Household Debt Decision in Pakistan: The Role of Socioeconomic Factors and Inheritance

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Abstract: *In recent years, many developing countries, including Pakistan, have made efforts to increase financial inclusion so that their population can easily avail a range of services provided by financial institutions. Debt provision can play an important role in increasing financial inclusion. This study identified social and economic factors which affect entry of households into the debt market. This will also help to derive a borrower profile to target debt provision and financial inclusion. Older people have a higher likelihood of taking debt than younger ones while those who are employed in the agricultural sector have a higher likelihood of taking debt. Inheritance is important to explain life cycle of savings, but it does not affect entry of households into the debt market in Pakistan. This research will help to channel efforts by focusing on the factors affecting debt decisions and demand of debt of households in order to increase financial inclusion through debt.*

Keywords: Household, debt, inheritance, family, financial inclusion, borrower profile
JEL code: D13, DI2

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1. Introduction

Providing right amount of credit to the right people can help to improve financial inclusion and eradicate poverty. Financial inclusion, a term which has gained popularity since the 2000s, refers to providing formal financial services to the poor and vulnerable part of the society at an affordable cost. Financial inclusion is a phenomenon which is more than just a matter of providing access. It covers a wide range of services including opening a bank account, but the most important one is providing finance to an unorganised segment who has to depend on non-formal financial institutions. Formal institutions do not provide services to vulnerable

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segments according to their needs. The vulnerable segment consists of small borrowers who normally do not have access to formal finance due to cost and availability (Rao, 2007).

World Bank has identified financial inclusion as a key to reducing poverty and promoting prosperity. Broad policy areas of 17 publically available National Financial Inclusion strategies that include credit provision for personal purposes and building small and medium enterprises, financial capability and infrastructure and consumer protection (World Bank, 2016). Pakistan's financial inclusion strategy is also aimed at achieving the goal through increased access, provision of credit and raising financial awareness (Government of Pakistan, 2017).

Financial inclusion has remained a focus for government of Pakistan and financial institutions, not necessarily using the same nomenclature. Rural credit policy was aimed to provide credit access to small landowners and the poor but powerful landowners made exploited this policy for their own benefit (Malik, 1999). According to a study, credit/debt provided was not of the right type, not to the right target group as well as not for the right purpose (Malik & Nazli, 1999). However recently, the idea has regained importance. The Pakistan government introduced the national inclusion financial strategy which emphasised on access to financial services, quality of services and reduction of financial exclusion. The goal is to provide credit to every household which seeks credit from any source (Government of Pakistan, 2015)

Financial inclusion is a broad term. Provision of household debt does not equate financial inclusion. However, it is one of the tools to achieve financial inclusion. There are different methods to capture/attract people's money and persuade them to do financial transactions through formal channels. In the scenario of poverty, the only effective method that can be made from supply side is the provision of household debt which can help eradicate poverty. This is in addition, to increasing the span of financial services and public awareness of the former. It will be interesting to know the demand side behaviour when efforts of increasing household debt are being made from supply side in debt-averse Pakistani society.

In this article, different features of household debt decision making are discussed. This will help to create a borrower profile, which is important to target the right audience for effective financial inclusion. Credit and debt are used interchangeably in the article as they have the same intrinsic meaning relating to amount borrowed.

2.   Literature review

This literature review section first focuses on the financial inclusion scenario in Pakistan. One way to improve financial inclusion is through providing credit. After clarifying the role of debt in financial inclusion, different factors affecting the household debt as discussed in earlier studies are examined.

