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The Determinants of Financial Inclusion in Pakistan

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Abstract

Financial inclusion is seen as a critical component in achieving the objective of inclusive economic growth. Financial inclusion is now commonly recognized as a vital ingredient for poverty reduction and improved prosperity. Adults in the world's poorest homes, on the other side, remain unbanked in increasing quantities. The article characteristics, that affect financial inclusion in Pakistan are examined. The paper goals to scrutinize the Determinants of Financial Inclusion in Pakistan. The study has taken use of the database World Bank's Global Findex from 2017. The outcomes of the paper are that Gender, education, age, and income are all important aspects that stimulus financial inclusion in Pakistan. According to the findings, a richer person, better educated, and older supports financial inclusion and has a greater impact on education and income, based on Probit forecasts. Mobile banking follows the same procedure as traditional banking. The elements of informal funding differ from those of formal funding. Empirical analysis indicated that Pakistan is a country in which 51.8 percent of Pakistanis said they have borrowed money from an unofficial source. As a result, using credit is a rather common practice throughout the continent. The government should create rules encouraging financial service providers to locate their facilities closer to users or to adopt technology that makes financial services more available, like agency and mobile banking. The results indicate that a lack of resources and the execution of proper documents are made it almost impossible to access financial services. It aims at providing all segments of society with extensive and quick financial access in order to generate and enhance long-term, inclusive economic growth that helps anyone.

Keywords: Financial Inclusion, Financial Institution, Pakistan

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1. Introduction

During the G20 Summit in Seoul in 2010, financial inclusion, or the use of formal financial services, was highlighted as one of the core underpinnings of the agenda for sustainable development (Le, Chuc, & Taghizadeh-Hesary, 2019). Financial inclusion has come to be a significant policy subject in numerous nations, specifically in emerging countries where tremendous economic development is uncovered by related disparities. The essence of financial inclusion is to provide equitable access to the individuals and make assure the participation of these individuals in the growth process and provide better economic prospects and extend their selections, which finally make them more fruitful and efficient economic mediators in the society.

Financial inclusion, in its most basic form, refers to a person's ownership of a formal financial institution account. Users will use this type of account to also save and borrow money, and also to get bills and make payments. There seem to be economic benefits as a result of being financially included. It will have the chance to facilitate the poor and disadvantaged by encouraging them to improve their income and enhance their possibility of getting work (Kaur & Kapuria, 2020). Indeed, without encompassing financial institutions, poverty traps could arise, limiting economic development, whilst the availability of capital allows investors to spend on their education, finance projects, and start new businesses (Kong, Tampuri Jnr, & Opoku Boadi, 2018). Additionally, financial inclusion can encourage women's empowerment (Baber, 2019) and assist in maintaining financial stability (Kong, Tampuri Jnr, & Opoku Boadi, 2018).

Omar and Inaba (2020), financial inclusion is the method of increasing the right to use to and use of formal financial activities and services while lowering the perceived barriers that people who do not engage in the formal financial method encounter. International Monetary Fund (IMF) is described as "systematic actions aimed at making financial services available to anybody and everyone, particularly the poor and disadvantaged". As a result, one of the most key questions for Pakistan's economic development is to find out what features stimulus financial inclusion. The objective of the research is to add to the study of aspects that determine financial inclusion in Pakistan. We accomplish this goal by responding to important questions about financial inclusion in Pakistan employing data from the Global Findex of World Bank's database from 2017.

Financial inclusion has multiple dividends. Firstly, it alleviates poverty by increasing access to a bank that makes enables individuals and households to safely accumulate their savings. It also decreases the chances of the vulnerability of poor people by reducing the adverse effect of income shocks.

Financial inclusion improves the access to credit which ultimately improves the asset base of the individual and households. Secondly, financial inclusion increases economic growth by mobilizing savings, facilitating financial transactions, providing better opportunities to the individuals and households for investment in different sectors. Lastly, financial inclusion encourages constancy by establishment the financial market and organizations, extending the financial markets for quality financial service delivery to the end-users. It also facilitates risk management through numerous services for instance insurance.

This paper adds to the existing knowledge base in a variety of ways. In addition to previous literature from all around the world, it focuses on the determinants of financial inclusion in the context of Pakistan (Demirgüç-Kunt, Klapper, & Panos, 2016); (Fungáčová, & Weill, 2015). Second, as Pakistani financial markets are mainly composed of the interaction of formal financial institutions and informal actors, this paper adds to the literature by examining unique characteristics of informal finance, such as mobile phone banking. Lastly, this article brings a different and also look at the features that affect financial inclusion. The accompanying is the remainder of this article. The second part discusses a thorough overview of the existing literature. The methodology is described in section 3. Section 4 presents financial inclusion projections, and the final section puts the study to a conclusion.

