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FINANCIAL INCLUSION AND ITS IMPLICATIONS FOR INCLUSIVE GROWTH IN PAKISTAN

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Abstract. Financial Inclusion is considered an important means to realize the goal of inclusive economic growth. Present study examines the state of financial inclusion and its significance for inclusive growth in Pakistan. Empirical analysis suggests that Pakistan lags behind other countries vis-à-vis financial inclusion. The study utilizes probit estimation technique to find out the determinants of financial inclusion in Pakistan. It also investigates the relationship between perceived barriers to financial inclusion and individual characteristics. Determinants of various sources of borrowing are also investigated. Education level, income and gender discrimination are found to be important determining factors of financial inclusion. The results suggest that lack of money and requisite formalities are significant barriers to access financial services. It emphasizes comprehensive & easy financial access to all segments of society to promote and enhance sustainable inclusive economic growth to benefit all.

Keywords: Financial Access, Financial Institutions, Financial inclusion, Inclusive growth, Inequality, Probit estimation

JEL classification: G28, O16, G21, O1, D63, C25

I. INTRODUCTION

Inclusive growth has become an important policy goal in most of the countries, particularly in developing Asia where remarkable economic

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growth is eclipsed by associated inequalities. It is focused on participation of individuals in growth process and emphasizes equitable access to various economic opportunities. There is growing evidence that financial inclusion leads to reduction in poverty and inequality and hence is vital for inclusive economic growth (see Beck et al.; 2004, Clarke et al. 2003). Clámara & Tuesta, (2014; pp.6) defined financial inclusion *"as the process by which access to and the use of formal financial services are maximized, whilst minimizing unintended barriers, perceived as such by those individuals who do not take part in the formal financial system*". International Monetary Fund (IMF) defined Financial Inclusion as the organized efforts aiming at the availability of financial services for everyone particularly for poor and deprived. Financial Inclusion primarily focuses on extending financial services to the poor and underprivileged and has recently gained tremendous attention due to its relevance for Inclusive growth which emphasizes equitable access to opportunities. In the words of Park & Mylenco (2015; pp. 1) "*One key ingredient of inclusive growth is an inclusive financial system that expands access to financial services to poor households. Access to finance enables the poor to protect themselves against adverse shocks and to balance their consumption and thus improve their welfare".*

Financial inclusion enables individuals to participate in the growth process by enhancing their access to economic opportunities and broadening their choices, which ultimately makes them more productive and efficient economic agents. It can lead to poverty reduction in two possible ways. Firstly, increased availability of financial resources enhances access to education, increased self-employment & human development which helps towards poverty alleviation. (see Banerjee & Newman, 1993; Galor & Zeira, 1993; Aghion & Bolton, 1997). Secondly broad based access to financial products and services leads to efficient resource allocation, thus providing better financial leverage to the underprivileged for poverty reduction. Lack of financial resources not only discourages economic growth but also leads to income inequalities. Kakwani and Pernia (2000) found that improved access to finances can lead to significant reduction in poverty and income disparity. Beck et al. (2004, p. 18) observed that "*In countries with developed financial intermediaries, the incomes of the poorest quintile grow faster than average GDP per capita, income inequality falls more rapidly, infant mortality reductions are larger and child enrolment in primary schools increase".* Moreover, income inequalities are more prevalent in economies where larger segment of population is denied access to financial services. Beck et al. (2004) concluded that if demand for financial services is not met through formal financial system it is automatically shifted to more

expensive informal sources. The poor and deprived are forced to borrow at much higher costs that deplete their income and thus they continue to be denied the accrued benefits.

An inclusive financial system helps socially omitted individuals to assimilate into the economy by creating opportunities for everyone (World Bank; 2008) and, thus, results in more equitable dispersal of growth benefits. Economic growth cannot be considered inclusive in a country if majority of the population is financially excluded having limited access to credit and other facilities. Chakraborty (2010) resolved that it is not possible to attain the goal of inclusive economic growth without active involvement of the excluded and marginalized. Thorat (2008, pp. 2) emphasized the role, financial inclusion can play in reducing poverty and inequality and in generation of productive employment in a country. It is stated that "*Financial inclusion means making financial services available to poor, giving them credit facilities that suit their needs and generate self-employment opportunities for them. Empirical evidence confirms that countries with a large proportion of their population excluded from financial system also show high poverty ratios and high inequality*." Many empirical studies have established the link between financial sector development, economic growth and reduction in poverty and inequality. Demirgue-Kunt et al. (2008), Johnston & Jonathen (2008) and Hanning & Jansen (2010) concluded that financial sector development promotes pro-poor and equitable economic growth.

Financial system in developed countries is more inclusive as compared to less developed countries. Kendall et al. (2010) found that 81% of adults living in developed countries have formal bank accounts as compared to only 28% in less developed countries. Empirical evidence suggests that half of the world's adult population is unbanked (see Chaia, et al. ;2009). This exclusion is more prominent in least developed countries of the world. The percentage of population having an account at a formal institution, savings at a formal institution, and borrowing from a formal institution are the three key indicators to assess the level of financial inclusion in any country. Demirgüç-Kunt. and Klapper (2013) concluded that seven countries namely India, China, Pakistan, Indonesia, Bangladesh, Vietnam and Philippines comprise almost 92% of the 1.5 billion unbanked people in Developing Asia.

South Asian economies though have a relatively higher saving rate (32%) but most individuals living in these countries save at informal sources. Overall in Asia, only 21% of adults save in financial institutions and about 300 million Asian adults keep their savings outside financial institutions

representing approximately half of the total world population that does so. The percentage of adults borrowing from a formal financial institution is the third important dimension of financial inclusion. A major amount of borrowing being done from informal sources indicates that the formal banking system is unable to meet the demand for credit services due to several reasons. In Asia, the adults availing credit facilities from formal financial institutions are only 38% as compared to 83% in high income countries. The level of borrowing[1] also varies among different countries due to different set of needs arising from diverse socio-economic conditions.