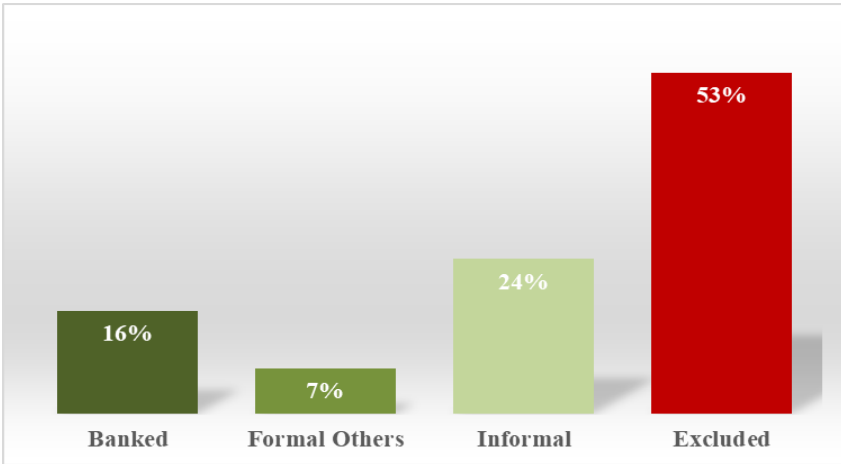### 2.1   *Financial inclusion in Pakistan*

The World Bank classifies Pakistan as a lower-middle-income country. During 2015-16, its economy grew by around 5%. The rate of inflation, 2.79% in 2015-16, has been under control over recent years while unemployment rate declined from 6.2% to 5.9%. The e country's foreign exchange reserves increased to US$ 21 billion during the same period whereby the reserves could finance Pakistan's imports bills for five months (Government of Pakistan, 2016). InterMedia (2015) defined financial inclusion as

> FII's (Financial inclusion Insights) definition of financial inclusion goes beyond "having accessed" a financial service. This comparatively conservative definition requires account ownership with an institution that provides a full-suite of financial services and comes under some form of government regulation. These services include savings, money transfers, insurance or investment. Institutions that only offer loans to consumers, such as some microfinance institutions (MFIs), are not considered to be full-service institutions.

Any person who is using financial services of banks, non-banking financial institutions, and mobile money/digital services is considered as financially included. Non-banking financial institutions include microfinance institutions, committees and post offices. Financial inclusion in any country is measured by the percentage of adults having an account in their name.

According to Access to Finance Survey, in 2015, 16% of Pakistan's population has bank accounts while 23% has access to formal financial services other than banks. In 2009, only 11% of the population had access to formal financial services while 12% used formal financial services (Nenova, Niang & Ahmad, 2009). Figure 1 shows the percentage of population having financial services from different sources.

Figure 1: Percentage of Population Using Different Forms of Financial Services

Source: Pakistan Access to Finance Survey Protal: Transforming Pakistan's Latest Financial Inclusion Data Into Learnings and Insights" 2015

According to Intermedia Wave 3 report, 9% of Pakistan's population are financially included in 2015. Women and people in rural areas lag in financial inclusion compared with men and their urban counterparts. These statistics are provided in Figure 2.