2. Literature Review

The researcher has used Rational choice theory which argues to open the black box of the human mind in which inputs or demands are entering and of course, the decisions are made. In rational choice theory, a person sets their goals, then he or she follows the sequence of rational actions to achieve their goals. Furthermore, behaving as a rational actor is a person who takes social actions or decisions. These individuals are self-interest and self-maximizers in decision making (Triandis, 2001). It is seen that the actions of individuals are optimality based which means facing the course of actions an individual would choose the action which has the best result. The World Bank (2015) well debated the role of financial inclusion. Previous literature (Allen, Demirguc-Kunt, Klapper, & Peria, 2016; Amidžic, Massara, & Mialou, 2014; Ghosh, 2012) mostly focused and employed the macro-level indicators for analyzing the financial inclusion determinants.

Global Findex, World Bank's database 2014, and global statistics about financial inclusion were provided by (Demirgüç et al., 2015). They proposed that 62 percent of adults have a formal financial institution account in the world, such as a mobile money dealer. Ownership Account of the developing economies has been tremendously increasing and reached 54% of the

population in the year 2014. Although, the share percentage of formal accounts of the developed economies is far higher (94%) than the developing economies. In 2014, 56 percent of adults globally said they would have saved money in the previous year. The share percentage of the formal savers in the developed economies is 70% whereas, for the developing economies is 40%. In the year 2014, 42% of adults worldwide witnessed that they borrowed money in the last year. Formal borrowing has been utilized by 18% and 9% of the adults of the countries both from developed and developing worlds, respectively. The 2012 Global Findex database of World Bank has been utilized to explore the individual characteristics of financial inclusion on a worldwide measure and realized that the likelihood of taking a proper financial account and formal saving increases for those who are older, more educated, wealthier, have a job, are married, live in a city, or are separated (Allen et al., 2016). They also revealed that educated, wealthy, older, and married men are much more likely to take out formal loans.

In accordance with database of Global Findex 2012, Fungáčová and Weill (2015) studied the determinants of financial inclusion in China. Their finding showed that wealthier, adult, and better-educated males are further probable to be stable financially. The two major hurdles to financial inclusion for the poor are limited resources and having a member of a family with an account. The expense of financial inclusion is a barrier for the less educated, while belief in the banking system is a barrier for the more educated. Women confront difficulties in being financially independent due to a deficiency in paperwork or a family member who maintains a bank account. Regarding older people, they face more difficulties to be financially inclusive due to lack of money, being too far away, and religion. Concerning credit, the choice of formal and informal credit relies on the level of income and education.

Zulfiqar, Chaudhary, and Aslam (2016) using the 2014 database of Global Findex studied for financial inclusion in Pakistan and their findings revealed that the likelihood for richer, older men and high education lead to increase financial inclusion. Their study further documented that absence of fund, cost, deficiency of documentation is considered the key barriers to financial inclusion for all individuals but their implications for females were more robust. However, religion was not perceived as an obstacle to financial inclusion in Pakistan. Sources of credit were sensitive to gender, education, and income. Dar et al. (2020) Consuming the Global Findex Database from 2017, the study examined the elements that determine financial inclusion in India. The research establishes that age, gender, income, and education have a substantial control on informal saving and borrowing. Gebrehiwot et al. (2019) GMM dynamic panel data analysis has been employed to perform a simple scholarship in 27 African countries. According to their observations, the trailed

worth of GDP per capita and mobile substructure has just a strong connection with financial inclusion, whereas government financing has a negative impact.

Sanderson (2018) inspected the determinants of financial inclusion in Zimbabwe and their consequences reveal that age, education, income, internet connectivity, and financial literacy influenced financial inclusion positively. Whereas, documentation necessary to open any bank account was negatively associated with financial inclusion. The decision-making threshold theory suggested by (Pindyck & Rubinfeld, 1998a), and others provides a theoretical framework for the evaluations in this paper (Sun, Chen, Zhang, & Ma, 2020). When persons are confronted with the decision over whether or not to seek inclusion in Ghana's formal financial market, the model suggests that they have an underlying response threshold that is dependent on a set of situations.

3. Methodology

This study has been utilizing the database of the World Bank's Global Findex since 2017. The databank has been formed to study 147 countries, which represent 97 percent of the worldwide people. This sample poll comprises 1600 individuals who were chosen randomly from each economy and questioned in over 140 languages. All civilians aged 15 and up would be included in the target population.

The Global Findex file comprises detailed information on a variety of financial inclusion variables, such as the motives for saving and borrowing, the use of financial services, and non-traditional credit options. It also includes micro-level data (like gender, age, education, and income level), all of which have been incorporated into our analyses and forecasts.

