THE STATE OF FINANCIAL INCLUSION AND DIGITIZATION IN PAKISTAN: INSIGHTS FROM THE GLOBAL FINANCIAL INCLUSION INDEX 2021

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Abstract

The purpose of this paper is to understand the determinants of financial inclusion and the reasons that impedes financial inclusion in Pakistan. Moreover, the preferences of individuals regarding formal and informal sector are also analyzed. For this, data have been taken from the Global Findex database 2021. Various measures of financial inclusion representing ownership, usage, and fintech are used. The independent variables used are: gender, age, education, and income. Due to the binary nature of dependent variable, we used Probit model technique for estimation. The results show that being female reduces the likelihood of financial inclusion while age and higher income increases it. Moreover, expensive financial services, financial constraint, and someone else having account are significant hurdles. Individuals prefer informal sector over formal for their savings and borrowing. The results of the study are useful for policy makers to focus on the determinants and hurdles proposed in this study.

Keywords: financial inclusion, fintech, GFI 2021, financial markets and institutions, formal and informal sector.

1. Introduction

Financial inclusion is considered a vital developmental policy in recent years due to its role in reducing poverty, equitable distribution of economic opportunities, and attaining financial stability. However, in case of Pakistan, the state of financial inclusion is one of the least in the world. The country has long struggled with high financial exclusion. To enhance financial inclusion, the country adopted a comprehensive National Financial Inclusion Strategy (NIFS) in 2015. The strategy was developed by State Bank of Pakistan (SBP) in association with several stakeholders including banks, donor agencies, different government departments etc. The strategy formulated a roadmap to enable the country to achieve its proposed goals. Under NFIS, Pakistan was eyeing on achieving 50 percent adult population, including women and youth, to be financially included till 2020. In order to achieve this target, the strategy focused on four major areas: promoting digital transactions and reducing reliance on cash payments, expanding and diversifying access points, enhancing the capacity of financial services providers, and increasing level of financial literacy. Even after three years have passed, the country is still lacking behind its projected target. According to GF report (2021), only 21 percent of adults of Pakistan are financially included compared to a global average of 69 percent. This accounts almost 5 percent of the world's financially excluded. The economy is still mostly cash based. Digital payments are low. Financing to main sectors such as agriculture, Small and Medium Enterprises, and housing sector is low. Voluntary financial exclusion, such as restrictions from religion is also impeding people to financially associated with formal financial sector. This requires a thorough examination of financial inclusion, its determinants and the reasons of impediments in Pakistan.

The determinants of financial inclusion have been extensively studied in the literature. Social factors such as age, health, education, income, financial literacy, gender etc. are suggested significant in the literature. These determinants are suggested to play a key role in shaping behavior of people and decision making regarding their choice towards financial inclusion (Cabeza-García et al., 2019; Demirguc-Kunt et al., 2016; Grohmann et al., 2018; Ibtasam et al., 2018; Raza et al., 2015; Sha'ban et al., 2020). Regarding the impediments, these are divided into two broad categories based on their nature. First, involuntary exclusion includes the reasons that restricts people to use any financial services. For example, financial constraints, unable to afford financial services, difficulty in accessing financial institutions. Second, voluntary exclusion refers to the reasons where people choose to stay away from financial institutions e.g. lack of trust in financial institutions, religious restrictions, and no need for an account (Bashir et al., 2022; Beckmann & Salvatore, 2017; Brown et al., 2016; Crépon et al., 2015; Girón et al., 2022; Kokorović Jukan et al., 2020; Zulfiqar et al., 2016). These reasons individually or combined contribute in financial exclusion.

The objective of this study is to understand the significant determinants and the reasons that impedes financial inclusion in Pakistan. Being one of the least financially included country in the region, it becomes all the more important to study to study the case. Identification of the problem is the first step towards its solution. Therefore, this study will analyze the determinants and the hurdles that people of Pakistan is facing. This study will contribute to the existing literature as the analysis is done on latest available data of financial inclusion i.e. 2021. Moreover, this study also contributes to the literature by examining the reasons of savings and borrowing which is crucial to understand how people react to certain situations and how it is associated to financial inclusion.

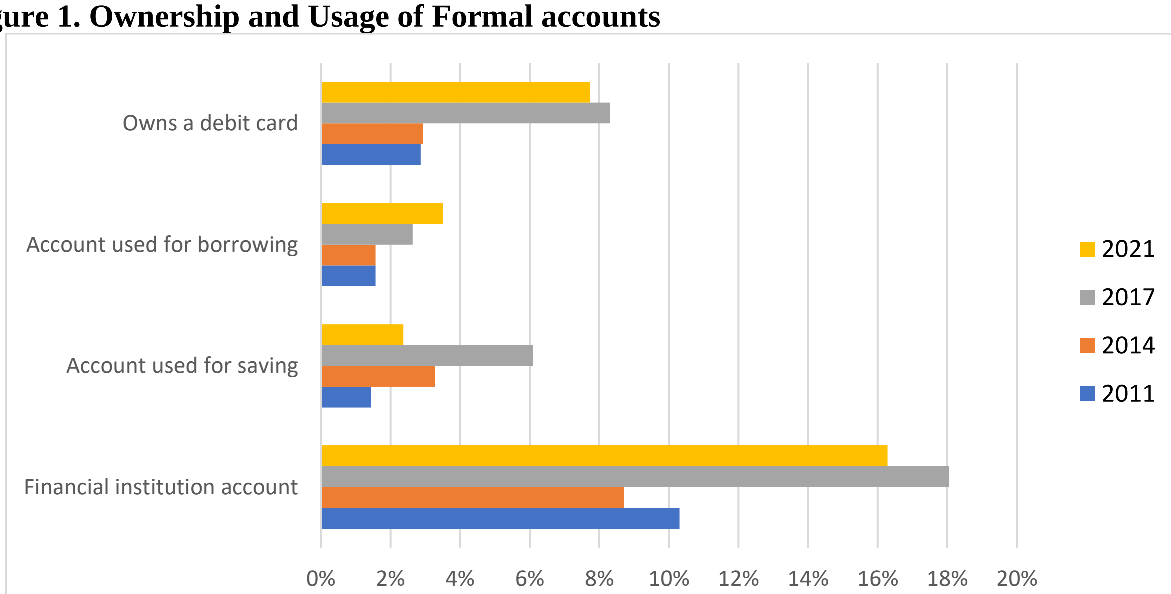
The rest of the paper is organized as follows: section 2 presents the facts about financial inclusion in Pakistan, section 3 contains data and methodology, section 4 presents the estimation findings, and at the end summary and recommendations are provided.