Pakistan has a very low level of financial Inclusion and it is one of the least financially inclusive countries in the world. A larger proportion of population is unbanked having no access to formal or informal financial services. Almost 53% of the population have no access and out of the remaining 47% only 23% are formally served and the remaining 24% depend on informal financial services[2].There are only 13% adults (ages 15+ years) who have an account at a formal financial institution as compared to 35% in India and 40% in Bangladesh[3]. Other indicators of financial inclusion also show a dismal picture.

In empirical literature, there are several studies which investigated the role of financial development in promoting economic growth, poverty alleviation and reducing income disparities in Pakistan. (see Shahbaz &Islam;2011, Shahbaz; 2010, Rahman et al.2008 Kashif &Khalil 2012). Raza et al. (2016) provided an overview of Financial Inclusion in Pakistan. However, none of these studies has focused the determinants of financial inclusion and perceived barriers to financial inclusion and their implications for inclusive growth in Pakistan. It is in this background that present study intends to make a comprehensive analysis of various extents of financial inclusion in relation to inclusive growth in Pakistan and filling the existing gaps in literature.

The specific objectives of the study are given below:

- To provide a comparative analysis of the state of financial inclusion in Pakistan.

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[1]Borrowing includes having a credit card or loan from a financial institution, store, employer, private lender, or friend as defined by Demirgüç-Kunt and Klapper. 2013.

[2] Source: Access to Finance Survey conducted by WB/DFID/SDC/PMN/SBP 2007--- 08.

[3] Source: The Little Data Book on Financial Inclusion (2015) from Global Financial Inclusion database.

- Exploring the determinants of the level of financial inclusion in Pakistan.
- Investigating the determinants of perceived barriers to financial Inclusion in Pakistan.
- Investigating the borrowers' behavior regarding choice of sources of borrowing and factors determining these choices.
- Exploring the linkages between financial inclusion and inclusive growth in Pakistan.

II. AN OVERVIEW OF FINANCIAL INCLUSION IN PAKISTAN

Pakistan has a very low level of financial inclusion where only 13% of adult population has access to formal bank accounts[4]. As per Honohan (2008) financial inclusion index[5](FII), Pakistan had a very low index score of just 12% as compared to 32% for Bangladesh, 48% for India, 42% for China and 59% for Sri Lanka. Table 1 summarizes financial inclusion indicators for Pakistan. The first indicator reveals that only 13% of adults have bank account in Pakistan as compared to overall 46.4% in South Asia and 42.7% in other lower middle income countries. Only 4.8 % of females in Pakistan have a bank account as compared to an average of 37.4% in South Asia. In Pakistan, only 11.2% of the poorest 40% have a bank account as compared to 38.1% in South Asia and 33.2% for lower middle income countries. If we look at financial access by rural population merely 12.4% have an account as compared to overall 43.5% in South Asia.

Only 2.9% of adults in Pakistan use debit cards in comparison to overall 18% in South Asia and 21.2% in lower middle income countries. Only 3.3% of Pakistani adults saved at a financial institution during previous year while the percentage of individuals saving at a saving club or person outside family is 11.4%. The percentage of adults saving at a financial institution in South Asia and the lower middle income countries is 12.7% and 14.8% respectively, however, saving at informal sources is greater in Pakistan in comparison to South Asia (8.8%) pointing towards the existence of large

[4] Country Paper – Pakistan UNESCAP First High-Level Follow-up Dialogue on Financing for Development in Asia and the Pacific 30-31st March 2016 Incheon, Republic of Korea.

[5] The estimates are constructed by combining information on banking and MFI account numbers (together with banking depth and GDP data) with estimates from household surveys for a smaller set of countries.

informal sector. Family or friends are a major source of borrowing and the percentage of Pakistani adults borrowing from informal sources (34%) is greater than both South Asia (31.4%) and average of lower middle income countries (33.1%). Only 1.5 percent of Pakistani adults borrowed from a formal financial institution as compared to 6.4% percent for overall South Asia. This shows Pakistan is lagging far behind other countries and South Asian region regarding various dimensions of financial inclusion. The gaps are enormous and require immediate policy responses.

TABLE: 1

Indicators of Financial Inclusion in Pakistan (A Comparative Analysis)

(Percentage of Population)

	Pakistan	South Asia	Lower MYC*
Bank Account (% age 15-Years +)			
All adult	13.0	46.4	42.7
Women	4.8	37.4	36.3
Adults belonging to the poorest 40%	11.2	38.1	33.2
Young Adults (% ages 15-24)	13.2	36.7	34.7
Adults living in rural areas	12.4	43.5	40.0
Access to Financial Institution Account (% age 15 +)			
Has debit card	2.9	18.0	21.2
ATM is the mean mode of withdrawal	…..	31.1	42.4
Use of account in the past year (% age 15 +)			
Used an account to receive wages	1.4	3.5	5.6
Used an account to receive government transfers	1.8	3.1	3.3
Used a financial institution to pay utility bills	0.4	2.7	3.1
Other digital payments in the past year (% age 15+)			
Used a debit card to make payments	1.0	8.5	9.6
Used a credit card to make payment	0.1	2.6	2.8
Domestic Remittances in the past year (% age 15+)			
Sent remittances	15.7	10.7	14.2
Received remittances	24.8	12.2	17.8
Saving in the past year (% age 15+)			
Saved at a financial institution	3.3	12.7	14.8
Saved in savings club or person outside family	11.4	8.8	12.4
Credit in the past year (% age 15+)			
Borrowed from a financial institution	1.5	6.4	7.5
Borrowed from a family or friend	34.0	31.4	33.1
Borrowed from an informal lender	5.3	10.9	8.5

Source: The Little Data Book on Financial Inclusion (2015) from Global Financial Inclusion database. * Lower MYC= Lower Middle Income Countries.