Figure 2: Percentage of Financially Included Pakistani People by Demographics
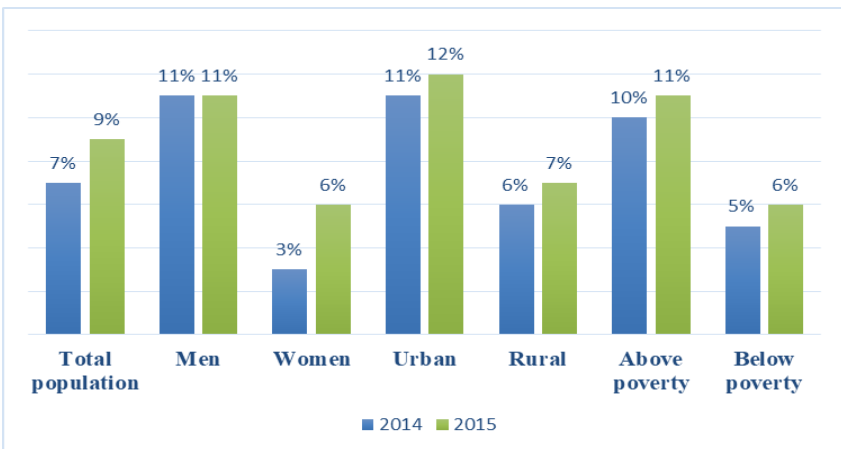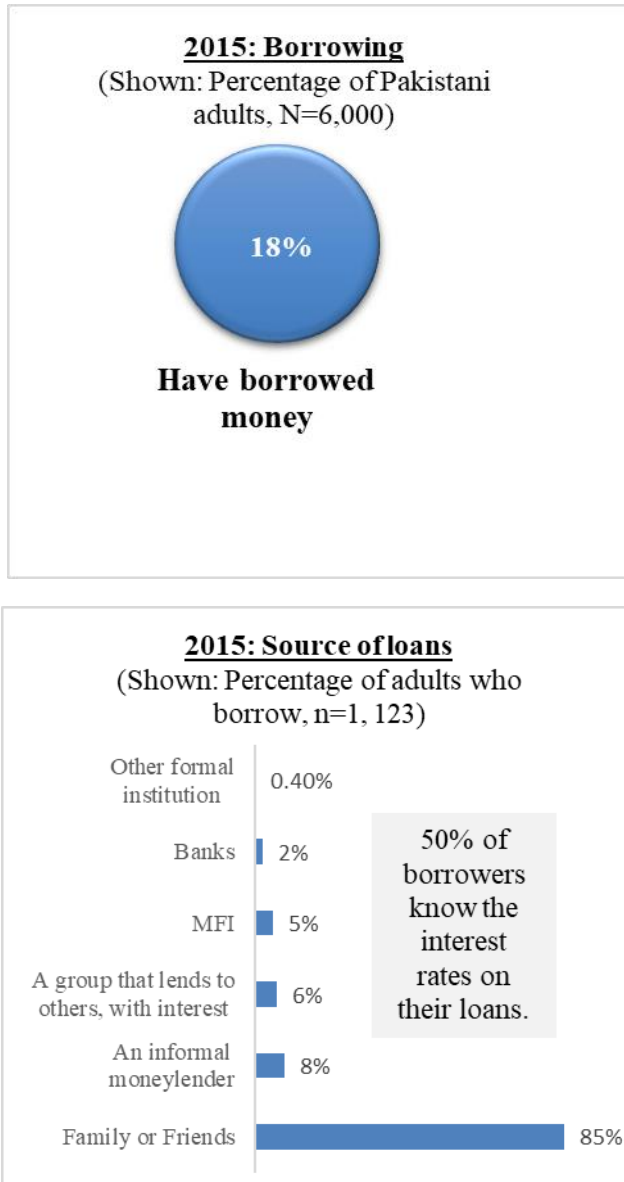

Source: InterMedia, 2015, p. 7

There is a problem of financial inclusion in Pakistan. One way to attract customers is to provide them with quality services, easy opening of bank accounts and widespread access to digital services. Another way to financially include people is to give them easy credit especially to the disadvantaged. Enhancing credit facilities and giving easy credit can not only ensure the institution's profitability but also foster national growth and sustainability. Increasing span of and access to credit services will be helpful for credit providing institutions in order to increase their profit. On the other hand, it will also increase the standard of living of individuals and economic growth (InterMedia, 2015).

Pakistani households generally do not use formal financial services. They keep their savings at home and borrow from informal sources such as friends or family in case of emergency (Nenova et al., 2009). There is a very low percentage of people borrowing from formal financial systems and many people who are borrowing are taking loans from their friends and family. According to Nenova, Niang and Ahmad,

> A third of the population (35 percent) has a loan or credit, but only 1 in 14 received it from the formal sector. Almost half of the Pakistanis (44.9 percent) have never contracted a loan (55.5 percent of women and 33 percent of men). A strong aversion to debt and associated bias against borrowing is observed and shared across gender, rural areas, and income levels (61.3 percent). Religious objections to borrowing, while expressed by a third of the population, do not represent such a significant effect on borrowing as the aversion bias, and come out insignificant in regressions (2009, p. 49).