2. Stylized Facts about Financial Inclusion in Pakistan

2.1 Ownership and Usage of formal accounts

Figure 1 shows the usage and ownership of formal accounts in Pakistan. The country has progressed in financial account till 2017 but decreased in 2021. However, it is still higher than it was in 2011. Same goes for the ownership of debit card. In 2011, it was 2.87 percent which reached to 8.3 percent in 2017 while decreased to 7.74 percent in 2021. The increase could be due to NIFS while Covid-19 may be the culprit in reversing the trend. The usage of account is showing mixed trend. Account used for saving reached to its maximum in 2017 while it declined laterwards. However, account used for borrowing has a continuous upward trend. The reason for this could be the fact that the people of Pakistan still borrows from informal sources. Overall, we find that the ownership of accounts and its usage both are unsatisfactory which is a worrisome situation.

Figure 1. Ownership and Usage of Formal accounts

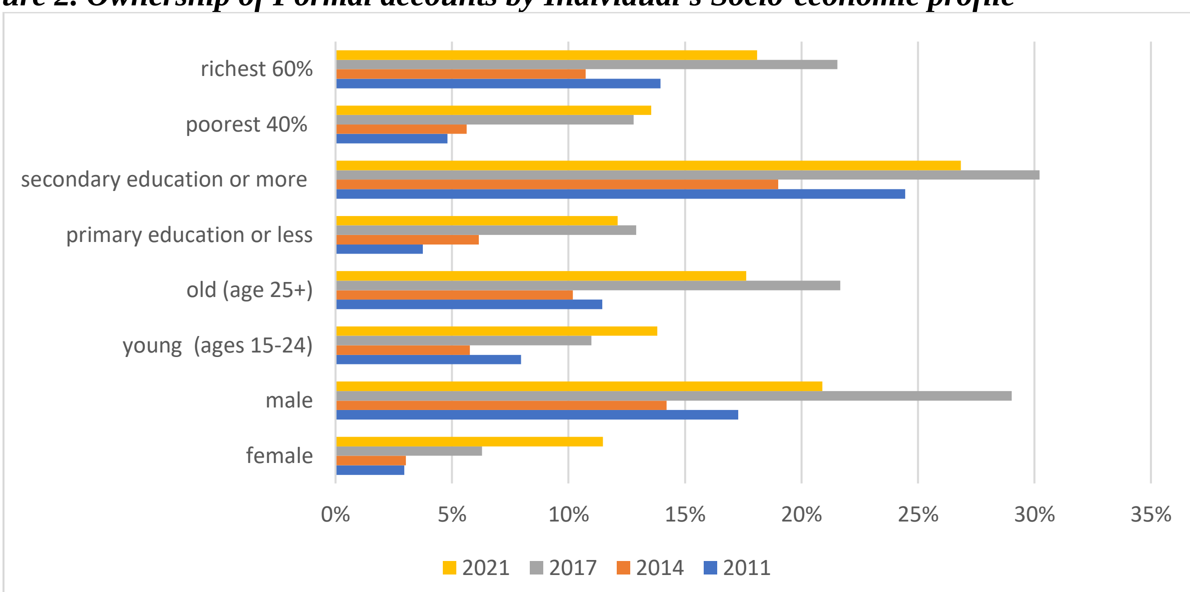


Source: World Bank Global Findex Database 2021

2.2 Ownership of formal accounts by individual's socio-economic profile

Figure 2 presents the situation of ownership of formal accounts based on individual's gender, age, education level, and income. According to Findex 2021, the gender gap has reduced from 14 percent to 10 percent during 2011 and 2021. This reduction in gap is due to greater increase in female financial inclusion in contrast to their male counterpart. Male ownership of account peaked to 29 percent in 2017 but later decreased to 21 percent whereas female account ownership shows a constant increasing trend. Ownership account based on age increased. Both young and old age individual's statistics show increase in ownership in 2021 as compared to 2011. Young aged individuals however performed marginally better than the old aged ones. Moreover, individuals with primary education or less ownership of account has done relatively better than individuals having secondary education or more. 8 percent increase in case of former ones whereas only 3 percent increase in later ones is observed. Poorest 40 percent individuals have 5 percent ownership in 2011 which increased to 14 percent in 2021. For richest 60 percent, it increased from 14 percent, went up to 22 percent and ended at 18 percent. 9 percent increase for poor whereas 4 percent increase for rich is observed.