FINANCIAL ACCESS COMPONENTS IN PAKISTAN

Table 2 provides an insight about access and usage of financial services in Pakistan derived from 'The Access to finance Survey[6] conducted by State Bank of Pakistan.

TABLE 2

Financial Access Components in Pakistan[7]

Percentage of adult population that has	A2FS 2015(%)	A2FS 2008 (%)
A. Bank Accounts	16	11
B. Other Formal sources	7	1
Formally served (A+B)	23	12
C. Informally served	24	32
Financially served (A+B+C)	47	44
Financially excluded	53	56

More than half of the adult population in Pakistan is financially excluded having no access to formal or informal financial services. However, the number of individuals formally served as the percentage of population having access to formal financial services has increased from 12% in 2008 to 23% in 2015. The expansion in provision of formal financial services has led to decline in the percentage of population informally served. Despite a relatively higher percentage of population formally served the overall financial inclusion is still dismal as it increased merely by 3% from 2008 to 2015 with more than half of the population deprived of access to financial services.

To get further insight of the extent of financial exclusion table 3 provides information about financial inclusion (bank account ownership) across various demographic groups. The data highlights the gaps and disparities among various demographic groups regarding financial inclusion. Youth (ages 15-24) is the least financially encompassed age group as only 5% of them are financially included. Financial inclusion is higher for urban population as compared to people living in rural areas. If

[6] The Access to Finance Survey (A2FS) is a nationally representative demand side survey of more than 10,500 respondents launched by State Bank of Pakistan to assess the state of financial access and usage in the country.

[7] Same as 6

we look at gender, males have higher financial inclusion as compared to females. Education appears to be an important factor in determining financial inclusion of individuals as 15% of individuals having secondary or higher level of education are financially included as compared to just 3% for people with primary or less level of education. The percentage of employed persons who are financially included is almost three times higher than those who are unemployed. Similarly, 11% of people above poverty line are financially included as compared to 6% of those who are below poverty line.

TABLE 3

Financial Inclusion across Various Demographic Groups[8]

Demographic group		Financially included (%)	Financially excluded (%)
Age group	Youth (15-24)	5	95
	Middle Age (25-44)	11	89
	Older (45+)	9	91
Location	Rural	7	93
	Urban	12	88
Gender	Male	11	89
	Female	6	94
Poverty	Above poverty line[9]	11	89
	Below poverty line	6	94
Education	Primary or less	3	97
	Secondary or higher	15	85
Employment	Employed	13	87
	Unemployed	5	95

[8] Source: Financial Inclusion Insights Applied Research for digital financial inclusion. Pakistan FII survey wave 1 report (2015). The Financial Inclusion Insights (FII) program responds to the need identified by multiple stakeholders for timely, demand-side data and practical insights into digital financial services (DFS), including mobile money, and the potential for their expanded use among the poor. The FII team conducts regular survey and qualitative research in Kenya, Tanzania, Uganda, Nigeria, India, Pakistan, Bangladesh and Indonesia

[9] Poverty line is defined as living on less than $2.50 per day.

III. THE DATA AND METHODOLOGY

DATA

Data for this study is taken from Global Findex database (2014)[10] which provides wide-ranging information about various dimensions of financial Inclusion in 147 countries constituting 97% of the world's population. The survey sample covers at least 1000 people for each country, randomly chosen from the population over 15 years of age and is representative on a country level. The survey contains a comprehensive set of questions on various aspects of financial inclusion.

METHODOLOGY

To investigate the shaping factors and various determinants of perceived barriers to the process of financial inclusion several probit models[11] are estimated. Firstly, various socio-economic and geographic factors influencing individuals are investigated and secondly various perceived barriers to financial inclusion are examined. Probit models, extensively used for econometric investigation, are binary classification models where the dependent variable is binary. These models, estimated by Maximum Likelihood method, quantify the probability of an individual belonging to the group under study. Given that, the endogenous variable is a binary response that only takes the values 0 or 1. The decision to use financial services pivots on a concealed variable y* which is determined by a set of exogenous variables included in vector x', so that:

$$y_i^* = x_i'\beta + u_i$$

Where β is a row vector of parameters and x_i' is the column vector of the variables that affect y_i^* .u_i is a normally distributed error term with mean 0 and variance 1. The observable binary variable is related to y_i^* in the following way

Y= 1 if y_i^* > 0; and Y = 0 otherwise

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[10]The Global Findex database is freely available on the World Bank website:http://datatopics.worldbank.org/financialinclusion/.

For a detailed explanation of the Global Findex data base, see Demirgüç-Kunt & Klapper (2012)

[11] This model is adopted from "Clamara, N., Pena, X. and Tuesta, D. (2014)." And Tuesta,D. Sorensen,G. Haring,A. and Cámara, N. (2015) and amended as per the requirements of presents study.

There is a critical level y_i, so if y_i^* is greater than y_i then a household has a bank account. y_i is not observable either, and is assumed to be distributed normally with the same mean and variance. Hence it is possible to estimate the parameters of interest, β to obtain information on y_i^*.

$$P_i = P(y_i = 1|x') = P(y_i \leq y_i^*) = P(Z_i \leq \beta x_i') = F(\beta x_i') \quad (1)$$

$$F = \left(\frac{1}{\sqrt{2\pi}}\right)\int_{-\infty}^{\beta x_i'} e^{-z^2/2}\, dz$$

Where Z is a standard normal variable with mean 0 and variance σ^2 and cumulative distribution function of a normal variable. Present study estimates [1] by maximum likelihood as a series of Probit models for households to determine sources of financial inclusion and determinants of barriers to financial inclusion. The marginal effects on the covert variable are calculated from the different coefficients estimated in the models. Given that E $(y^* | x') = x'\beta$. The interpretation of these marginal effects is like those obtained in linear regression models, where the coefficient represents the change in the probability of using bank services when $x_j \in [x']$ change, all other things being equal.