This study, like earlier research, focuses on the three major markers of financial inclusion. A formal bank account is an individual that has a formal account with a banking institution. Formal savers are persons who saved using a formal account at a financial institution in the prior year. Individuals with formal credit have acquired credit from a financial institution in the previous year. All of these financial inclusion metrics are dummy variables that are one if the respondent responded "yes" and zero if they had said "no."

The study's objective was to assess the factors that influence financial inclusion in Pakistan. So for this purpose, we perform Probit regression to estimate the following equation:

$$finInc_i = \alpha + \beta * Gender_i + \gamma * Age_i + \delta * Income_i + \rho * Education_i + \varepsilon_i$$

$finInc$ stand for financial inclusion, so even though pertains to the individual. Personality factors are the independent variables (and i indicate a single member. The descriptive factors are distinct features. Dummy variable

for gender that is one if one of the participants is female and zero if the other is. The variable Age is included with two measures to manage its non-linear relationship with financial inclusion: one is the total of years "Age" and the other is "Age2." We utilized four dummy variables to compute income, each of which is equal to one of the persons in a given quintile and zero otherwise. These are the individuals (poorest 20 percent, second20 percent, third 20 percent & fourth 20 percent). The 5th quintile (the richest 20%) is regarded as an absent dummy variable. To account for education, utilized two dummy variables were: one for secondary education and the other for tertiary education. Secondary education is characterized by assigning a value of one to each individual who has acquired secondary education and zeroes to those who have not. Similarly, tertiary education is equal to one for those who have tertiary education and zero and those who do not.

4. Findings and Discussion

Table 1: Descriptive Statistics for Personal Features

	Explanation	Obs	Mean	SD
Female	Dummy variable 1= if individual is female 0=otherwise.	1600	0.49	0.50
Age	Number of years of age	1599	34.69	13.95
poorest 20%-Income	If the person's income is in the upper quintile, the dummy variable is 1; otherwise, it is 0.	1600	0.18	0.38
Second 20%-Income	If the individual's income is in the second quintile, the dummy variable is 1, otherwise, it is 0.	1600	0.16	0.37
Third 20%-Income	If the individual's income is in the third quintile, the dummy variable is 1, otherwise, it is 0.	1600	0.18	0.38
Income-Fourth 20%	If the person's income is in the fourth quintile, the dummy variable is 1, then it is 0.	1600	0.21	0.41
Secondary Education	If the person has completed secondary education, the dummy variable is 1; otherwise, that is 0.	1600	0.34	0.47
Tertiary Education	Dummy variable 1= if individual is female 0=otherwise.	1600	0.05	0.23

Note: *To compensate for income, this study employed four dummy variables (lowliest 20 percent, second 20 percent, third 20 percent, and fourth 20 percent). Secondary education and higher education are being used as dummy factors in this study. It is one of the people who has finalized secondary education; otherwise, it is zero. Tertiary education is one of the individuals who has earned a university education or more; otherwise, it is zero. The descriptive statistics for the personal attributes can be comprehended in Table 1.*

Table 1, highlights the descriptive statistics of personal features which include income in different brackets beside their age, gender, and education features.

Table 2: Descriptive Statistics for the Estimations

	Obvs.	Mean	SD.	Global mean
Financial Inclusion Indicators				
Formal account	1600	0.220	0.414	0.670
Formal saving	1587	0.073	0.261	0.267
Formal credit	1591	0.027	0.162	0.108
Financial Inclusion Obstacles				
Far away	1329	0.183	0.387	--
Excessively costly	1280	0.234	0.423	--
Absence of paperwork	1353	0.181	0.385	--
Absence of Confidence	1316	0.142	0.349	--
Absence of money	1352	0.519	0.499	--
Religious motives	1344	0.139	0.346	--
The account belongs to a member of the family	1359	0.153	0.360	--
Financial services are not required	1358	0.287	0.452	--
Mobile Money Banking				
Account at a financial institution	1600	0.192	0.394	--
Mobile account	1600	0.063	0.244	0.044
Saving Inspiration				
Business	1576	0.094	0.292	0.139
Old age	1526	0.163	0.370	0.206
Education	1593	0.084	0.277	--
Saving				
Informal saving	1581	0.227	0.419	--
Kept any money in the earlier 12 months	1600	0.376	0.484	0.483
Loan taking inspiration				
For education	1591	0.027	0.162	--
For medical purposes	1565	0.054	0.226	0.095
For farm or business	1586	0.045	0.208	0.111
To purchase a home or land	1589	0.015	0.122	--
Informal Credit				
A store	1586	0.045	0.208	--
Family and friends	1584	0.303	0.459	0.257
Informal savings club	359	0.518	0.500	--
All sources	1600	0.356	0.479	0.474

Basic indicators of financial inclusion, financial inclusion barriers, mobile money banking, saving incentive, informal saving, loan-taking opportunity, and informal credit are among the dependent variables adequately examined in our estimations, seen in this table.