In 2015, only 18% of Pakistanis borrowed, while those who sought loans from formal sources other than banks account for around 0.4%. The goal is to increase the percentage of people taking debt from informal sources to formal ones and to attract more households who want to take debt but are hesitant to take it from formal sources (InterMedia, 2015).

Figure 3: Percentage Distribution of borrowings of Pakistani households by categories

2015: Borrowing
(Shown: Percentage of Pakistani adults, N=6,000)

18%

Have borrowed money

2015: Source of loans
(Shown: Percentage of adults who borrow, n=1, 123)

Other formal institution	0.40%
Banks	2%
MFI	5%
A group that lends to others, with interest	6%
An informal moneylender	8%
Family or Friends	85%

50% of borrowers know the interest rates on their loans.

Source: InterMedia, 2015, p. 26

Financial inclusion is important for sustainable inclusive growth and development of a nation. Sustainable Development Goals also recognise the importance of improving access to financial services in order to reduce poverty. Debt provision has an important role in achieving desired financial inclusion as it helps households attain financial stability, invest, increase their income and enjoy more services provided by formal financial institutions. Debt provision is the only effort that can be made from formal institutions apart from attracting households to deposit their money with them. According to Chibba (2009), traditional strategies such as aid and sound macroeconomic policies are not enough for financial inclusion. Financial inclusion is important because it can play an important role in eradication of poverty, especially in developing countries. Providing access and increasing household debt has also been included in in Pakistan's national strategy formulated in 2015 in collaboration with World Bank (Government of Pakistan, 2015) in order to achieve the Sustainable Development Goal 2030 of eradication of poverty. Debt has undoubtedly intrinsic negative meaning but it can be useful. (O'Neill, Prawitz, Sorhaindo, Kim, & Garman, 2006). If used wisely, debt can help to supplement income and increase inclusive and sustainable growth in the economy (Bertola, Disney, & Grant, 2006, p. 1).

Financial institutions are also researching to offer tailor-made credit products to attract customers who are not wealthy but have the ability to repay. This study examines the characteristics of people who resort to formal financial institutions for loans. This information will be useful for such institutions to create effective strategies and policies in order to reach out to right customers for effective financial inclusion.

2.2   *Factors affecting debt decision*

Determining factors affecting the demand for debt is very important in order to attract customers who are currently accessing loans from informal sector. Banks either do not offer credit to needy households considering them marginally poor or the households find the offered credit too costly. Different factors are at play which affect household decisions to take debt. Previous studies showed demand for and amount of household debt increased with age (Del-Río & Young, 2005). Age squared was found to be negatively related which means that there is increasing trend with decreasing rate (Fabbri & Padula, 2004; Magri, 2002; Yilmazer & DeVaney, 2005).

Marriage also plays an important role. Unmarried people hold more debt than others (Del-Río & Young, 2005). Marriage may also have a positive effect on credit amount (Duca & Rosenthal, 1993). The relation of marriage to credit is ambiguous. Household size may also affect the amount

of debt as the expenditures of larger household sizes are usually greater (Fabbri & Padula, 2004; Livingstone & Lunt, 1992; Magri, 2002) Loan/debt demand is also affected positively by household size (Togba, 2012). Income plays an important role in determining the demand for debt. Studies found people with higher income have more debt as they have a greater ability to repay (Crook, 2006; Petrides & Karagrigoriou, 2008). Income was mostly found to be positively related to the amount of debt (Crook, 2006; Del-Río & Young, 2005). The importance of type of employment cannot be denied. A person may incur more debt in order to pay for his/her expenditure after losing a job (Duca & Rosenthal, 1993). A person who is employed in the formal sector may take more debts as he can easily pay back because of certainty of his prospective income (Crook, 2006; Tudela & Young, 2005).

