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# An Empirical Investigation of Financial Inclusion in Pakistan

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**Abstract:** Pakistan is one of the developing countries that has low financial inclusion. This paper examines the determinants of financial inclusion in Pakistan with two dimensions bank account and mobile money account. The data used in the analyses came from 6000 individual adults across Pakistan from Financial Inclusion Insight 2017 and included people of different ages, occupations, geographical locations, and genders. Using the multivariate logistic model, the determinants of financial inclusion were estimated. The results show that the age of individuals, employment, education, financial literacy, marriage, owning a smartphone, gender, getting money from the government and getting money from agriculture and livestock are the significant determinants for both bank accounts and mobile money accounts in Pakistan. If an individual is a man, financially literate, older, married, more educated, owning a smartphone, employed, getting money from the government and getting money from agriculture and livestock ha as a higher chances of being financially included as compared to an individual is a woman, less educated, younger, single and rural poor. The implication of this policy is that there is a need for the governments of Pakistan to formulate a holistic financial framework that seeks to mitigate the negative factors of financial inclusion and sustain the positive ones. It is recommended that such a policy framework should be politically neutral, economically viable, gender-sensitive, socially stable and financially feasible so as to make it sustainable.

Keywords: Financial Inclusion, Gender Financial Literacy, Mobile Money, Income

# **1.Introduction**

Pakistan being a developing country is facing low levels of financial inclusion. More than half of the population is not registered with any financial institutes, either formal or informal. Almost 47% are either using formal financial services or informal financial services, 23% and 24%, respectively; the rest of the 53% population had no access to financial services in 2015 (State Bank of Pakistan, 2015). Financial inclusion was identified as an enabling factor in 7 of the 17 sustainable goals. Financial inclusion in Pakistan lags behind other Asian countries. Only 14% of individuals have access to formal banks. Pakistan's financial inclusion index (FII) score

is only 12%, while other Asian countries such as Bangladesh, India, China, and Sri Lanka have scores of 32%, 48%, 42%, and 59%, respectively. In comparison, 46.4% of the South Asian population has bank accounts, while in Pakistan only 14% of adults have a bank account. Furthermore, only 4.8% of Pakistani females have bank accounts compared to 37.4% of South Asian females. Rural populations in Pakistan have ownership of accounts with banking and financial services at only 12.4%, while in South Asia, the figure is 43.5% (Zulfiqar et al., 2016). These statistics indicate that Pakistan lags far behind in financial inclusion as compared to other countries in South Asia. Immediate policy responses are needed to address this significant gap.

Pakistan has prioritized financial inclusion for its citizens long before many other countries. The government has been supporting the microfinance sector since the 1990s, and in 2001, it allowed the establishment of microfinance banks. Banks play a crucial role in providing financial services to everyone. In 2008, Pakistan introduced regulations for branchless banking, which resulted in a significant expansion of branch networks, ATMs, and credit facilities. However, there are still over 100 million adults in the country who do not have a bank account (Bold, 2011). Banks act as a financial intermediary, connecting investors who deposit money with borrowers who receive loans. Financial inclusion through banking sector can help to serve underserved. It is not possible to achieve the goals of economic growth without financially including the excluded population (Chakrabarty, 2010). There are two elements of the financial system that have been categorized. One is the formal financial system, while the other is the informal one. The financial institutes are offering formal services to individuals to meet their needs, as well as information services are also available for this purpose. Informal services are not under the supervision of a regulatory framework (Beck et al., 2007). In informal services, an individual can save his/her money and can transfer their savings to other individuals. Financial institutes offer savings, credit and insurance and other financial services, and some also supply the saving products by authorized regulations.

"Mobile money is the money transfer and payment services conducted via cell phone and A Mobile agent is an agent of the bank who will travel to various rural areas, generally on a rotational schedule, with a mobile banking device that allows them to offer a range of financial services to the rural population on a regular basis" (Ivatury & Mas, 2008). Mobile money and its agent can also help bank unbanked customers and help them understand and access banking with mobile banking applications. Pakistan is lagging far behind in achieving the financial inclusion target, especially in rural areas and among poor people. The study focuses on the factors of the demand side which affects financial inclusion so that we focus on these factors and take steps to enhance financial inclusion in Pakistan. The objective of the study is to:

- 1. To find out what factors affect financial inclusion.
- 2. To find out the determinants of financial inclusion through a Bank Account.
- 3. To find out the determinants of financial inclusion through a Mobile Money Account.