Figure 2. Ownership of Formal accounts by Individual's Socio-economic profile

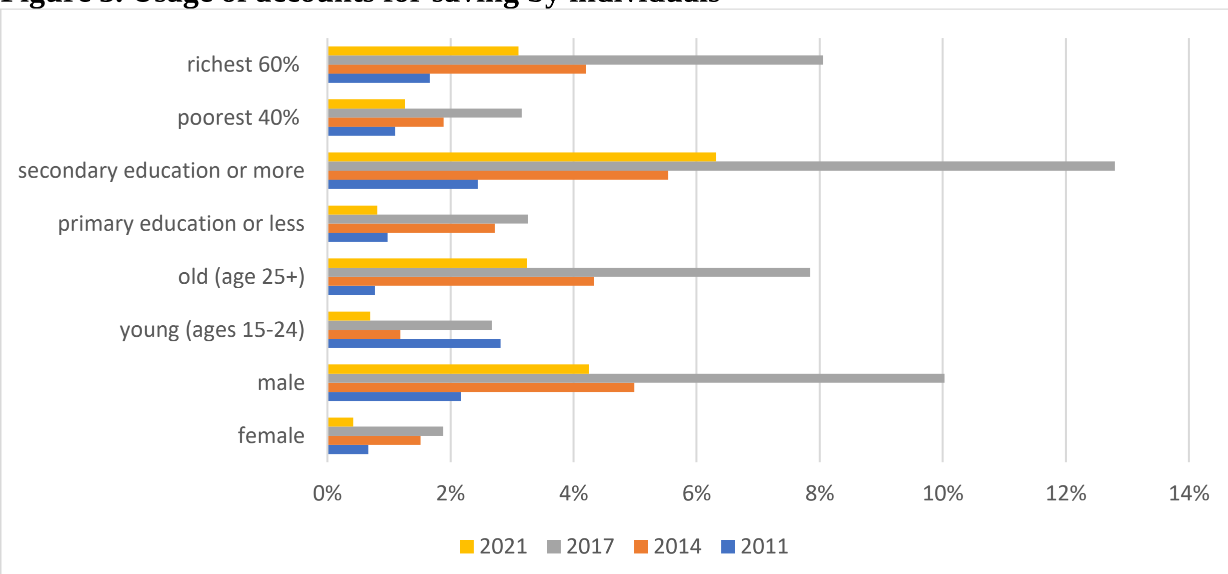


Source: World Bank Global Findex Database 2021

2.3 Saving and Borrowing behavior of individuals

Figure 3 shows the saving behavior individuals according to their socio-economic profile. According to Findex 2021, the usage of accounts for saving has decreased for female while increased for male. Individuals young or old, primary or secondary educated, and either poor or rich shows same trend of usage of account for saving. A meager increased is observed in case of rich. Overall, it increased from 2011 to 2017 but decreased in 2021.

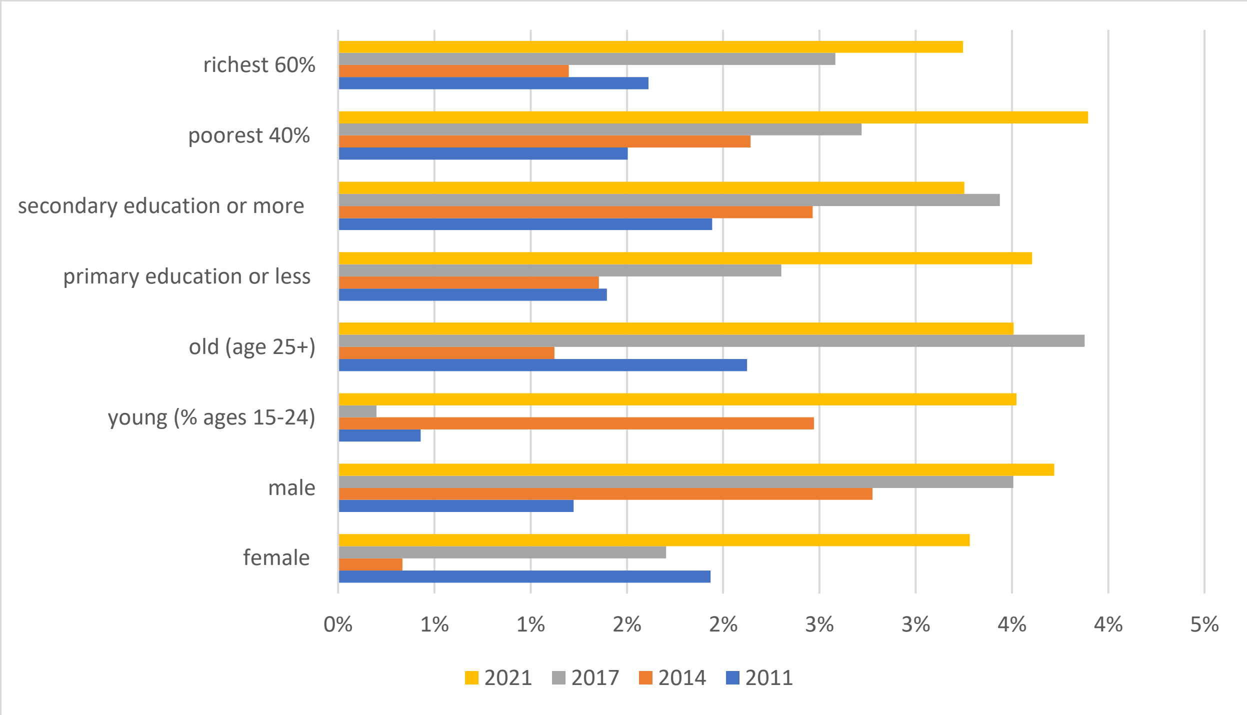
Figure 3. Usage of accounts for saving by individuals



Source: World Bank Global Findex Database 2021

However, borrowing behavior shows different trend than saving. Figure 4 shows that overall there is a continuous increase in usage of accounts for borrowing. It increased for gender where it is more obvious in case of male than female. Young individuals use of account for borrowing increased greatly than old aged people. Same goes for primary educated individuals. A meager increase is also observable for poor and rich individuals.