Table 3: The Main Financial Inclusion Indicators Determinants

	Formal Account	Formal Saving	Formal Credit
Female	-0.964***	-0.752***	-0.301***
	(0.082)	(0.121)	(0.145)
Age	0.062***	0.107***	0.106***
	(0.014)	(0.024)	(0..037)
Age^2	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0. 000)
Poorest 20%- Income	-0.391***	-0.426***	0.168
	(0. 123)	(0.190)	(0.214)
Second 20%- Income	-0.500***	-0.735***	0.001
	(0.128)	(0.160)	(0.233)
Third 20%- Income	-0.234***	-0.472***	0.264
	(0.116)	(0.160)	(0.205)
Fourth 20%- Income	-0.185**	-0.418***	-0.032
	(0.109)	(0.145)	(0.219)
Secondary Education	0.522***	0.519***	-0.071
	(0.085)	(0.117)	(0. 169)
Tertiary Education	0.752***	0.306**	0.543***
	(0.159)	(0.171)	(0. 246)
Observations	1,593	1,580	1,584
Pseudo R^2	0.199	0.179	0.064
Log likelihood	-673.926	-342.305	-181.410

***Note**: The components of the main financial inclusion variables in Pakistan are seen in this table as probability estimates. The dependent variables are formal account, formal saving, and formal credit. Independent characteristics such as gender, age, income, and education are explanatory factors, shown in table 1. The standard errors in brackets represent the anticipated marginal impacts. * Significance at the 10 percent level, ** Significance at the 5 percent level, and *** Significance at the 1 percent level.*

The outcome of the probability assumptions for the primary outcome measures of economic inclusion is being shown, together with including their marginal implications. Our dependent variables are formal account, formal saving, and formal credit. All person features have an important connection with financial inclusion. Having a formal account or formal savings has a major effect on being a woman, while formal credit has had no significant impact. All three financial inclusion variables have a nonlinear relationship with age, with Age having a significant positive coefficient and Age 2 having a considerably negative coefficient. To summarize, older persons are more to be expected to be financially contained, however likelihood of being financially incorporated declines after an assured age.

According to the conclusions, more income is correlated with greater financial inclusion. For the three financial inclusion components, the income dummy variables are all negative, with greater coefficients for income quintile dummies reflecting lower income. Education has a positive correlation with all components of economic inclusion. Secondary and tertiary education had

statistically positive correlations for the three financial inclusion variables, with the latter having larger values. Allen et al. (2016) discovered globally and Zins and Weill (2016) conducted a study in Africa and found that wealthier people who would be financially included seem more likely to be educated, and age has a non-linear relationship with financial inclusion.

This study can suggest education and income are the best significant specific factors in determining formal inclusion, depending on how the marginal effect is assessed. With a tertiary education, the likelihood of maintaining a formal account grows to 75.2 percent, saving at a formal financial institution improves to 30.6 percent, and borrowing money from a formal financial institution rises to 54.3 percent. Women, on the other hand, get a 96.4 percent lower possibility of holding a formal account and a 75.2 percent decreased chance of saving in a formal institution. Formal exclusion in Pakistan is influenced by causes other than gender. Therefore, this paper discovered that in Pakistan, being a man, being wealthy, better educated, and adult improve the entrance to formal financial services, with education and income providing a significant function.

Table 4: Financial inclusion obstacles

	Far away	**Expe nsive**	**Absence of doc**	**Abse nce of Trust**	**Absence of money**	**Religious reasons**	**An acc. refers to a family member**	**Fin. services are not req.**
Female	.03	.06	-.05	-.08	.06	-.09	.27	-.23
	.08	.07	.08	.08	.06	.08	.08	.07
Age	.01	.02	-.04	.01	.01	.01	-.00	.03
	.01	.01	.01	.01	.00	.01	.01	.01
Age^2	-.00	-.00	.00	-.00	-.00	-.00	.00	-.00
	.00	.00	.00	.00	.00	.00	-.00	.00
Income-poorest 20%	.06	.03	-.08	-.09	.10	-.02	-.63	-.06
Income-Second 20%	.12	.11	.12	.12	.10	.13	.13	.11
	-.09	-.08	-.13	-.48	-.01	-.08	-.52	.07
Income-Third 20%	.13	.12	.13	.14	.11	.13	.13	.11
	-.01	.01	-.10	-.25	.01	-.10	-.45	.07
Income-Fourth 20%	.12	.11	.12	.13	.10	.13	.12	.11
	-.25	-.20	.04	-.32	.08	-.04	-.18	.22
	.12	.11	.11	.12	.10	.12	.11	.10