Financial inclusion has the potential to increase individual well-being as well as domestic well-being. Financial inclusion encourages small businesses, stimulates economic growth and creates job opportunities. It also assists the inefficient implementation of social strategies and development urgencies and priorities. Financial inclusion has the potential to increase individual well-being as well as domestic well-being. Financial inclusion encourages small businesses, stimulates economic growth and creates job opportunities. It also assists the inefficient implementation of social strategies and development urgencies and priorities. It also assists the inefficient implementation of social strategies and development urgencies and priorities. Thus, it is of sheer importance to investigate the factors that can stimulate financial inclusion.

#### 2. Literature review

"Financial Inclusion or inclusive financing is the delivery of financial services at affordable costs to sections of disadvantaged and low-income segments of society, in contrast to financial exclusion where those services are not available or affordable" (Rangarajan, 2008). Financial Inclusion Insight also stated financial inclusion as "Individuals who hold an account with an institution that provides a full suite of financial services and comes

under some form of government regulation" and "Mobile money (MM) as a service that allows a mobile phone to be used for storing and transferring money, and potentially accessing other financial services," (Ali et al., 2020). Financial inclusion is a tool that fosters opportunities that enhance the capacity to achieve the Sustainable Development Goals. Financial inclusion is a key enabler of social and economic empowerment (Barik, 2009). Financial inclusion could contribute to the country's development by requiring non-banked individuals to register with banks (Arputhamani & Prasannakumari 2011).

Capital market can play a vital in enhancing financial inclusion. Furthermore, financial institutions can play a critical role in improving financial inclusion which has been recognized domestically and internationally (Massey, 2010). Pakistan is one of those countries that took early steps to achieve the financial inclusion goals. In 2008, like some other countries, Pakistan, is one who has adopted branchless banking regulation. Which have 6000 retail outlets all over Pakistan. To take steps forward in Pakistan for financial inclusion Telenor's EasyPaisa is the first who has been inducted in the country. And then in years, branchless banking has raised to Mobilink JazzCash, Ufone Upaisa, Songs Paymax and UBL's Omni, which shows the unique and great implementation. Yet the financial inclusion is not satisfactory and we need to investigate the factors that affect the financial inclusion.

#### 2.1 Factors Affecting Financial Inclusion

Uddin et al. (2017) have found the financial inclusion determinants in the period from 2005 to 2014 in Bangladesh. They focused on both the demand and supply side to find out what the factors that affect financial inclusion. they used the quantile regression approach and generalized method for their study and found that age and literacy are the factors of the demand side. In Argentina, Tuesta et al. (2015) concluded that age, level of education and income are the factors that are significant from an individual perspective, whereas age and income are the factors that are the reasons for involuntary exclusion. In Nigeria, Abdu et al. (2015) investigated using The Global Index 2011 dataset to find the factors affecting financial inclusion. The author used the Binary Probit methodology. The study stated that young age, richness and level of education is significant to drive financial inclusion. The results also show that male households are more likely to be financially included than women that show the existence of the gender gap in Nigeria. A study Allen (2014) found that married, older, richer, employed, urban and educated people are more likely to own an account and save at financial institutes, but married, older, educated and richer are more likely to borrow from the formal financial institutes.

Devlin (2005) researched in the UK to find the determinants of financial services and he found that there are a different kind of financial services in the UK and selected variables show significance and consistency with all different financial services and the variables and the variables which shows significance with dependent variables are employment and income. It is argued that education is a way of measuring knowledge, skill sets, and capacity to make decisions, informal financial markets hence the positive relationship between financial inclusion and education. The results are supported by prior studies (Cole et al., 2011; Ellis & Lemma, 2010). Fungacova and Weill (2014) have conducted a study to investigate the financial inclusions determinants and levels in China based on the database of the Global Index since 2011. The findings have revealed that better education, higher income, being older and being a man are related to the increased use of formal credit and formal accounts in China.