Figure 4. Usage of accounts for borrowing by individuals

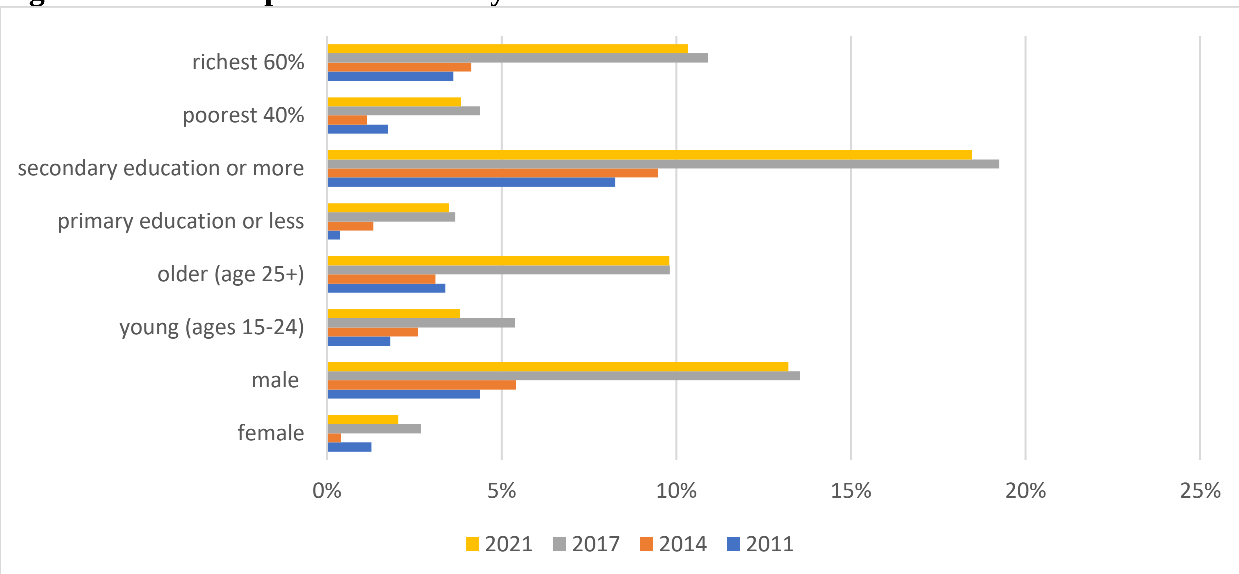


Source: World Bank Global Findex Database 2021

2.4 The state of digitalization

Given that one of the strategies of government of Pakistan is to increase financial inclusion by digitalization, it can be seen that the country has made remarkable progress overall. Figure 5 shows the situation of ownership of debit card by individuals. According to Findex 2021 statistics, overall the ownership of debit card has increased. Male are more pronounced in this than female. Similarly, old aged people, secondary educated, and rich have made more progress than rest of the others.

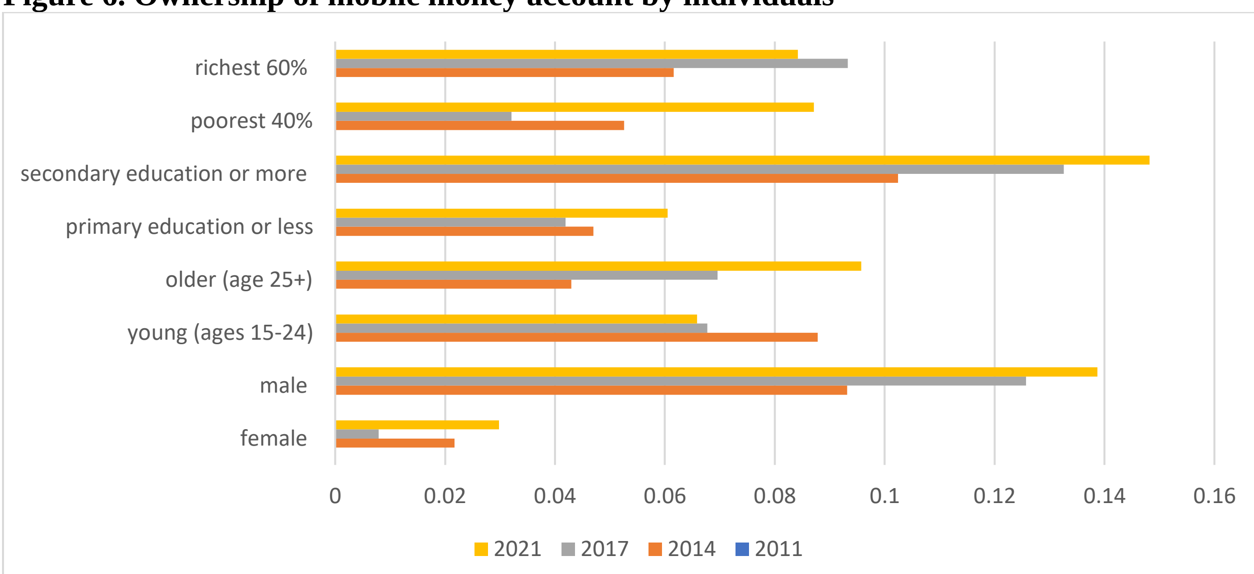
Figure 5. Ownership of debit card by individuals



Source: World Bank Global Findex Database 2021

Same is the situation in case of mobile money account. All the values show upward trend except for young. For them, mobile money account ownership has decreased.

