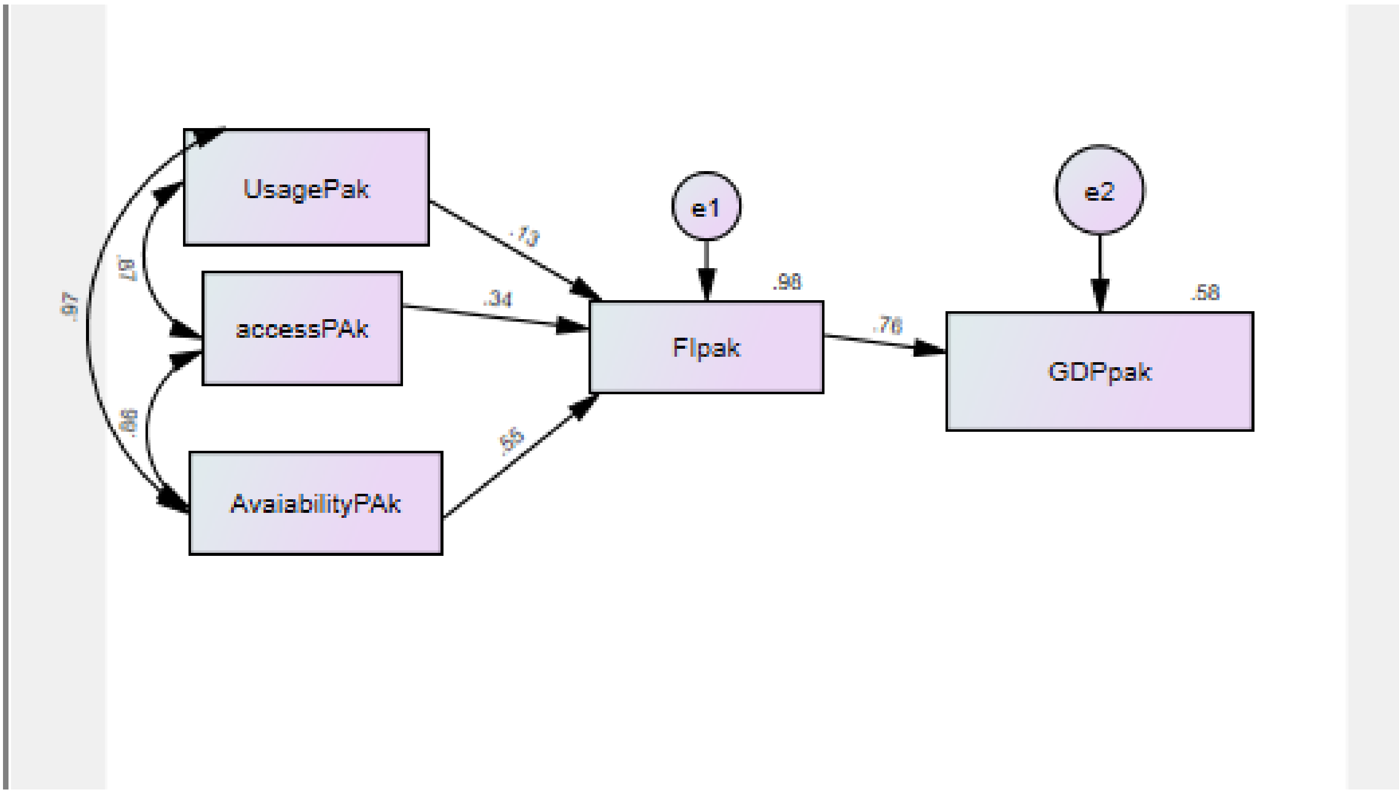


Table: 5 Results of the Hypothesis Testing

Hypotheses	CR	SRW	P-value	Accepted/ Rejected
H_{1a} Usage *significantly determines the financial inclusion.*	0.570	0.132	0.569	Rejected
H_{1b} Access *significantly determines the financial inclusion.*	3.151	0.347	0.002	Accepted
H_{1c} Availability *significantly determines the financial inclusion.*	2.500	0.553	0.012	Accepted
H_2 *Financial inclusion has positive and significant impact on economic development.*	3.528	0.762	0.000	Accepted

Financial Inclusion (FI) significant (SRW (Standardize regression weightage) = 0.76, p < 0.000) this proves that in Pakistan FI has most significant effect on economic development. Results revealed that access (SRW

= 0.34, p < 0.002) and availability SRW = 0.55, p < 0.012) are the significant determinants of financial inclusion while usage (SRW = 0.132, p < 0.569) is the insignificant determinant. So three hypotheses were accepted on the basis of results while one is rejected as shown in table.

V. CONCLUSION

The main attention area of this research paper is to examine the impact of financial inclusion on economic development of Pakistan. For this purpose, first find the determinants that can influence the financial inclusion and then examine the impact of financial inclusion on economic development. To avoid more labour and to give novelty to work SEM was used to analyze the data. In Pakistan, there is not substantial work on application of SEM. Normality test by using P-P plots also gave uniqueness to the work. SEM results proved that access and availability are the strongest determinants of financial inclusion and impact of financial inclusion was positive and significant on economy of Pakistan. This study can be helpful for financial institutions and business persons and can open new ways of research, especially to search financial inclusion in different ways in SAARC countries, African countries etc.

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