Demirgüç-Kunt et al. (2018) revealed that gender is one factor that affects financial inclusion. Due to the difference in earnings between men and women, their behaviour towards financial decisions is also different. Due to a lack of knowledge and experience, women do not reply to financial services much. People's attention increases toward financial products when they get more literate about financial activities. With the help of financial literacy, people are able to make their financial decisions on their own keeping in mind the pros and cons of the financial products in the market. Financial literacy makes people more knowledgeable and skillful regarding taking decisions for financial products (Cole et al., 2011). In Bangladesh, Siddik et al. (2016)

investigated the factors of financial inclusion. The author used a multi-dimensional index to find out the results and he found that literacy rate and the rural population shows the significant effect on financial inclusion.

Economides & Jeziorski (2017) has researched about mobile money impact, role, and process in Tanzania. It indicates that the mobile money or telecom industry is boosting financial inclusion while the traditional banking system is less favorable than the online. Allen et al. (2014) carried out the study in Africa and found that the population density of Africa is extremely important for financial inclusion compared to any other place. He also stated that the expansion of mobile banking is a play a key role in increasing financial access. Mas & Kumar (2008) found critical demographic factors in their study such as age and education level. Moreover, stated that these factors play an essential role in the adoption of mobile money services. Capuano & Ramsay (2011) took twenty-four surveys in 11 developed countries and stated that education plays an important role in the adoption of mobile money services they further stated that uneducated people face more difficulties in using mobile money services as compared to educated people. They finally concluded that financial literacy is important for the individual while making any financial decision. According to Roy (2012) in India, the major portion of the rural populace is still out of the sphere of financial institutions. To get the said portion of the populace in the sphere of financial inclusion, banks have situated branches in rural areas of the state. India's quickest emerging economy has become possible by financial inclusion. Despite that, the bulk of the population of rural areas is out of the financial system sphere. In a study by Paramasivan (2011), Financial inclusion has been regarded as a groundbreaking concept resulting in the promotion of rural people's banking habits by alternate techniques.



Figure 1: Conceptual framework

# **3.Research Methodology**

This study has investigated the new factors that can affect financial inclusion in Pakistan by using financial inclusion data which was collected in 2017 from Wave 5 of financial inclusion insight, which is also the major contribution to the study. I also have added four significant variables to see the impact on financial inclusion. The new variables are 'getting money from the government', 'getting money from agriculture and livestock', 'smartphone' and 'rural poor'. I also use all the variables to see how it affects the mobile money account. The collection of the data is from the Financial Inclusion Insights (FII) Program fifth survey (5th wave) which was conducted in 2017 to analyze the level of financial inclusion in the country. But the program was started in 2013 in Pakistan with the collaboration of The Bill & Melinda Gates Foundation. The program focuses on eight countries in Africa and Asia to form knowledge about financial inclusion in the people. Nigeria, Bangladesh, Tanzania, Indonesia, Pakistan, India, Kenya and Uganda are the eight countries where the survey was conducted. Quantitative and qualitative research conducted by The Financial Inclusion Insights (FII) program analyzes the demand-side view of financial inclusion in the country. Thus, the survey delivers the

visions for the population involved in the digital financial services (DFS) sector. The data in the study was conducted from Sept. 3, 2017, to Oct. 30, 2017, in the Fifth survey (Wave 5). The survey was working on these indicators of financial inclusion and trends since 2013.

The representative population which is being targeted in the survey is aged 15+ and the Adult/individual must be residing in households. Both rural and urban population is covered in the survey, but in military bases and other restricted area, individuals are not included as a representative. The survey based on face-to-face interviews was conducted from sample of 6000 adults. A stratified multistage cluster sample is designed by InterMedia in teamwork with the Pakistan Institute of Public Opinion (PIPO). In Pakistan, financial inclusion is very low, which implies that the dependent variables estimating inclusion will have 1 as a rare phenomenon. Based on the study of Peduzzi et al. (1996), we have calculated the minimum sample size require for rare events.