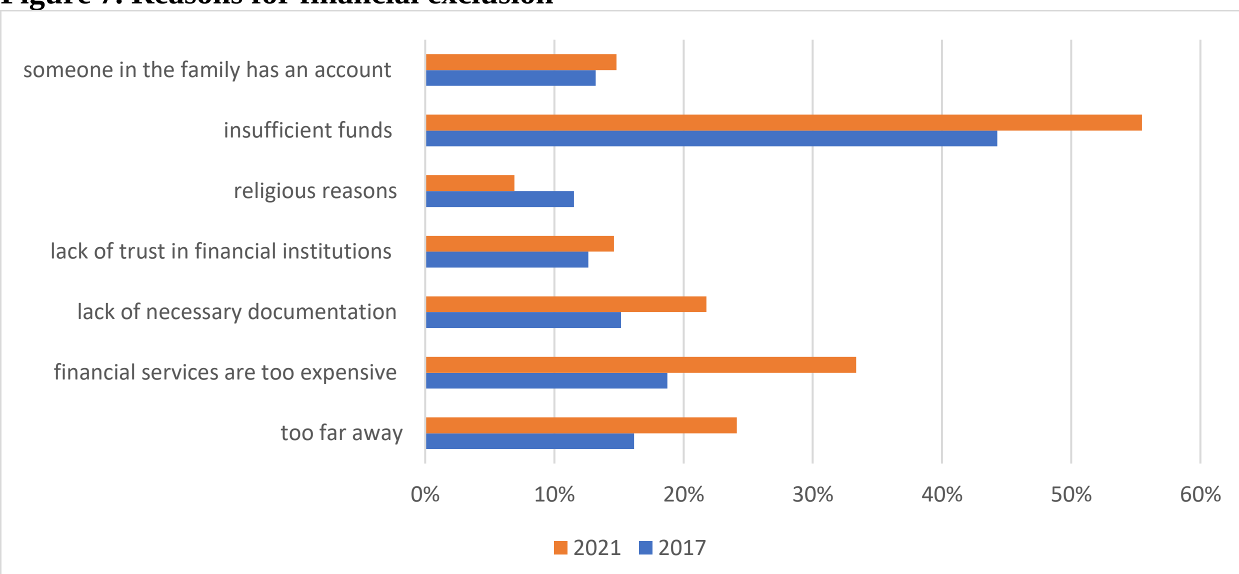
Figure 6. Ownership of mobile money account by individuals



Source: World Bank Global Findex Database 2021

2.5 Reasons for financial exclusion
2.6
Figure 7 shows the reasons for not associated with financial institutions. Among the reasons mentioned, insufficient funds and financial services being too expensive are the major ones in 2021. These are 55 percent and 33 percent respectively. These two were also significant in 2017. The least significant is religious reasons i.e. 5 percent only followed by lack of trust on financial institutions and someone in the family having account which are 15 percent. Religious reason is the only one that has reduced compared to year 2017. The reason for this decline may be due to the introduction and greater acceptance of Islamic banking system.

Figure 7. Reasons for financial exclusion



Source: World Bank Global Findex Database 2021

3 Data and Methodology

Data for the estimation is taken from World Bank Global Findex Database 2021. This is the most comprehensive database conducted by Gallup in 144 countries on 150,000 adults (aged 15 years and above). The database contains latest indicators on the usage and access of both formal and informal financial services. Moreover, it also includes the data of use of financial technology. For Pakistan, sample size 1002 adults. We used Probit model for estimation due to binary nature of variables. The estimated equation is:

$$Y_i = \alpha + \beta gender_i + \gamma age_i + \delta age_i^2 + \vartheta edu_i + \theta income_i + \varepsilon_i$$

In this equation, Y_i is binary in nature which represents different measures of financial inclusion. Following Zins and Weill (2016), we used ownership of banks account, savings, and borrowings as different measures of financial inclusion. In addition to this, to incorporate digital financial inclusion, we used mobile money account and debit card ownership as proxies. The independent variables used in the study are based on individual's socio-economic characteristics. These include gender, age, education, and income. Age squared is used to analyze nonlinearity. Except age, all other independent variables are constructed as dummies. Gender is equal to one if the respondent is female and zero otherwise. For education, we used three different dummies. For income, we used four dummies and omitted the richest 20 percent. In order to estimate the reasons of financial exclusion, we used eight different measures of impediments to financial inclusion. We used Probit model to estimate the equations due to dependent variable being dichotomous.

4 Results and Discussion

This section contains the estimation results of the determinants of financial inclusion including digital financial inclusion, the reasons for financial exclusion, and the reasons for savings and borrowings in Pakistan. Table 1 presents the probit estimation results of the determinants of financial inclusion. We used five different proxies of financial inclusion which includes: formal account, formal borrowing, formal saving, mobile money account, and ownership of debit card. For formal account, the survey question asked is: do you currently have a bank account in a formal financial institution? The question for formal saving is: have you saved or set aside money in a bank account last year? The question for formal borrowing is: have you borrowed from the financial institution in the last year? For mobile account, the question is: in the last year, have you personally used a mobile phone to make payments, buy things, or to send or receive money using any services? For the ownership of debit card, the question is: do you personally have an ATM/debit card?