Secondary Education	-.11	.06	-.11	.06	-.00	.10	.44	.10
Tertiary Education	.09	.09	.09	.10	.08	.09	.09	.08
	-.44	-.12	-.18	-.00	-.03	-.18	.02	.01
Observations	.30	.24	.27	.25	.21	.20	.23	.22
Pseudo R^2	.01	.00	.02	.01	.00	.00	.05	.01
Log likelihood	-624	-690	-627	-526	-931	-539	-546	-799

This research examined how personal characteristics influence why people don't have a formal account. this study generates estimates to elucidate each of the seven financial inclusion barriers investigated in this study. Table 4 shows the outcomes of the computations. Understanding the change between deliberate and unintentional exclusion is important before getting into our findings, like (Allen et al., 2016) note out. The public selected not to retain a bank account for a diversity of motives, comprising an absence of income or cultural issues. As a result, ego is used to categorize hurdles such as "shortage of money," "religious motives," and "family member has an account." Market failure, on the other hand, generates involuntary exclusion. Involuntary self-excluded hurdles encompass distance, inefficiency, documentation requirements, and low confidence. The distinction between voluntary and involuntary obstacles assists in the formulation of policy commendations.

As a result of this research, it may be stated that women's exclusion is more voluntary. Women in Pakistan are largely excluded from financial inclusion cultural influences, rather than market failures. These findings are in agreement with that of (Aterido, Beck, & Iacovone, 2013), who determined that the present gender imbalance in the financial area is linked to female contribution to the economy rather than the financial segment itself. Money becomes less of a problem as people become older, but new issues emerge: distance, expense, trust, and religion become more complex. Distance, expense, certification requirements, a lack of cash, and affordability are all factors that influence income. For the impoverished, all of these characteristics act as severe hurdles. On the other hand, religious views, the availability of a family member with an account, and an absence of confidence are fewer main obstacles for the deprived. Particularly fascinating are the educational outcomes. Except for having a family participant, all hurdles are negatively related to education. Whatever the obstacle to financial inclusion is, education will reduce it. The major reason that the more educated individuals are not financially included is that a member of the family has an already account, which is a unilateral self-excluded obstacle. As explained previously, the key factors of financial

inclusion in Africa are education and income, which is also connected to a variety of limits, a circumstance that Zins and Weill (2016) also identified in China.

Table 5: Mobile Money Banking Determinants

	Account at a financial institution	Mobile account
Female	-0.8534	-1.2540
	0.0851	0.1651
Age	0.0731	0.0375
	0.0139	0.0230
Age^2	-0.0006	-0.0005
	0.0001	0.0002
Poorest 20 pecent Income	-0.2765	-0.4723
	0.1253	0.1872
Second 20 pecent Income	-0.4029	-0.6674
	0.1311	0.2053
Third 20 pecent Income	-0.2126	-0.3411
	0.1200	0.1702
Fourth 20 pecent Income	-0.2116	-0.0377
	0.1137	0.1456
Secondary Education	0.5608	0.2616
	0.0879	0.1215
Tertiary Education	0.7308	0.3533
	0.1570	0.1854
Opinions Pseudo R^2	0.1916	0.1905
Log probability	-633.2384	-307.05464

This article states the investigation of financial inclusion determinants by investigating how mobile money banking is developed. In Pakistan, this form of banking is getting more and more popular, generating concerns about the quality of those who employ it. In Table 5, compare the indicators of financial inclusion for people who use mobile banking to people who use traditional banking. Overall, the statistics indicate that mobile banking in Pakistan is impacted by the same factors that influence customary banking. Individual features are linked to both kinds of financial services in the same way.

Being a woman declines your chances of taking a phone and an official account (85.34 percent and 125.4 percent, respectively). Women's financial inclusion is not assisted by mobile money. The relationship between time and age is not linear. Both a conventional bank account and a mobile phone account have a negative association with income. You're less likely to use formal and mobile accounts when you're poor (27.65 percent and 47.23 percent for the poorest quintile, respectively). On the other hand, secondary and tertiary education is closely linked to all of the variables. Individuals with a higher

educational level are more possible to have both a mobile and a formal account. In the case of tertiary education, the coefficients are extraordinarily high (35.33 percent and 73.08 percent).