IV. AN EMPIRICAL ANALYSIS OF THE DETERMINANTS OF FINANCIAL INCLUSION AND PERCEIVED BARRIERS TO FINANCIAL INCLUSION IN PAKISTAN

EMPIRICAL RESULTS

The following section summarize the findings of various models estimated. The tables provide only values of marginal effects based on these models.

DETERMINANTS OF FINANCIAL INCLUSION

The present section investigates the determinants of financial inclusion in Pakistan. All the three main indicators are assessed to clearly figure out the bottlenecks. Following model is estimated using the probit estimation technique[12]

$$FI_i = \alpha + \beta^* INC_i + \gamma^* EDU_i + \delta^* AGE_i + \eta^* GEN_i + \varepsilon_i \quad (2)$$

[12] This model is adopted from "Zuzana and Weill (2014), "Understanding Financial Inclusion in China" Working paper 2014-06

In equation (2) FI represents financial inclusion and *i* is the index for individuals. There are four explanatory variables based on the information provided in the survey namely Income (INC), education (EDU), age (AGE) and gender (GEN). Individual incomes are divided into five quintiles from first quintile (poorest 20%) to the fifth (richest 20%). And a dummy of 1 is assigned if individual income falls in that quintile. However later in estimations dummy for one of the quintiles is omitted to avoid dummy variable trap[13]. Two dummy variables are used for education, which is equal to 1 if the individual has secondary or tertiary education. Age is measured in number of years. Age^2 is also added to the model for estimation to consider possible nonlinearity between age and financial inclusion. This practice is in line with various previous studies (see for example Tuesta et al., 2015; Clamara et al., 2014; and Zuzana and Weill, 2014). For gender, we use a dummy of 1 if the individual is a female and vice versa. Table 4 provides information about variables, attached dummies and descriptive statistics of the variables used in the model.

Table: 4

Description of Variables and Descriptive Statistics

	Definition	Observations	Mean	Standard Deviation
Female	1= if female 0=otherwise	1000	0.500	0.5002
Age	Age in number of years	1000	35.05	14.310
Income (poorest 20%)	=1 if the individual has income in first quintile and =0 otherwise	1000	0.169	0.3749
Income (second 20%)	=1 if the individual has income in second quintile and =0 otherwise	1000	0.186	0.3893
Income (Third 20%)	=1 if the individual has income in third quintile and =0 otherwise	1000	0.209	0.4067
Income (Fourth 20%)	=1 if the individual has income in fourth quintile and =0 otherwise	1000	0.214	0.4103

[13]The issue of Dummy Variable trap arises in a model if independent variables are highly correlated or multicollinear and one variable can be predicted from the others. The solution to the problem is to drop one of the categorical variables.

	Definition	Observations	Mean	Standard Deviation
Income (richest 20%)	=1 if the individual has income in fifth quintile and =0 otherwise	1000	0.218	0.4136
Secondary education	=1 if secondary education =0 otherwise	1000	0.239	0.4266
Tertiary education	=1 if tertiary education =0 otherwise	1000	0.065	0.2466

Source: Calculated by the authors.

DETERMINANTS OF FINANCIAL INCLUSION IN PAKISTAN

Probit estimations (Marginal effects) of equation (2) to investigate the determinants of financial inclusion indicators are summarized in table 5. Each model is based on a different indicator of financial inclusion. In Model 1 Account at a formal financial institution[14] is taken as the dependent variable, while in second and third models saving at a formal financial institution[15] and borrowing, are taken as dependent variables respectively. Following is an analysis/description of the results.

GENDER DISCRIMINATION

Empirical results suggest that being a female is an obstacle in availing and utilizing various financial services. For example, females are 9% less likely to have an account at formal financial institutions, 6% less likely to save at a formal financial institution and 2% less likely to borrow money from a formal financial institution. The negative and significant coefficients for all the three indicators of financial inclusion suggest the existence of gender gap in availing formal financial services.

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[14] *This measure of financial inclusion is based on the survey question which inquires respondents "Do you currently have an account at a formal financial institution?"*

[15] *This is based on the question about saving behaviour of individuals which asks "Have you saved or set aside money in a bank account in the past twelve months?"*

Table: 5

Determinants of Financial Inclusion

Quintile/ Group	Account at a formal financial institution	Saved at a formal financial institution	Borrowed money from a formal financial institution
Female	-.098932* (.019485)	-.064829* (.219106)	-.020978*** (.001156)
Age	.016360* (.003708)	.006545* (.003087)	.001577** (.000925)
Age^2	-.000171* (.000044)	-.000030* (.000015)	-.000114 (.000063)
Secondary	.110089* (.020433)	.075781* (.020847)	.009734* (.004928)
Tertiary	.186441* (.027926)	.0433824* (.017585)	.012423* (.005883)
Quintile2	-.077163** (.032811)	-.024447 (.031716)	-.007279 (.017917)
Quintile 3	-.006948** (.003163)	-.028013 (.028895)	-.021489 (.016832)
Quintile 4	-.005709** (.003092)	-.017224 (.030169)	-.017513 (.171953)
Quintile 5	-.003554 (.031338)	-.053505*** (.031830)	-.016589 (.021724)
No. of obv.	997	109[16]	994
Pseudo R^2	0.1784	0.0260	0.0464
Log Likelihood	-272.18301	-25.38854	-139.64817

***, **and* denote significance at 90%, 95% and 99%, respectively.Standard errors are reported in parentheses.

These findings are in line with Demieguc-Kunt et al (2013) and Zuzana and Weill (2014), who concluded the existence of statistically significant gender gap in account ownership, borrowing and saving activities in all regions of the world. In Pakistan, it can be attributed to lack of regular incomes, poverty, male domination in financial decision making and limited branches of financial institutions particularly in rural areas.