Table 1. The Determinants of Financial Inclusion

VARIABLES	Formal account	Formal saving	Formal borrowing	Mobile money account	Ownership of Debit card
Female	-0.5182***	-0.5248**	-0.2793	-0.7102***	-1.0555***
	[0.101]	[0.227]	[0.174]	[0.133]	[0.155]
Age	0.0271**	0.0477*	0.1104**	0.0792**	0.0752**
	[0.020]	[0.039]	[0.050]	[0.031]	[0.030]
Age^2	-0.0002*	-0.0002	-0.0014**	-0.0010**	-0.0007*
	[0.000]	[0.000]	[0.001]	[0.000]	[0.000]
Secondary Education	0.3065***	0.5564**	-0.0186	0.3869***	0.5656***
	[0.109]	[0.240]	[0.189]	[0.133]	[0.145]
Tertiary	1.0152***	1.5687***	-0.0894	0.7216***	1.5296***

Education					
	[0.170]	[0.285]	[0.345]	[0.198]	[0.199]
Quintile 1	-0.1541	0.2090	-0.0801	0.1347	-0.4066*
	[0.155]	[0.333]	[0.296]	[0.195]	[0.208]
Quintile 2	-0.4445***	0.1523	0.1524	0.1459	-1.2487***
	[0.168]	[0.21]	[0.268]	[0.196]	[0.325]
Quintile 3	-0.4417***	0.2174	-0.2573	0.0299	-0.5014***
	[0.151]	[0.285]	[0.293]	[0.182]	[0.190]
Quintile 4	0.0979*	0.4945**	0.2842	0.0366**	0.1719**
	[0.135]	[0.248]	[0.227]	[0.173]	[0.166]
Constant	-1.3840***	-3.8343***	-4.0657***	-2.7247***	-2.7106***
	[0.395]	[0.895]	[0.908]	[0.578]	[0.591]
Observations	1,001	840	993	1,001	994
Pseudo-R:	0.124	0.232	0.053	0.111	0.308
Log-Likelihood:	-424.667	-99.400	-120.761	-269.185	-240.595
Chi-squared	120.625	60.047	13.518	66.895	214.595
Prob Wald:	0.000	0.000	0.141	0.000	0.000

Standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

According to the results, the gender discrimination in ownership and usage of accounts is evident. The values of the female coefficient are throughout negative which suggests it is difficult for females to associate with financial institutions. Same goes for the values of digital financial inclusion. Both mobile money account and ownership of debit card are negative. Therefore, one can conclude that females are less likely to financially included. This finding is in line with (Demirguc-Kunt et al., 2013; Wellalage & Thrikawala, 2021). Several reasons of gender discrimination have been presented in the literature. Legal discrimination, less risk-taking abilities of females, the fear of rejection from the lender, lack of education, lack of income, and higher collateral requirements are some of the reasons of financial exclusion (Byrnes et al., 1999; Coleman, 2002; Ghosh & Vinod, 2017; Guttler et al., 2015; Moro et al., 2017).

The coefficient values of age are significant and positive. This infers that with the increasing age, the likelihood of being financially included increases. They are more likely to have increase in ownership and usage. They are more likely to engage themselves with the technology. This is due to the fact that as people gets older, their income also increases along with their motivation to save for retirement period and for fulfilling their parental obligations, such as marrying their children and performing Hajj/Umrah (religious obligations) (Kokorović Jukan et al., 2020; Tuesta et al., 2015). Age^2 coefficient values are significant and negative inferring nonlinear relationship between age and financial inclusion. This may happen when people after fulfilling their parental and religious obligations requires less of financial services. For digital financial inclusion, it means with the advent of new technology, it is either difficult to get used to it or they either need not to. So, this can be both voluntary and involuntary.

The results in table 1 also suggests the impact of education on financial inclusion. The coefficient values are overall significant and positive. Higher coefficient values of Tertiary education as compared to Secondary education suggests higher the level of education, the greater the likelihood of financial inclusion (Abdu et al., 2015). Specially for digital financial inclusion, increase in knowledge which can also be understood as financial technology, leads to increase in digital financial inclusion.

The coefficient values of different quintiles are mostly positive but insignificant except for quintile 4. This suggests that relatively rich people are more likely to be using financial services. The coefficient values of ownership of debit card has been consistently positive and significant. This infers that irrespective of income level of people, they prefer to use digital financial instruments. However, on the whole, it can be concluded that income level is insignificant in determining financial inclusion in Pakistan (Kaligis et al., 2018; Zulfiqar et al., 2016).

Table 2 presents the reasons that are hurdle in financial inclusion. The reasons considered represents both voluntary and involuntary financial exclusion. Financial institutions being too far away is an issue for female and aged people. This suggests the location of financial institutions does matter. For Age^2 and Quintile 4, it is significant and negative which infers that location of financial institutions does not matter. This may be true as older aged people and rich both have one thing in common; they can afford to travel. Commute is not an issue for them (Noelia et al., 2014).

Expensive to use financial instruments is an issue for Female and Age groups. It is also a significant hurdle for individuals belonging to all income groups. However, the coefficient values is decreasing as the income increases which suggests that inability to use financial services decreases as income increases. It is more significant issue for poor people which is understandable. Lack of documents for opening up of account, using it, and for the usage of digital financial technology is an issue for aged people. Usually, there are strict protocols and hefty documentation requirement from financial institutions in for opening up of account, using it for saving and borrowing and also for the use of mobile money account and debit card. These requirements are difficult to fulfill specially for the old aged people because though their income may increase with the increase in age but they are not very much aware of the changing requirements and less know-how of digital financial technology. In addition to this, the language barrier can also be an important hurdle in communication. These all contribute in financial exclusion (Noelia et al., 2014).

Lack of trust is found significant issue for Tertiary education group. This means that as people are getting more aware of the tactics of financial institutions (taxes ratios, interest percentage offerings etc), they seem to trust on financial institutions. This can be a serious matter which needs to be dealt with in order to enhance financial inclusion. Similarly, poor people also seem to be having lack of trust on financial institutions. It can be occurred due to pre-negative conception about financial institutions. The results are in line with (Ulwodi & Muriu, 2017).