Let p be the smallest of the proportions of negative or positive cases in the population and k the number of covariates (the number of independent variables). The minimum number of cases to include is:

$$N = 10 k / p$$

In this study, have 11 covariates to include in the model of bank account (Model 1) and the proportion of positive cases in the population is 0.12 (12.03%). The minimum number of cases required is

$$N = 10 \times 11 / 0.12 = 916.6$$

And I have 10 covariates to include in the model of Mobile money account (Model 2) and the proportion of positive cases in the population is 0.035 (3.5%). The minimum number of cases required is

$$N = 10 \ge 10 / 0.035 = 3333.33$$

According to Peduzzi et al. (1996) work, it is concluded that I have a sufficient sample size, which reduces the bias of a variable. We will see financial inclusion through bank account and mobile money account separately. One dependent variable for one model is "bank account", and the other dependent variable for the other model is "mobile money account". The variable description is shown in Table 1.

Table 1: Description of variables			
Variable NAME	Category	Variable explanation	
Dependant variables			
Bank account (Model 1)	Categorical variable	If an individual personally has a bank account that	
	1=Yes	is registered with his/her name?	
	0=No		
Mobile money account	Categorical variable	If an individual has mobile money account	
(Model 2)	1=Yes	registered with his/her name?	
	0=No		
Independent variables			
Age	Continuous variable	What is your age?	
Education	Categorical variable	What is your highest level of education?	
	1=no formal education		

	2= matriculation	
	3= diploma	
	4= undergraduate	
	5 = graduate	
	6= others	
Marital status	Categorical variable	What is your marital status?
	1=married	
	2=single	
Gender	Categorical variable	Is the respondent a male or a female?
Conder	1=male	is the respondent a male of a remain.
	2=female	
Income earner	Categorical variable	Are you an income earner in your household?
	1=ves	
	2=no	
Owwning a smartphone	Categorical variable	If an individual personally own a mobile phone?
	1=ves	
	2=no	
Getting money from	Categorical variable	If a person is receiving payments from the
government	1=ves	government that do not salary payments.
8	2=no	Benazir Income Support Program (BISP)
		Pakistan Bait ul Mal
		Zakat
		Employee Old-Age Benefits Institution (EOBI)
		Workers Welfare Fund
		Pension
Getting money from	Categorical variable	If a person is getting money from Selling products
agriculture and livestock	1=ves	of agriculture or rearing livestock in the past 12
6	2=no	months?
Residence area	Categorical variable	Where is the residence of the respondent?
	1= Urban	1
	2= Rural	
Financial literacy	Categorical variable	If a respondent has knowledge of financial services?
2	1=yes	
	2=no	
Rural poor	Categorical variable	If a respondent is earning below the \$2.50/day PPP
*	1=yes	poverty line and living in a rural area.
	2=no	

# Analytical technique

#### The post-double-selection methodology

One of the challenges that a researcher encounters is determining the correct set of controls to use. This can be a tricky decision as using too few or incorrect controls can lead to omitted variable bias while using too many can result in overfitting the model. In simple words, "The (post double selection) PDS methodology can be employed to select instruments as well as controls in instrumental variables estimation." The PDS methodology uses the lasso estimator to select the controls Angrist and Frandsen (2022). We have used STATA to employ this technique to select the control variables.

### The logistic model

Logit models, which are widely applied in econometrics, are part of binary classification models when the dependent variable is binary. These models, estimated using the maximum likelihood method, calculate the probability of people related to such a study group. Under these conditions, the endogenous variable is a binary response that takes values 0 or 1 only. The judgment to adopt financial services is based on the variable obscurity y\* which is determined by a set of exogenous variables included in the vector.

$$\theta(Y=k|X=X_{mi}) = logit\delta(X) = ln\left[\frac{\delta(X)}{1-\delta(X)}\right] = \beta_{0k} + \beta_{1k}x_{1i} + \beta_{2k}x_{2i} + \cdots + \beta_{nk}x_{ni}$$

Thus, 'Y' is defined as a vector for dependent variables whose results k and 'X' are independent variable vectors. The number of observations is given as 'I' and 'm' refers to the number of independent variables.

#### 4.Results

The sample size is 6000 respondents. The age of the respondents varies from 15-90 with mean of 35 years. The detailed frequency distribution is shown in Table 2.