World fact book[17] (2013) suggested that cultural and religious norms and institutional factors are mainly responsible for exclusion of females from

[16] This indicator is based on inquiry about savings so the number of respondents is low because it includes only those individuals who saved during last year.

financial sector. West & Lahren (2016, pp.11) observed that "*lack of mobility, unemployment, banking regulations, lack of collateral, lack of financial literacy, discrimination, lack of access to mobile phones and self-exclusion"* are the chief blockades in accessing financial institutions for females in Pakistan. FII survey wave 1 report (2015, pp.12) concluded that "*Gender gaps in formal banking are relatively similar in urban/rural populations and at different poverty levels and males are three times as likely to have bank accounts across different geographic and socioeconomic segments" in Pakistan.*

AGE GROUP

The results show that older people use more financial services in Pakistan however relatively smaller coefficients on the variable show lesser influence as compared to gender. It can be attributed to having stable incomes after a certain age and the intention to save for old age needs, for marriage expenditures and other expenditures on children and their education etc. These results are supported by previous studies like Demirguc-Kunt et al. (2013), Zuzana and Weill (2014) and Tuesta et al. (2015).

AGE^2

All the coefficients on age^2 are negative and significant showing the existence of a nonlinear relationship between age and financial inclusion indicators.

EDUCATION LEVEL

The results suggest that probability of being financially included increases with an increase in education level of an individual. Both Secondary and tertiary education have positive association with ownership of account at formal institution. A person with secondary education has 11% higher probability of having a bank account and with tertiary education this probability increases to 18%. A higher Level of education increases the possibility of saving or borrowing from a financial institution as well, for example secondary education increases the probability of saving at a formal financial institution by 7%. In case of borrowing from a financial institution, coefficient on both education levels are significant but low in magnitude. Pakistan has wide gender gaps in education and lower level of education among females keep them restricted from accessing financial markets. Demirguc-Kunt & Klapper (2012) and Zuzana & Weill (2013) observed that

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[17] The world factbook is a reference resource produced by the Central Intelligence Agency with almanac -style information about the countries of the world.

females are financially excluded due to lack of financial literacy and male dominance.

INCOME LEVEL

Income is another important determinant of having an account at a formal institution. Coefficients for all the (dummy variables) income quintiles are negative and significant except for quintile 5 where it is negative but insignificant. The coefficients for lower income quintiles have larger coefficients implying that having a low-income level reduces the probability of having an account at a formal financial institution. The probability of not having a bank account for people in quintile 2 is 7% as compared to 0.05% for individuals having incomes in quintile 4. These findings are supported by many previous studies like Demirguc-Kunt & Klapper (2012) and Zuzana & Weill (2013) Income level however, is not a significant determinant of saving or borrowing from a formal financial institution in Pakistan as most of the coefficients are insignificant. It is observed that in Pakistan 25.5% individuals in highest income quintile have access to financial services as compared to just 3.8 % for people in lowest income quintile. On the basis of these findings it can be concluded that gender, education level of an individual and income are important determinants of financial inclusion in Pakistan.

DETERMINANTS OF PERCEIVED BARRIERS TO FINANCIAL INCLUSION

This section explores the determinants of perceived barriers to financial inclusion in Pakistan. The analysis is based on the examination of seven main factors behind involuntary financial exclusion for which data is available. The results of Probit estimations reviewing these barriers are summarized in table 6 and help to understand that how the bearing of these obstacles changes across various demographic groups and income levels.

The geographical distance/proximity play a significant role in access to or denial of financial services. A convenient and close by availability of a financial institution is vital for availing financial services whereas far off location could be a disincentive for aspiring clients. This is particularly true for female population as their mobility is severally hampered due to lack of infrastructure and social taboos in free movement. The aged population of country also falls in the same category and are reluctant to undertake long journeys to avail financial services. The results suggest that females are 9% more likely to perceive distance as a barrier while old people are 10% more likely to perceive distance as a barrier as compared to young people.

However, these findings are specific to Pakistan, as in the countries having high female employment and enhanced access to transportation facilities, distance might not be an obstacle. (see: Tuesta et al;2015, Clamara et al ;2014 and Zuzana &Weill; 2014).

Financial institutions usually require hefty documentation for opening bank accounts or offering credit facilities which is considered as a significant barrier in availing financial services by certain demographic groups. Low literacy rates and communication problems, both oral & written keep people shy of predominantly English oriented corporate bodies. Estimates suggest that females are 12% more likely to perceive burdensome documents as a psychological and physical barrier. Another important factor is lack of trust in financial institutions which primarily arises due to lack of information and financial illiteracy. Potential clients are generally circumspect of the procedural labyrinths and hidden motives of the financial institutions while offering their services. This trust deficit effectively impedes smooth flow of vial capital to kick start economic activity. The strong religious beliefs and deep rooted aversion to interest based transactions has kept a large segment of society away from financial services & products. People with such preoccupation would neither lend nor borrow from any financial institution thus shutting all avenues of availing any financial services. The analysis suggests that these factors are relatively more important for females in Pakistan who are 8% percent more likely to be hindered by lack of trust and 9% more likely to be stalled by religious reasons as compared to males.

There is a common feeling amongst people that they can avail financial services only if they have money and resources at their disposal. Different demographic groups perceive lack of money as a barrier to banking. Females are 11% more likely to perceive lack of money as a barrier in accessing financial services. People falling in lower income quintiles (quintile 1 & 2) are 30% more likely to consider lack of money as a barrier to financial inclusion. Interestingly this exclusion is not age specific and is rather prevalent in almost all age groups.