Someone else having account is a significant impediment for females. The coefficient value is both positive and significant which infers that female are not encouraged to open an account or use financial services both conventional and digital if their spouse or other close family member is already managing the financial side. In a patriarchic society, the duty of male is to earn and make important economic decision making. Whereas Field et al. (2021) suggests the importance of usage of financial services by female. According to them, personal accounts reinforces women's financial control. It increases their choice of work which leads to women empowerment. Similarly, educated individuals also perceive someone else having account is an impediment in financial inclusion (Ulwodi & Muriu, 2017; Zulfiqar et al., 2016).

Lack of money is conceived as a barrier in financial inclusion by Females and Age group. It is generally believed that lack of resources at the disposal of people leads to financial exclusion. Female and Age group both have positive and significant coefficient which infers both considers financial constraint an important issue in financial inclusion.

No need for an account and religious reasons both fall under the category of voluntary financial exclusion. No need for an account and religious reasons are found significant hurdle in female financial inclusion. Religious reasons are also found significant factor in financial exclusion for Tertiary educated people. Pakistan is a Muslim majority country. In Islam, dealing in 'interest' based transactions are strictly forbidden. The country is mostly populated with conventional banks whereas Islamic banking is still in its infancy. Therefore, individuals generally try to avoid using any financial instrument from such financial institutions. The analysis suggest that Female are about 29 percent and educated people are about 28 percent less likely to use financial services due religious reasons (Kim et al., 2018). No need for an account is significant for females (51 percent as compared to males). This seems strange but in fact literature suggests the female excluded from financial sector show greater interest if they are offered financial services. Their financial exclusion is voluntary due to the hostile position at home with respect to men (Dupas & Robinson, 2009).

Table 3 presents the probit results of saving and borrowing, the sources, and the reasons for saving and borrowing. Firstly, we compare the determinants of formal saving and informal savings. The results suggest that being female increases increase the likelihood of informal savings whereas it decreases the likelihood of formal savings. Moreover, with age, the likelihood of both formal and informal savings increases. However, being too elderly decreases this likelihood. With education, the likelihood tends to increase for both formal and informal savings. Individuals with less income are more prone to informal savings. In Pakistan, poor are usually tend to save more informally.

Table 2. Reasons for Financial Exclusion

VARIABLES	Too far away	Too expensive	Lack of documents	Lack of trust on FIs	Religious reasons	Financial constraint	Someone else having account	No need for an account
Female	0.2875***	0.1994**	-0.0118	-0.0928	0.2936**	0.4628***	0.6802***	0.5184***
	[0.097]	[0.099]	[0.098]	[0.110]	[0.128]	[0.092]	[0.119]	[0.091]
Age	0.0370*	0.0377*	0.0357*	0.0370	0.0417	0.0503***	-0.0281	0.0237
	[0.022]	[0.020]	[0.018]	[0.023]	[0.029]	[0.020]	[0.020]	[0.018]
Age^2	-0.0005*	-0.0003	0.0004*	-0.0003	-0.0005	-0.0006**	0.0004	-0.0002
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Secondary Education	-0.0173	0.0480	0.0535	0.1542	0.1346	-0.2005**	0.3897***	0.1134
	[0.107]	[0.110]	[0.108]	[0.122]	[0.137]	[0.100]	[0.121]	[0.100]
Tertiary Education	-0.2222	0.2781	-0.1935	0.4939**	0.2824*	0.0301	0.8348***	0.1121
	[0.238]	[0.221]	[0.249]	[0.238]	[0.280]	[0.218]	[0.230]	[0.214]
Quintile 1	-0.0325	0.5018***	0.2716*	0.3241*	0.2672	0.1052	-0.2258	-0.1684
	[0.154]	[0.159]	[0.153]	[0.172]	[0.197]	[0.144]	[0.182]	[0.145]
Quintile 2	0.1317	0.5493***	0.1774	-0.1072	0.2159	0.2428	-0.1247	0.1020
	[0.154]	[0.163]	[0.155]	[0.192]	[0.200]	[0.148]	[0.174]	[0.145]
Quintile 3	0.0962	0.4201***	0.0661	0.1709	-0.1084	0.1761	-0.2673	0.0132
	[0.142]	[0.150]	[0.146]	[0.163]	[0.201]	[0.136]	[0.167]	[0.135]
Quintile 4	-0.2622*	0.3319**	-0.1492	0.2204	0.2113	0.0886	-0.0104	0.1363
	[0.148]	[0.149]	[0.151]	[0.161]	[0.184]	[0.134]	[0.155]	[0.134]
Constant	-	-	-0.1295	-	-	-0.3640	-	-0.5084

	1.0163***	1.3475***		1.9182***	2.4632***		1.0696***	
	[0.409]	[0.388]	[0.357]	[0.447]	[0.551]	[0.363]	[0.391]	[0.348]
Observations	791	688	830	749	823	829	837	830
Pseudo-R:	0.023	0.037	0.014	0.027	0.025	0.040	0.090	0.043
Log-Likelihood:	-463.079	-447.440	-448.338	-343.971	-249.407	-530.775	-335.174	-540.535
Chi-squared	22.131	34.178	13.014	18.751	12.595	44.217	65.924	48.471
Prob Wald:	0.008	0.000	0.162	0.027	0.182	0.000	0.000	0.000

Standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

Formal savings have its advantages. The finances can be utilized for better uses. Therefore, education and income can play an important role in saving formally rather than informally. Saving for old age is insignificant for females. This suggests that females are less likely to save for their old age. This is understandable because mostly, they save for the children and very less likely for themselves. For Age and Age^2, the coefficient values are significant and positive and negative respectively. This means that with aging, people tend to save more. However, the motivation for saving decreases once individual gets too old. Quintiles 1 and 2 are both significant and negative. This infers that poor people usually prefer today over tomorrow. They do not have much resources to save for their old age. Therefore, their focus is limited to present and not future.