Variables	Frequency distribution	Percentage
Education	No formal education	33.45%
	matriculation	52.33%
	Diploma	5.6%
	undergraduate	6.9%
	Graduate	1.3%
	Others	0.28%
Gender	Male	52.23%
	Female	47.76%
Marital status	Married	78.9%
	Single	21.08%
Employed	Yes	32.7%
	No	67.2%
Own Smart phone	Yes	15.53%
	No	81 16%
Financial literacy	Ves	17 21%
Financial itteracy	No	85 39%
Rural noor	Ves	41.6%
Kurur poor	No	58.4%
Residence Area	Rural	66 83%
	Urban	33 17%
Getting money government	Yes	4.9%
	No	95.1%
Getting money for	Yes	19.91%
agriculture and livestock	No	80.08%

	Table 2: Free	uency distribution of the varial	oles
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Table 3: Gender wise Frequend	y distribution of Bank account
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Variables	Gender		Total
Bank account	Male	Female	
No	2,624	2,654	5,278

Yes	510	212	722
Total	3,134	2,866	6,000

Overall, a smaller number of people have bank account as depicted in Table 3. Female have lesser number of bank accounts than males. The same pattern is seen for mobile money account depicted in Table 4.

Variables		Gender		Total
Mobile	Money	Female	Male	
Account				
No		2,858	2,932	5,790
Yes		8	202	210
Total		2,866	3,134	6,000

Table 4: Gender wise Frequency	distribution of mobile money account
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We can clearly see that the female has less penetration in both bank accounts and mobile money accounts. Females have fewer accounts in both bank accounts and mobile money accounts than males. Females in the country have less exposure to social activities which cause them away from financial activities.

# 4.1 The Post-Double-Selection Methodology

The variables are selected through *the post-double-selection* methodology. For the dependent variable bank account out of 10 variables, PDSLASSO has selected 9 variables. And for the dependent variable mobile money account out of 8 variables, PDSLASSO has selected all 8 variables.

# Table 4.3: post-double-selection methodology

Independent variables	Dependent variables				
	Bank account	t	Mobile money account		
	Coefficients	P values	Coefficients	P values	
Age	.0036626	0.000	0008236	0.028	
Education	.0876063	0.000	.007624	0.071	
Gender	.0412288	0.009	.0842257	0.000	
Marital status	0496053	0.002	0116519	0.273	
Employed	.0575717	0.000	0261432	0.013	
Own a phone	.1507915	0.000	.0675278	0.000	
Financial literacy	.0756077	0.000	.0456484	0.000	
Rural poor	0776137	0.000	0133744	0.096	
Residence Area	0098682	0.492			
Get money from government	.2074814	0.000	.0351715	0.058	
Get money agriculture an	d .0736204	0.000	.0469586	0.000	
livestock					

The above table shows the significance of variables. On the basis of these results the variables has been selected for the estimation.

#### Table 4.5: logistic regression

Independent variables	Dependent variables	
	Bank account	Mobile money account

		Odds ratio	P values	Odds ratio	P value
Age		1.029933	0.000	.9758206	0.008
Education	No Formal Educat	ion (Base)			
	Matriculation	1.572117	0.006	1.467261	0.166
	Diploma	3.8363	0.000	1.318992	0.448
	Undergraduate	7.562746	0.000	2.334908	0.010
	Graduate	7.685877	0.000	1.680204	0.334
	Others	2.345334	0.227	1.516396	0.700
Gender	Female (base)				
	Male	1.664615	0.001	18.50577	0.000
Marital status	Married (Base)				
	Single	.6076432	0.001	.764024	0.201
Income Earner	No (Base)				
	Yes	1.635213	0.000	.8298185	0.334
Own a smart phone	No (Base)				
	Yes	2.87704	0.000	2.781319	0.000
Financial literacy	No (Base)				
	Yes	1.852203	0.000	2.111935	0.000
Rural poor	No (Base)				
	Yes	.4327707	0.000	.710309	0.049
Residence area	Rural (Base)				
	Urban	.9479722	0.659		
Get money from the	No (Base)				
government	Yes	4.472785	0.000	2.122671	0.033
Get money for agriculture and	No (Base)				
livestock	Yes	1.882569	0.000	2.009246	0.000
Constant		.0120668	0.000	.0043678	0.000

It can be seen that there is a positive relationship between age and financial inclusion. The odds ratio of age are almost around, which shows no effect of age with bank account and mobile money account. As we know as people's age increases, they become more knowledgeable about the various financial products and services so they started using the financial services. Financial inclusion and age have significance and positive relation with each other so there are more chances of being financially included by the people when they become older (Tuesta et al., 2015). It can be seen that there is a positive relationship between education and financial inclusion. An individual who has done matriculation, diploma, under graduation, graduation and other education is more likelihood to have a bank account as compared to an individual who has no formal education. Education and financial inclusion have a significant relationship with each other. As the level of education increases individual's knowledge improves and make him able to take his financial decision (Zins & Weill, 2016).