The prospects of good earnings improves with education (Crook, 2006; Kim & DeVaney, 2001). Having large financial assets means they can be used as a mortgage and the person can apply for a big amount of loan. Thus, financial assets can have a positive relationship with debt (Leonard & Di, 2014). Life savings leads to accumulation of wealth but intergenerational transfers or bequests also play a major role in the accumulation of wealth. According to life cycle savings model, individuals save during their working period and dissave in their old age (Modigliani & Brumberg, 1954). Due to uncertainty in life caused by death and lower dissaving rate in older age, some of the accumulated wealth is transferred to the next generation, called bequests. A person having a bequest will manage finances differently compared with those having zero bequests because the amount of wealth differs (Davies, 1981; Yaari, 1965). Intergenerational transfers or bequests are the most neglected in literature. Simple life cycle model ignores the bequest and considers it a departure from the conventional model. However, the life cycle model downplays this by giving incomplete picture whereas adding bequests increases the understanding of behaviour of consumer (Gale & Scholz, 1994). Bernheim, Shleifer, and Summers (1985) proposed that bequests should be added in the conventional life cycle model which can also be used to manage borrowing constraints (Behrman, 1997; Bernheim et al., 1985).

There is no clear conceptual model until now which can be generalised (Livingstone & Lunt, 1992). Several other variables which affect debt have been identified through research. Different psychological and religious factors also affect household debt decision. Psychological factors such as attitude towards debt, social comparison, money management styles and inter-temporal choice play an important role in household debt decisions (Lea, Webley, & Levine, 1993; Livingstone & Lunt, 1992). Religion is also considered to be a constraint, especially in Muslim households. According to Nenova et al. (2009), in Pakistan, religion does not play a major part in

debt aversion. Only one third of the populations is informed about the fact that interest rate charged on debt is against Islamic principles whereas only half of the informed persons refrain from debt for this particular reason.

Every country has its own contextual and situational factors. There always remains limitations in the generalisability of one country's results to another. It is also important to know what affects the demand for credit so that providing right credit to right audience can help improve financial inclusion.

3. Methodology

In 2009, the government of Pakistan announced its financial inclusion strategy. The focus of the study is on socioeconomic factors to identify factors affecting debt decision of households so that effective financial inclusion can be achieved through debt provision.

3.1 *Analytical framework*

All major factors discussed in the literature have been used to construct the study's analytical framework.

Figure 4: Analytical framework
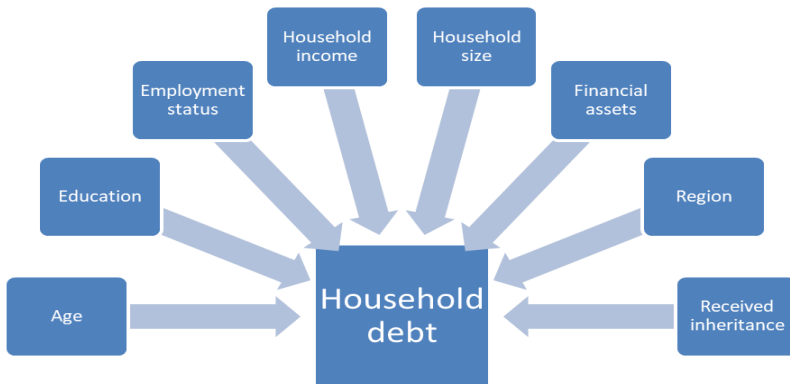
Studies show demographic and socioeconomic factors such as age, marital status, gender, employment, household size, region, income, inheritance and financial assets directly affect household debt decision and demand for debt. Gender and marital status have not been included in the analysis due to their skewed nature which may give biased results. More

than 90% of the households are male and married. The effect of these factors on household debt decision in context of Pakistan is tested in this study through a household survey.

3.2   Data source

A national representative Household Integrated Expenditure Survey (HIES), collected and provided by Pakistan Bureau of Statistics (PBS), was used. The PBS used two-stage stratified sampling for data collection. It had its own sampling frame where enumeration blocks containing towns and cities were identified from the map.