Table 6: Determinants of Saving

	Informal Saving	Saved any money in the past 12 months
Female	-0.2605	-0.2242
	0.0731	0.0666
Age	0.0488	0.0497
	0.0114	0.0099
Age^2	-0.0004	-0.0004
	0.0001	0.0001
Income- poorest 20%	-0.4593	-0.4226
	0.1140	0.1024
Income- Second 20%	-0.2713	-0.3624
	0.1128	0.1048
Income- Third 20%	-0.2444	-0.2370
	0.1079	0.0994
Income- Fourth 20%	-0.2342	-0.2359
	0.1026	0.0950
Secondary Education	0.1061	0.2907
	0.0186	0.0747
Tertiary Education	-0.1307	0.1485
	0.1603	0.1476
Opinions Pseudo R^2	0.0397	0.0480
Log chance	-812.85245	-1007.7528

The objective of the research is to investigate if there are any variations in the factors that affect informal saving. Table 7 shows estimates of informal savings to total savings. The most significant conclusion is that two-person attributes have differing effects on informal versus formal saving. To start with, being a woman improves your risk of saving in a non-traditional financial institution (26.05 percent). This finding demonstrates that Pakistani women rely on informal rather than institutional financing. Informal money, on the other hand, does not appear to compensate for the gender disparity informal finance. A woman's chance of putting money on the side in the previous 12 months is (– 22.42 percent). Second, while education has little effect on informal saving, it does enhance the probability of formal saving. When it comes to discussing informal savings, secondary and tertiary education are irrelevant. For the others, informal and formal savings have the same relationship with age and income. Both types of saving have a non-linear relationship with age. The possibility of being financially incorporated, either properly or improperly

increases with age until an assured age, beyond which it declines. Being poorer reduces your chances of being included in any way. For the poorest people, the likelihood of saving in the last 12 months is (– 42.26%).

Table 7: Determinants of Loan taking motivation

	Education	Medical purposes	Farm or business
Female	-0.2870	-0.2561	-0.6813
	0.1424	0.1104	0.1293
Age	0.0301	0.0337	0.1024
	0.0193	0.0183	0.0297
Age^2	-0.0002	-0.0003	-0.0013
	0.0002	0.0002	0.0003
Income- poorest 20%	0.2554	0.0051	-0.3215
	0.2069	0.1663	0.1949
Income- Second 20 percent	0.0335	0.0118	-0.0975
	0.2316	0.1690	0.1797
Income- Third 20 percent	0.2882	0.0287	-0.0872
	0.2019	0.1632	0.1755
Income- Fourth 20 percent	-0.0032	-0.0208	-0.1316
	0.2159	0.1569	0.1697
Secondary Education	-0.0890	0.0574	-0.1995
	0.1677	0.1209	0.1351
Tertiary Education	0.5845	-0.3687	-0.4949
	0.2454	0.2754	0.3266
Observations			
Pseudo R^2	0.0479	0.0184	0.0815
Log chance	-188.16639	-321.27266	-269.03107

This study stares at the features that affect credit behaviors by focusing on the reasons for seeking a loan. We explore how four potential motivations are related to individual characteristics ("for education", "for farm", "for medical needs", "to buying a home, for both official and informal credit; a flat, or land" for only formal debt). These estimates are shown in Table 8.

First, in terms of three major loan-taking objectives for formal and informal credit, the study discovered that they differ significantly depending on individual characteristics. Only age means a non-linear link with all three types of loan-taking incentives. The likelihood of borrowing for any purpose increases till a certain age, then diminishes. The motives for taking out a loan vary by gender, education, and income.

Being a woman excludes borrowing for farms and enterprises (68.13 percent), but has no effects on the other two motives for borrowing. In a conclusion, men are more likely to receive business loans, but there is no difference between males and females when it derives to loans for education or medical drives.

Income is associated significantly with loans issued for medical determinations across all income quintiles, with larger coefficients for lower-income quintiles. As a result, being impoverished increases the possibility of using the money for several reasons. Only the second, third, and fourth income quintiles had a positive connection with education loan requests. Individuals in these quintiles are more likely to take out loans, to put it another way. Agricultural and business loans, on the other hand, are negatively associated with income, with coefficients decreasing as income rises. As a result, being poorer lowers your chances of relying on loans to attain farm or corporate objectives. Whole, these findings recommend that poorer individuals search for loans for medical and educational objectives more frequently than for business reasons.

Secondary education has a negative association with education incentives and firms or businesses, however, Tertiary education has a positive connection with education purpose but a negative correlation with medical purposes and farm or business. To summarized, expanding one's education decreases the possibility of just employing credit for medical, farm, or commercial purposes while greater the chances of borrowing money for educational purposes.