Borrowing is another source of financial inclusion. In Pakistan, female prefer informal borrowing over formal borrowing. With age, individuals prefer more formal borrowing. However, too elderly also become impediment to borrowing. Educated despise informal borrowing as the sign of informal coefficients is suggesting. Poor favor borrowing from informal sector rather than formal. These results prove our statement made earlier that people of Pakistan prefer informal sector over formal for borrowing. Furthermore, borrowing done by females are for health purposes. It is also true in case of poor. They also borrow from informal sector for their health. These are understandable because both female and poorest segment of the society do not or unable to save for themselves. Therefore, when the need arises, they have to go for borrowing. Because they prefer borrowing from informal sector. they borrow form informal sector such as family and friends. Most of the results are in line with (Bashir et al., 2022; Dar & Ahmed, 2020; Zins & Weill, 2016).

Table 3. Types of Savings and Borrowings and their motivation

VARIABLES	Formal saving	Informal saving	Saving for old age	Formal borrowing	Informal borrowing	Borrowed for health	Borrowed from family/friends
Gender	-0.5248	0.0260*	0.1713	0.2793	0.0292**	0.2145**	0.1208*
	[0.227]	[0.126]	[0.130]	[0.174]	[0.374]	[0.108]	[0.090]
Age	0.0477**	0.0335**	0.0208**	0.1104**	-0.0006*	0.0260	-0.0798***
	[0.039]	[0.028]	[0.025]	[0.050]	[0.099]	[0.022]	[0.021]
Age^2	-0.0002	-0.0004	-0.0001*	-0.0014**	0.0002**	-0.0002	0.0010***
	[0.000]	[0.000]	[0.000]	[0.001]	[0.001]	[0.000]	[0.000]
Secondary Education	0.5564**	0.0262*	0.0389	-0.0186	-0.0143*	0.0228	0.0958
	[0.240]	[0.138]	[0.143]	[0.189]	[0.395]	[0.118]	[0.098]
Tertiary Education	1.5687***	0.1712**	0.4372**	-0.0894	-0.4168**	-0.0963	0.0157
	[0.285]	[0.213]	[0.207]	[0.345]	[0.626]	[0.220]	[0.171]
Quintile 1	0.2090	-0.6102***	-0.6011**	-0.0801	0.0028***	0.3527**	0.0238*
	[0.333]	[0.227]	[0.241]	[0.296]	[0.725]	[0.161]	[0.144]
Quintile 2	0.201	-0.512***	-0.5011**	0.1524	0.4672	0.0062	0.0428
	[0.32]	[0.227]	[0.21]	[0.268]	[0.709]	[0.176]	[0.144]
Quintile 3	0.2174	-0.2171	-0.1274	-0.2573	0.2099*	-0.0297	0.1758
	[0.285]	[0.171]	[0.174]	[0.293]	[0.510]	[0.163]	[0.129]
Quintile 4	0.4945**	-0.2773	-0.2764	0.2842	0.0789	0.0836	-0.0246
	[0.248]	[0.169]	[0.178]	[0.227]	[0.503]	[0.153]	[0.128]
Constant	-3.8343***	-1.8653***	-2.0838***	-4.0657***	-0.6334	-1.9670***	-2.0738***
	[0.895]	[0.535]	[0.504]	[0.908]	[1.886]	[0.430]	[0.394]
Observations	840	992	994	993	71	995	996
Pseudo-R:	0.232	0.035	0.054	0.053	0.043	0.020	0.020
Log-Likelihood:	-99.400	-246.702	-234.632	-120.761	-32.362	-355.060	-551.871

Chi-squared	60.047	17.849	26.758	13.518	2.87	14.463	22.973
Prob Wald:	0.000	0.037	0.002	0.141	0.969	0.107	0.006

Standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

Summary and Policy Recommendations

In this study, we examined the socio-economic determinants of financial inclusion, the reasons for financial exclusion, and the sources and reasons for savings and borrowing in Pakistan based on the latest Global Findex data 2021. Our dependent variable is binary in nature, therefore we used probit estimation technique. The results from the estimation suggests that females are more disadvantaged in financial inclusion. Their likelihood of ownership of account, usage, and digital financial inclusion are less likely than their male counterparts. Age and higher income level increase the chance of financial inclusion in Pakistan. We also found out that financial services being too expensive, financial constraint, and someone else having account are major reasons that impedes financial inclusion in Pakistan for different group of individuals. Informal saving and informal borrowing, both are preferred over formal sector. Educated and aged people use their savings for old age while most of the informal borrowing are from friends and family and are used for health purposes by female. Poor people also prefer informal sector, borrow from friends and family, and use the borrowing on their health.

For making a meaningful policy, policymakers of Pakistan need to take into consideration the significant determinants and the reasons of impediments in financial inclusion. For example, this study identified that females are less likely to own and use financial instruments. Due to patriarchal society, it is necessary to encourage them and provide facilities that enables them to use financial services. Recently, Meezan Bank has taken the initiative to introduce "Women First Account" to facilitate women through access to financial services. However, it needs to be done at a national level. Furthermore, the results of this study also suggest that people of Pakistan are more inclined to use informal sector for both savings and borrowings. This inclination needs to be tackled. As our result suggest financial constraint and financial services being too expensive are the leading reasons for not using financial instruments, it is therefore required that these hurdles must be remove in order to induce individuals to opt for formal financial services.

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