HIES used a two-stage stratified sampling design for this survey where at first stage, primary sampling units consisting of enumeration blocks were selected based on probability proportion to size (PPS) technique and households are used as a measure of size (MOS). In the second stage, 12-16 households were randomly selected from each enumeration block. In this article, pooled data of three survey rounds in the year 2005/06, 2007/08 and 2013/14 were used. In pooled cross section, the random sample of different units in different time periods is used. The reason for selecting these survey years is that only in these rounds, information about inheritance is available. According to Baltagi and Griffin (1997), pooling data is better and more efficient especially compared with the disadvantage of bias introduced by heterogeneity. Advantages include better forecasting and easy comparison of change.

3.3   Model specification

The binary logistic regression has been used to specify the model.

$$\delta(x) = P(Y = 1|X = x)$$
$$= \frac{\exp(\beta_o + \beta_1 x_1 + \cdots + \beta_p x_p + \sigma)}{1 + \exp(\beta_o + \beta_1 x_1 + \cdots + \beta_p x_p + \sigma)} \tag{1}$$

"Y" is a vector for dependant variable having an outcome of either 1 or 0 and "X" is a vector for independent variables ranging from 1 to p. β is the coefficient of estimates and σ is the error term. Based on the literature, the independent variables which are included in the analysis are age, education, employment status, household size, financial assets, household income, region and inheritance.

In order to see the demand of debt, the model is specified using Ordinary Least Square.

$$Y = \beta_o + \beta_1 x_1 + \cdots + \beta_p x_p + \sigma$$

"Y" is the vector for dependent variable which is the amount of debt people have borrowed. X, σ and β represents the same as above. The independent variables are same as the above model. In both models, the interaction terms have also been tested based on the literature.

3.4 Variable measurement

Data obtained is related to heads of households only. The information about some of the variables were available at the household level so it was reasonable to incorporate household characteristics and personal characteristics of household head in one model. The head of the household is usually the eldest, financial contributor or decision maker. Therefore, it is reasonable to assume decisions on taking debt is in the hands of the head of household.

The binary dependant variable of household debt was used as a proxy for the demand for debt. Code 1 refers to those who had taken debts and zero otherwise. In the later analysis, the amount of debt is also used as dependent variable. Debt is any amount of loan that people have taken so far from any source. The database lacks information about the source of the debt. In Pakistan, the limit for personal loan is PKR 25,000-2 million (1 USD = 0.01PKR) whereas the upper limit can be extended to 5 million if the credit history of existing customer is good (State Bank of Pakistan, 2016). Model A shows people having debt of less than PKR 25,000 taken from the informal sector and those with a debt of PKR 25,000-2 million taken from any source. Throughout this article, household debt, loan or credit are used interchangeably.

Age is one of the associators of debt and presented as a continuous variable. It is divided by 10 in order to make the coefficient interpretable. A change of 10 years signifies a change from infancy to teenage or from young worker to mature worker or from mature worker to retired. Age can have a curvilinear relationship with household debt (Duca & Rosenthal, 1993). In order to see the curvilinear relationship, age square was added into the model. Education is measured by the highest class passed and for analysis, it has been divided by 5 in order to see the effect on household debt through 5 years change in education. A change of 5 years signifies passing primary level, or having a degree.

Household size indicates number of members in the household. Income indicates the total annual income of the household. Household heads were also asked about their employment status. In this article, employment status has three major categories namely employer, paid employee and agricultural employment. Households have also reported on market value of their assets, presented as the financial assets. Financial assets were converted into log form. Respondents also indicated receipt of their inheritance. Region refers to area of residence where 1 represents urban and 0 represents rural.

As it has long been known that categorizing variables that have been measured quantitatively loses information and can weaken the model (Haitovsky 2001, Heitjan 1989), we have not categorized the continuous variable unnecessarily.

4.   Findings

Model 1 in Table 1 includes all the factors affecting the demand for debt. Model 2 includes interaction of education and total income because better education may lead to better income and affect debt levels (Duca & Rosenthal, 1993). Interaction of inheritance and financial assets has also been considered as receipt of inheritance adds to the financial assets of the household. Both interaction terms turned out to be insignificant. Being a paid employee ensures continuous stream of income where being employed in agricultural also affects income. Time effect on the slope was observed using slope dummies. Compared with 2005/06, the odds of having household debt were lower in 2007/08 and 2013/14.