Table 8: Determinants of Informal Credit

	Store	**Family and friends**	**private lender**	**All sources**
Female	-0.6813	-0.2905	-0.2339	-0.3366
	0.1293	0.0684	0.1398	0.0666
Age	0.1024	0.0273	0.0027	0.0396
	0.0297	0.0102	0.0249	0.0100
Age^2	-0.0013	-0.0002	-0.0001	-0.0004
	0.0003	0.0001	0.0002	0.0001
Poorest 20 percent Income	-0.3212	0.0433	0.3770	-0.0356
	0.1949	0.1034	0.2305	0.1011
Second 20 percent Income	-0.0975	-0.1773	-0.2889	-0.1584
	0.1797	0.1095	0.2108	0.1053

Third 20 percent Income	-0.0872	0.1302	-0.1407	0.0484
	0.1755	0.1016	0.1978	0.0996
Fourth 20 percent Income	-0.1316	-0.0186	-0.0987	-0.0339
	0.1697	0.0987	0.1886	0.0960
Secondary Education	-0.1995	-0.0789	-0.1200	-0.0897
	0.1351	0.0774	0.1512	0.0753
Tertiary Education	-0.4949	-0.2105	-0.4649	-0.3258
	0.3266	0.1576	0.2957	0.1552
Opinions				
Pseudo R^2	0.0815	0.0186	0.0312	0.0237
Log chance	-269.03107	-952.87679	-240.83641	-1016.4528

This research paper examined whether informal credit is changed from formal credit in terms of specific characteristics. We have information on a stock, family and friends, and "another private lender," amongst other non-traditional funding sources. Then, in Table 8, we make estimates for each of these distinct credit sources as the dependent variable. Overall, the survey reveals that borrowing from alternative sources varied by gender and quantities borrowed, but not by age or education. Being a woman decreases your chances of receiving loans from a private lender.

Afterward when informal credit differentiates from formal credit in terms of specific characteristics. Among many other non-traditional funding sources, we have information on stores, family and friends, and one more private lender. Then, in Table 8, we give an estimate for each of these various credit sources as the dependent variable. Overall, the study suggests that borrowing from alternative sources varies by gender and amounts acquired, but not by age or education. Being a woman decreases your likelihood of obtaining loans from a private lender.

Table 9: Determinants of domestic remittances sent

	Sent domestic remittances in the previous 12 months	**Sent domestic remittances: by a financial institution**	**Sent domestic remittances: by a mobile phone**	**Sent domestic remittances: in cash**	**Sent domestic remittances: by an MTO**
Female	-0.7146	-0.6470	-0.7893	0.2865	-0.3532
	0.0915	0.3016	0.3107	0.3406	0.5351

Age	0.0438	0.0840	0.0520	0.1231	0.0658
	0.0148	0.0516	0.0535	0.0525	0.0976
Age^2	-0.0004	-0.0009	-0.0008	-0.0015	-0.0005
	0.0001	0.0006	0.0006	0.0006	0.0011
Poorest 20 percent Income	-0.3396	-0.7316	-0.3025	-1.4448	0
	0.1379	0.3973	0.3737	0.5398	0
Second 20 percent Income	-0.2483	-1.2082	-1.1245	-0.9111	-0.0481
	0.1361	0.4255	0.4348	0.4967	0.6300
Third 20 percent Income	-0.1758	-0.6776	-0.6497	-1.1135	-0.2173
	0.1278	0.3175	0.3231	0.4858	0.6467
Fourth 20 percent Income	-0.1159	-0.4964	-0.3229	-0.6227	0.3482
	0.1197	0.2702	0.2735	0.4937	0.5062
Secondary Education	0.1358	0.3514	0.3589	-0.3301	0.2851
	0.0956	0.2330	0.2311	0.3253	0.4444
Tertiary Education	0.1324	-0.2497	-0.4018	0.4348	0.5083
	0.1685	0.3374	0.3451	0.6611	0.5865
Opinions					
Pseudo R^2	0.0821	0.1190	0.1207	0.1538	0.1144
Log chance	-549.73232	-97.857739	-97.413558	-53.115056	-25.254114

The results of the various variables of domestic remittances sent are shown in Table 9. Being a woman reduces the likelihood of domestic remittances transferred in the last 12 months, including remittances sent by a financial institution, mobile phone, and cash. Age has a significant positive relationship with domestic remittances sent in the previous year via financial institution and cash, however, age square has a strong negative relationship with domestic remittances sent in the previous year via cash. For determinants, all of the dummy variables for income are negative of domestic remittances sent, with negative significance for the first, second and third income quintile dummies. Regarding education, no significant association with determinants of domestic remittances sent has been witnessed.