The declared & hidden costs of banking have also played a significant role in discouraging people from availing financial services. The higher lending rates and costs of account maintenance etc. have led people to believe that financial products are too expensive to be viable. Empirical analysis views this perception as an important psychological & physical barrier particularly for individuals falling in lower income quintiles. For example, individuals belonging to income group quintile 1 are 10% more likely to consider it a barrier in Pakistan. However, cost of having a bank

account or being too expensive is not a significant perceived barrier for other demographic groups.

The general segregation of roles & duties in a family has also led to fewer people enjoying financial services in Pakistan. There is a common perception that one family member`s account is good for the whole family. This is particularly true for male dominant households where financial decision making is controlled by male head of the family. The last column shows how an individual`s bank account is affected if another family member already has an account at a financial institution. At least 8% females consider that owning of account by another family member is a barrier to their account ownership. This is an important perceived barrier for individuals in various income bracket groups as well. For example, the poorest 40% are 28% more likely to consider it a barrier to account ownership as compared to only 8% for individuals in quintile 4. Nenova et al. (2009) concluded that heavy documentation, lack of money and lack of information are the main obstacles to financial inclusion in Pakistan.

Table: 6

Determinants of Barriers to Financial Inclusion in Pakistan[18]

Individual Characteristics	Too Far Away (TOF)	Lack of documentation (LOD)	Religious Reasons (RR)	Lack of Trust (LOT)	Lack of Money (LOM)	Too Expensive (TOE)	Family member has an account (FMA)
Female	-.097207*	-.122294*	-.091139**	-.081395***	.110858*	.019006	.087275*
	(.043521)	(.025798)	(.047923)	(.045936)	(.029891)	(.026765)	(.022346)
Age	.010250***	-.008207*	.001720	.001360	-.005469	.004969	.0026155
	(.005928)	(.004244)	(.003759)	(.003827)	(.005089)	(.004435)	(.003936)
Age^2	-.000124***	.000061	-.000035	-.000029	.000090	-.000066	-.000044
	(.000072)	(.000052)	(.000049)	(.000050)	(.000062)	(.000053)	(.000048)
Secondary	.017038	-.025106	.048880	.044234	-.027688	-.028285	.070395*
	(.032831)	(.031101)	(.032556)	(.032365)	(.034901)	(.033593)	(.025163)
Tertiary	.075022	-.016729	.048477	.057691	-.112500*	-.054380	.013322
	(.062004)	(.058584)	(.047109)	(.051221)	(.057299)	(.057495)	(.049442)
Quintile1	.875489	-.305508	.486163	.485770	.237518*	-.105689*	-.144130*
	(34.3175)	(.214261)	(22.4964)	(23.4199)	(.110947)	(.045896)	(.035539)

[18] Dependent variables are mentioned at the top of each column.

Individual Characteristics	Too Far Away (TOF)	Lack of documentation (LOD)	Religious Reasons (RR)	Lack of Trust (LOT)	Lack of Money (LOM)	Too Expensive (TOE)	Family member has an account (FMA)
Quintile2	.838875 (34.3306)	-.350079 (.214580)	.429155 (22.5236)	.505363 (23.4100)	.254817* (.113937)	-.083785* (.042345)	-.140881* (.035304)
Quintile3	.827418 (34.3346)	-.323728 (.214206)	.490605 (22.4942)	.470045 (23.4278)	.221362* (.114922)	-.040995 (.039734)	-.126491* (.032020)
Quintile4	.868363 (34.3201)	-.320760 (.214275)	.458167 (22.5097)	.499294 (23.4131)	.184623*** (.116739)	-.055755 (.040342)	-.082442* (.029818)
No. of obs.	809	805	813	784	997	787	849
Pseudo R^2	.0329	.0564	.0700	.0542	.0261	.0212	.0859
Log-likelihood	-354.3157	-334.2834	-253.2571	-244.2901	-382.7977	-335.5492	-299.2092

***, **and* denote significance at 90%, 95% and 99% , respectively. Standard errors are in parentheses.

SOURCES OF BORROWING

Equitable and timely access to credit facilities is a vital element of financial inclusion. In Pakistan, more than half of the population is financially excluded having no access to finances. Only 23 percent of the population has access to formal financial services and at least 24 percent are served by informal financial sources which are not only expensive but also involve a lot of discrimination. This section presents an analysis of how individual characteristics like gender, age, education level and income are related to various sources of borrowing.

TABLE 7

Individual Characteristics and Sources of Borrowing

	Borrowing from the Store (SB)	Borrowing from Family or friends (FFB)	Borrowing from Employer(EB)	Borrowing from private lender (PB)
Female	-0.058102* (0.02955)	-0.062701* (0.027828)	-0.067185* (0.017255)	0.018452** (0.010260)
Age	0.0047539 (0.003521)	0.091502* (0.004654)	0.002388 (0.002851)	0.0000827 (0.001733)
Age^2	-0.000053 (0.000042)	-0.000102** (0.000056)	-0.0000441 (0.000036)	-0.000068 (0.000020)
Secondary	-0.048218** (0.026023)	-0.063156 (0.033727)	-0.077409* (0.024044)	-0.006146 (0.127516)

	Borrowing from the Store (SB)	Borrowing from Family or friends (FFB)	Borrowing from Employer(EB)	Borrowing from private lender (PB)
Tertiary	-0.093560** ((0.049215)	-0.136554* (0.062392)	-0.066344*** (0.039738)	0.001937 (0.019327)
Quintile1	0.029762 (0.034706)	-0.051356 (0.044662)	-0.017657 (0.023634)	-0.001485 (0.188916)
Quintile2	0.052988*** (0.033210)	-0.027937 (0.043047)	-0.035861 (0.023790))	0.012064 (0.017095)
Quintile3	-0.0286588 (0.036624)	-0.093282* (0.044578)	-0.050899* (0.025338)	0.007654 (0.017292)
Quintile4	0.033463 (0.034312)	-0.071520*** (0.0442362	-0.070730* (0.027201)	0.148579 (0.0164231)
No. of observations	989	979	981	976
Pseudo R^2	0.0328	0.0210	0.0798	0.0080
Log Likelihood	-345.7736	-525.9551	-220.1275	-111.7348