The gender odds ratio can be defined as the odds of being financially included for males over odds of being financially included, for females. Male has more likelihood to have bank account and mobile money account as compared to an individual who is women. The results show that males are more dominant for being financially included as compared to females. This result resembles the findings of Demirgüç-Kunt et al. (2018). That woman does not have enough exposure in daily routine, they do not have enough knowledge about financial products and services and the gender gap is also a very challenging thing they are facing due to which they are less likely to be financially included. The marital status odds ratio can be defined as the odds of being financially included four singles over odds of being financially included for married. Married have more likelihood to have a bank account and mobile money account as compared to individuals who are not married. The results show that married people are more dominant for being financially included as compared to single people because of their daily needs and family support. As the married person has to support his family and meet his day to day needs so he needs financial support. Also, he made more saving and borrowing habits to meet his needs. (Soumare et al., 2016)

Furthermore, it can be seen in the table of results that income earner leads to financial inclusion. The income earner is a dummy variable that is statistically significant for financial inclusion. The income earner odds ratio can be defined as the odds of being financially included for income earner over the odds of being financially included for not income earner. Individuals who are income earners of a household are more likely to have a bank account, and Individuals who are income earners of a household are less likely to have a mobile money account as compared to Individuals who are not income earners of a household. The results show that if the person is employed or has a job, he is more likely to be financially included as compared to the people who are not working or have a job. The results indicate that when a person starts earning the obstacles of one being financially included is reduced. An individual who is employed and earning an income can have personal guarantees and collaterals which give him the opportunity to borrow easily from banks (Devlin, 2005). Owning a smartphone is a dummy variable that is statistically significant for financial inclusion. Owning a smartphone odds ratio can be defined as the odds of being financially included for owning a smartphone over odds of being financially included for not owning a smartphone. An individual who owns a smartphone is more likely to have a bank account and mobile money account as compared to the Individuals who do not own a smartphone. These results put insight into information communication technology that can help to boost financial inclusion. Because with the help of information communication technology (ICT) it is very easy nowadays to do banking while sitting at home and anywhere in your country or outside the country you can manage your accounts (Sarma, 2008).

A positive and significant relationship can be seen between financial literacy and financial inclusion in the table. Financial literacy odds ratio can be defined as the odds of being financially included for financially literate over the odds of being financially included for not financially literate. An individual who is financially literate is more likelihood to have a bank account and money account as compared to an individual who is not financially literate. People's attention increases toward financial products when they get more literate about financial activities. With the help of financial literacy, people are able to make their financial decisions on their own, keeping in mind the pros and cons of the financial products in the market. Financial literacy makes people more knowledgeable and skillful regarding taking decisions for financial products. Rural poor show a negative relationship with financial inclusion in our results. The rural poor odds ratio can be defined as the odds of being financially included for Rural poor over the odds of being financially included for the rural poor. An individual who is rural poor is less likely to be have a bank account and mobile money account as compared to an individual who is not rural poor (urban rich). This result reveals that people who are living in rural areas and if they are poor too, they cannot have access to financial services and products due to many reasons such as lack of money, distance, knowledge and access (Sriram & Sundaram, 2015). Getting money from the government odds ratio

can be defined as the odds of being financially included for getting money from the government over odds of being financially included for not getting money from the government. An individual who is getting money from government is more likelihood to have a bank account and mobile money account as compared to an individual who is getting money from government. If a person is getting money from the government in any of the forms such as a pension, Benazir income support for the secure means and on-time delivery of the money people use financial services.

Getting money from agriculture and livestock shows a positive and significant relation with financial inclusion. Get money from agriculture and livestock odds ratio can be defined as the odds of being financially included for getting money from agriculture and livestock over odds of being financially included for not getting money from agriculture and livestock. An individual who is getting money from agriculture and livestock. An individual who is getting money from agriculture and livestock. If a person is earning from agriculture and livestock and doing a business and working in this area, he must need the financial assistance for betterment in his corps and for expanding his livestock business for that he needs financial help. Hence, it leads to financial inclusion.