Table 10: Determinants of domestic remittances received

	In the past 12 months received domestic remittances	Through a financial institution received domestic remittances	Through a mobile phone received domestic remittances:	In cash received domestic remittances	Through an MTO received domestic remittances
Female	-0.4817	-1.2310	-1.2310	-0.4908	-0.3135
	0.0827	0.3390	0.2892	0.2653	0.3890
Age	0.0508	0.1486	0.1075	0.0160	0.0167
	0.0155	0.0566	0.0486	0.0523	0.0780
Age^2	-0.0006	-0.0018	-0.0015	-0.0002	-0.0002
	0.0001	0.0007	0.0006	0.0006	0.0009
Income-poorest 20 percent	-0.2121	-0.5569	-0.7495	-0.9040	0
	0.1269	0.3864	0.3713	0.3981	0
Income-Second 20 percent	-0.2851	-0.6709	-0.4719	-0.6801	0.5275
	0.1322	0.3930	0.3525	0.4494	0.4663
Income-Third 20 percent	0.0761	-0.6481	-0.3766	-0.1982	-0.2685
	0.1166	0.3387	0.2915	0.3878	0.4760
Income-Fourth 20 percent	-0.0800	-0.2196	-0.2148	-0.6034	-0.6469
	0.1150	0.2906	0.2716	0.4102	0.6207
Secondary Education	0.0327	0.4492	0.2064	0.0615	0.2338
	0.0900	0.2329	0.2154	0.2914	0.4013
Tertiary Education	-0.1033	0.2080	-0.3113	-0.6926	0.4836
	0.1743	0.3843	0.3902	0.6174	0.7155
Opinions					
Pseudo R^2	0.0416	0.1834	0.1391	0.0762	0.1021
Log chance	-635.08447	-88.672317	-109.85562	-69.955656	-31.437371

Table 10 presents the results of the various determinants of domestic remittances received. Being a woman significantly decreases the chance of the domestic remittances received in the last year, remittances received through a financial institution, mobile phone, and in cash. Except remittances received in cash and through money transfer offices, age has a positive relationship with domestic remittances received in the prior year, remittances received through financial institutions, mobile phone, and a significant negative relationship

with age square, indicating that domestic remittances are mostly received by older people, but the probability of receiving domestic remittances declines after a certain age. Almost all dummy variables for income have a negative impact on the determinants of received domestic remittances. Only secondary education has a considerable and positive impact on remittances received through financial institutions.

5. Conclusion

Pakistan has a low level of financial inclusion in contrast to the rest of the globe. Considerate on the factors of financial inclusion in Pakistan, is a key topic since it can help to reduce poverty and improve economic progress. This subject is investigated in this research for a big sample of people from 147 countries. The following is a summary of our main findings. First, we discover that being a man, being wealthier, more educated, and older favors financial inclusion to some amount, with education and income having a greater influence. This research endorses the concept that financial inclusion efforts should be oriented towards specific demographic groups, such as women and young people. We display same factors that are driving traditional banking have an impact on mobile banking in Pakistan. As a result, no other pattern can be employed to describe why this different type of banking is employed.

Second, this study displays that financial inclusion obstacles vary depending on individual characteristics. We notice that education has a negative relationship with most barriers, whereas gender has a positive relationship with several barriers in the other way. Third, as evidenced by the various roles of gender and education in informal and formal finance, informal finance's determinants can vary from those of formal finance. Women's informal savings improve while formal savings decline, indicating that Pakistani women prefer informal to formal funding. When it comes to credit, however, this conclusion is incorrect: being a woman decreases informal credit while not influencing formal credit. Education has a successful relationship with both formal and informal credit when it arises to saving, but only formal saving has an affirmative relationship. Fourth, the incentives analysis shows that saving and borrowing have conflicting results. On the one hand, the factors which influence whether or not it should preserve are the same for all three reasons. We have not seen any differences in terms of saving for a business, forage, or education. Individual traits, on the other hand, have a major influence on loan approval. Poorer people seek loans for medical and educational purposes more frequently, Wealthier people, but on the other side, seek loans for business reasons and to purchase a house, an apartment, or land. Educated people are far new likely to take out student loans, but they are less likely to be taking out loans for medical or business reasons. To buy a house or land, they also use formal credit more frequently. Women are less likely to take

out loans for company or land purchases. To summarize, our research provides insights that are particularly relevant to the development of guidelines to promote financial inclusion in Pakistan. It emphasizes the importance of programs that target sets of people who are particularly vulnerable to financial exclusion and highlights the primary challenges they confront. It demonstrates that mobile banking is influenced by the same factors and, as a result, can serve as an alternative for financial inclusion for these categories of people. It emphasizes that in all elements of financial inclusion in Pakistan, Informal financing is not an alternative for formal funding.

In terms of policy significance, this paper sees financial inclusion as providing a growth constraint in a restricted number of Asian nations. Policymakers can help improve formal account ownership by decreasing constraints associated with education and income, as well as promoting the use of formal credit by removing gender and education-related obstacles. This framework should combine the two formal and informal financial markets to build synergy and leverage capacity and ability to bring the most of the country's unbanked individuals into the mainstream financial system. In order to be lengthy, such a policy framework must be politically neutral, financially sound, gender-sensitive, socially constant, and commercially secure.

This study relies primarily on primary data, it would greatly benefit from secondary data on financial inclusion. The future study's scope should be extended to include more other countries, and secondary data should be utilized to do a more thorough analysis.

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