***, **and* denote significance at 90%, 95% and 99%, respectively. Standard errors are in parentheses.

Table 7 summarizes the results of probit estimations (Marginal effects) based on four different models to explain the determinants of sources of borrowing in Pakistan. The dependent variable for each model is mentioned at the top of each column. Independent variables in each model are gender, age, Age^2, secondary education, tertiary education and various income quintiles. The analysis exhibits that how various demographic characteristics can impact the individual decision regarding borrowing from various sources. Females as compared to males have a lower probability of borrowing from various sources. The probability of borrowing from a store reduces by 5%, borrowing from a family or friend by reduces 6% and probability of borrowing from the employer reduces by 7% for females. Age does not appear to play a significant role about the choice of source of borrowing except the case of borrowing from a friend or family. The probability of borrowing from a friend or family increase by 9% with increase in age. This might be due to more trust in relatives and friends and less information about formal sources. Negative coefficients on Age^2 point towards the existence of non-linear relationship with all dependent variables.

The estimation results reveal that education level of an individual plays a role in making a choice about the borrowing source. Both secondary and tertiary education reduce the probability of borrowing from various sources. Secondary education reduces the probability of borrowing from a store by

4%, probability of borrowing from family or friends by 6% and probability of borrowing from the employer by around 8%. Tertiary education reduces the probability of borrowing even more as probability of borrowing from a store reduces by 9%, probability of borrowing from family or friends reduces by 13% and that of borrowing from an employer reduces by 7%. Education level however does not seem to influence borrowing from the private borrowers. In the previous section, it was found that an increase in education level increases the probability of borrowing from a formal financial institution. If both the findings are analyzed together it can be concluded that more educated individuals like to borrow money from formal sources instead of informal sources like a store, family or friends and an employer.

For the poorest 40% of people income does not influence their source of borrowing as all the regression coefficients are insignificant. The probability of borrowing from a store increases by 5% for individuals in income quintile 3 but the relationship is insignificant for all other borrowing sources. The probability of borrowing from family and friends and form the employer increases for individuals in higher income quintiles. People in higher income quintiles are found to prefer borrowing from family/friends or from the employer instead of borrowing from a store or a private lender. An important observation by Nenova et al. (2009) is that in Pakistan individuals are strongly averse to certain types of debt/ borrowing. It is observed that one third of the adult population has taken a loan but only one out 14 obtained it from a formal source. It was also found that approximately half of the population has never borrowed money. The study suggested the prevalence debt aversion and partiality against borrowing across various demographic groups and income brackets. Another important remark about motives and sources of borrowing is that people mostly borrow to even out their personal consumption and choose to borrow from family/friends or stores where no interest costs are involved. The analysis suggested that in case of Pakistan gender, education and income level affect the source of borrowing of individuals.

Individuals seem to have some psychological repugnance towards borrowing from all the sources particularly from formal sources due to various reasons. This requires an in-depth analysis of the socio-cultural factors behind this phenomenon. However besides socio-cultural factors it can be attributed to certain behavioral biases on part of individuals as explained by Kahneman and Tversky (1979). There might exist cognitive biases as well due to framing and loss aversion. This calls for the need of further research into the issue to explore the psychological perceptions acting

as barriers for individuals for being too risk averse due to certain biases and beliefs.

V. FINANCIAL INCLUSION AND IMPLICATIONS FOR INCLUSIVE GROWTH IN PAKISTAN

Ramos et al (2013) suggested two related dimensions i.e. Benefit sharing and participation which are the focus of inclusive growth. Financial inclusion is a necessary condition for both. Pakistan has a very low level of financial inclusion implying that a major part of population has either no or very little access to finances which hinders their participation in growth process. This lack of financial inclusion is an indicator of the fact that economic growth is not inclusive in Pakistan. Lagarde (2014)[19] related financial inclusion to empowerment and suggested that access to credit enables individuals to participate in economic activity. The analysis termed financial inclusion as the most powerful source of inclusive growth which enhances the participation of poor and deprived in growth process and broaden their access to opportunities. It initially empowers the marginalized and deprived and later leads to growth and development of whole economy. Thus, financial inclusion can enhance the level of inclusiveness in a country by enhancing benefit-sharing and participation, which are two main ingredients of inclusive growth. In the current section state of financial inclusion in Pakistan is evaluated in relation to these dimensions.

FINANCIAL INCLUSION AND BENEFIT SHARING IN PAKISTAN

Benefit sharing dimension of inclusive growth is appraised by observing its impact on poverty and income inequality in a country. Provision of equitable, timely and affordable financial services can help individuals to come out of poverty and enhance their capabilities. Although in existing literature there are no such studies which specifically focus on impact of financial inclusion on benefit sharing but there are many studies which investigate impact of financial sector development, financial depth and access to credit on the components of benefit sharing (poverty reduction and income distribution).

There are many existing studies which conclude that increased and equitable access to finance plays a vital role in reducing poverty and inequalities. (see Li et al. ;1997, Mellor,1999; Jalilian & Kirkpatrick, 2002,2005; Dollar & Kraay; 2002, Honohan; 2008, Jeanneney & Kpodar;

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[19] *Address to the International Forum for Financial Inclusion By Christine Lagarde Managing Director, International Monetary Fund Mexico, June 26, 2014*

2008). Honohan and Beck (2007) found that financial depth leads to poverty reduction more than income growth does. Hence there are more chances of poverty reduction in an economy with greater financial depth. In other words, the linkages among poverty reduction and financial depth are stronger than linkages among poverty reduction and income growth. Shahbaz (2009) investigated the impact of financial development on poverty reduction in Pakistan and found that financial development is negatively related to poverty. Ellahi (2011) confirmed a long run relationship among financial development, economic growth and poverty reduction. Odhiambo (2010) found that financial development leads to poverty reduction through the channel of domestic saving as there exists feedback between domestic savings and poverty reduction. Khan et al. (2012) suggested that financial development reduces poverty.