In simple words the results, findings show that, if an individual is a man, financially literate, older, married, more educated, owning a smartphone, employed, getting money from the government and getting money from agriculture and livestock has higher chances of being financially included as compared to an individual is a woman, less educated, younger, single and rural poor.

### **5.**Conclusion

Pakistan faces several problems to achieve the financial inclusion goals. People are unaware of the benefits of the financial system. Involuntary financial exclusion causes many consequences from which people are unaware, this goal can be achieved by providing financial education. Another highlighted problem is Access to the financial system, dispersion of the population and geography of the country is the reason for this problem. Access to the financial system can be a way out from financial exclusion, mobile banking schemes and mobile money have tackled this problem. Technology has minimized the problem of access to financial services; it has also lowered the banks and operational costs. With the help of the combination of technology and banking services has been covered the problem of access as well as the trust issue, some people do not trust banks, but since they interact with local shopkeepers (for mobile money services) instead of bankers it has overcome the trust issue too. Interaction with local shopkeepers makes it more comfortable and easier for many people. National Financial Inclusion Strategy NFIS 2020 has been approved by the government to boost the for Financial Inclusion, which includes the digital financial services DFS framework, the aim of this strategy is to ease access to financial services which will also do not require excessive cost for infrastructure investment. Mobile banking and mobile money accounts will cause a reduction in the cost of branch banking and productdelivery costs. Building a financial system that will be affordable and accessible is challenging and much needed in developing countries where financial inclusion is relatively low. Since it is a tool for the wellbeing of individuals and society, we find the need of studying determinants for financial inclusion. So that we can focus on those factors to achieve our goals.

This study illustrates the demographic and socioeconomic characteristics which are affecting the financial system. It uses the Fifth wave 2017 data from Financial Inclusion Insight to find out the factors affecting financial inclusion in Pakistan. This study has two models, one model which studies the factors affecting bank account and the other model which studies the factors affecting mobile money account as a representation of financial inclusion. The both of the dependent variables are binary outcome which lies between 0 and 1 so we employ Logit regression Considering the objective of the study, the study reveals the same results for both bank account and mobile money account. So that financial inclusion is driven by factors, age, education, male, married, employed, own a smartphone financial literacy, getting money from the government and getting money

from agriculture and livestock. Of these results if you are relatively older, man, married, employed, own a smartphone financial literate, getting money from the government and getting money from agriculture and livestock then you have more chances to be financially included. These variables have positive significance toward financial inclusion, which indicated that an increase in any of these variables significantly increases the level of financial inclusion in the country. On the other hand, female and rural poor are negatively significant toward financial inclusion; if you are female and rural poor then you have fewer chances to be financially included. This illustrates that increases in any of these variables significantly decreases the level of financial inclusion in the study that the gender gap and the residence of the individuals is the reason for not being financial included. As People lives in the backward area do not have access to many of the facilities including the financial services and awareness of the financial services and product which cause them not to get benefits from financial services and products. Additionally, females have low social exposure and do not have local business experiences caused them financial exclusion.

#### **5.2 Recommendations**

This study can be helpful for the Government of Pakistan and financial institutes to implicate policies to boost financial inclusion. The government of Pakistan and its development partners should implicate these policies for the financial framework to sustain the positive determinants and mitigate the negative ones. It is recommended that such a policy framework must be made that should financially feasible, gender-sensitive, politically neutral, socially stable and economically viable. Government should make such polices that can be beneficial for the rural and poor people. Also, government should focus on the areas where financial services are depriving. Moreover, government should make easy policies which are affordable and easily accessible for everyone so that everyone should get benefit from it. The government is facing a major challenge to transparently distribute subsidy grants to needy people directly. Opening of individual bank accounts is in dire need of time to assure that money is reaching the right hands, which are being selected under several schemes for needy rural people that can only be possible If an individual will be in possession of a bank account, Govt will distribute the grants directly in accounts of needy people instead of distribution via cash. Distribution of subsidies through formal bank accounts will be quicker, transparent and also will grow the financial inclusion.

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