This more direct linkages between access to finance, poverty reduction and inequalities confirm the importance of financial inclusion for inclusive growth. In case of Pakistan however, these linkages are very weak as majority of the population is financially excluded. As mentioned above at least 53% of the population is without access to financial services and from the remaining 47% only 23% are formally served. The remaining 24% depend on informal sources to meet their financial needs. The econometric analysis above suggests that being a female or belonging to a lower income quintile reduces the possibility of accessing financial services. Only 3% of the females and 5% of the individuals living below poverty line have access to financial services. It means that the most vulnerable and deprived demographic groups are unable to access and utilize financial services and hence unable to share the benefits of economic growth. Lack of income (money), distance, lack of collateral and financial products being too expensive, are the main barriers to financial inclusion. The analysis suggests that these barriers are also more relevant for females and poor people and thus access to finance is limited to males and individuals with higher education levels. This inequitable distribution of financial access opportunities has negative implications for both poverty and inequality drop. Similarly, heavy reliance on informal sources by a large proportion of population submits a lot of discrimination, exploitation and cultivation of further inequalities. Due to limited or no financial access for larger segments of society the role of financial inclusion in achieving inclusive growth is very limited.

FINANCIAL INCLUSION AND PARTICIPATION IN PAKISTAN

Participation is another important dimension of inclusive growth suggested by Ramos et al. (2013) which is assessed by employment to population ratio in a country. There are a limited number of studies which specifically focus on the relationship among finance and employment. Gine and Townsend (2004) provided evidence that in Thailand financial deepening aided a considerable part of rural workforce to move from the farming sector to formal labor markets in municipal centers, resulting in an average increase of 17% –34% in their incomes. Aterido et al. (2007, 2010) suggested that even simple and small amounts of finance can lead to increase in employment growth. IMF (2013) declared that access to finance is vital for business growth and job creation. It was found that lack of finance is an important constraint for small and medium enterprises in developing countries.

Financial inclusion not only results in employment growth in short-run but can be helpful in bringing long-term structural changes in the economy. One possible example is that financial inclusion and access to credit can gradually increase the employment share of females. Provision of easy and timely banking facilities to females generates employment opportunities and makes females more productive members of the economy. Financial exclusion restricts individuals from availing opportunities to raise their skills and capabilities and hence reduces their employability leading to poverty and income inequalities. Availability of and access to financial services can particularly help females as they are the most deprived and vulnerable among various demographic groups. This will gradually increase their participation in economic activity and can lead to increase in employment to population ration in long run.

VI. CONCLUSION AND POLICY IMPLICATIONS

The study has provided a detailed account of various aspects of financial inclusion s in Pakistan. The analysis has explored the phenomenon from various angles to reach at solid conclusions and viable policy options. Following is a summary of the findings of the study:

- Pakistan is unfortunately one of the least financially inclusive countries of the world. The indicators of financial inclusion show that it is much behind other countries with similar income levels. All three financial inclusion indicators for Pakistan are below South Asian average.

- The Financial exclusion experienced by Pakistan has many different dimensions. Lack of access to financial opportunities is more prevalent for females and people falling in lower income brackets More developed and urban areas have a relatively greater access to financial institutions as compared to underdeveloped, rural and remote areas.
- There are many different constraints to financial inclusion in Pakistan which act as an obstacle to inclusive growth.
- An analysis of determinants of financial inclusion suggests that income, gender, age and education level of an individual play an important role in this regard. Being a female reduces the probability of being included manifolds for all the three dimensions of financial inclusion. Probability of being financially included increases with age. Older people have a higher probability of being financially included as compared to young people. Similarly, probability of financial inclusion increases with an increase in education level of an individual. People falling in higher income quintiles have a better chance of being financially included as compared to the ones in lower income brackets.
- The analysis based on micro data also suggests that lack of money, lack of documentation, distance and cost of financial services are perceived as major barriers to financial inclusion by various demographic groups. Although these barriers affect all the individuals however the implications for females are much stronger in each case. Religious reasons however are not an obstacle to financial inclusion in Pakistan.
- The study has also analyzed as to how various borrowing sources are affected by different demographic factors like gender, age, education level and income level of an individual. It is found that sources of borrowing are sensitive to gender, education and income.
- The linkages among inclusive growth and financial inclusion are also explored in the light of existing literature. It seems that existing state of financial inclusion in Pakistan is neither effective in increasing the extent of benefit sharing nor in raising participation of deprived and socially excluded.
- Financial inclusion can be a vital source to reduce poverty and income inequalities and in generating productive employment. However, in Pakistan, where majority of population is financially

excluded this channel seems too weak to play any role in attaining inclusive growth.

Based on above findings, it is suggested that there is a need to take effective steps to enhance the extent of financial inclusion in Pakistan which will help to reduce poverty and inequality and to create productive employment opportunities. There is a need to particularly focus on deprived and socially excluded segments by providing them easy and affordable access to various financial services by removing various obstacles. Financial institutions can simplify their procedures, offer appropriate products, run campaigns to create awareness about various products, and can also waive the collateral requirement for small loans. An increase in access to finance for females can be more effective in poverty reduction and raising living standards of households. Financial inclusion reduces gender disparities, empower women and increases inclusive growth. Financial institutions can provide small loans on subsidized rates to the masses living in remote, under developed and unprivileged areas which will help people living in these areas to become a part of economic growth process and ultimately benefit from this process which will improve the overall welfare of the society.

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