Table 1: Binary logistic regression predicting household debt demand by household-level attributes

Variables	Model 1	Model 2	Model 3
	Odds ratio/SE	Odds ratio/SE	Odds ratio/SE
Age (age/10)	1.013*	1.012*	1.012*
	(0.010)	(0.010)	(0.010)
Age square	1.000	1.000	1.000
	(0.170)	(0.123)	(0.116)
Education (Edu/5)	0.642***	0.643***	0.645***
	(0.017)	(0.027)	(0.047)
Employment (paid	0.984***	0.937***	0.937***
employee against others)	(0.127)	(0.007)	(0.007)
Employment (agricultural	1.762***	1.774**	1.775**
employment against others)	(0.042)	(0.163)	(0.163)
Reference category:			
Employment (employer)			
Region	0.945	0.935	0.935
	(0.135)	(0.134)	(0.134)

Table 1: (Continued)

Received inheritance	1.205	1.720	
(yes/no)	(0.338)	(5.402)	
Household income (Ln)	1.130***	1.143**	1.143**
	(0.0284)	(0.0682)	(0.0683)
Household financial assets	0.864***	0.862***	0.862***
(Ln)			
	(0.0152)	(0.0155)	(0.0155)
Household size	1.164***	1.161***	1.162***
	(0.029)	(0.029)	(0.029)
Education*Household		0.984	0.984
income		(1.005)	(1.005)
Inheritance*Financial		0.972	
assets		(0.238)	
Paid employee*Income		1.433***	1.433***
		(0.070)	(0.070)
Employed in		1.179***	1.179***
agriculture*Income		(0.060)	(0.060)
Year (2007/08)	0.650***	0.640***	0.640***
	(0.031)	(0.030)	(0.030)
Year (2013/14)	0.924	0.879**	0.878**
	(0.046)	(0.045)	(0.045)
Constant	0.365***	0.927	0.927
	(0.118)	(0.667)	(0.667)
AIC	18555.45	18503.27	18599.07
BIC	18656.28	18635.13	18676.23
Goodness of fit (chi-square	874.25***	814.08***	873.86
value)			
Observations	17,268	17,268	17,268

Standard Error in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$
Dependent variable: Household debt where 1 represents its presence and 0 presents its absence

Model 2 is the final Model selected on the basis of Akaike Information criteria (AIC) and goodness of fit. The odds of age show that with every 10 years in of age, there are around 1% more odds to take household debt. The odds of age square show the absence of a quadratic trend in age. It is 26% less likely that with every 5 years increase in education, odds of taking household debt increase. It is around 77% more likely that people who are employed in the agricultural sector have higher household debt demand than others. It is only 7% times more likely that people who are paid employees have higher household debt than employers. Inheritance is important when explaining life cycle of savings, but in this analysis, inheritance turned out to be insignificant. It is 14% more likely that people with income higher decide to have more debt. It is 86% less likely that those having higher financial assets demand for more debt. The interaction between paid employment and income is significant and positive as the paid employment ensures better earnings prospects and income. The findings are also supported by other studies (Crook, 2006).

Table 2: Investigation of socioeconomic factors affecting the household debt through Ordinary Least Square regression

VARIABLES	Model A		Model B		Model C	
	(1) Household debt	(2) Household debt	(3) Household debt less than PKR 25,000	(4) Household debt less than PKR 25,000	(5) Household debt between 25,000 & 2,000,000	(6) Household debt between 25,000 & 2,000,000
Age (age/10)	0.09***	0.10***	0.11***	0.07***	0.17***	0.13***
	(0.001)	(0.001)	(0.009)	(0.009)	(0.009)	(0.009)
Age square	-0.000	0.000	-0.000	-0.000	-0.000	-0.000
	(0.100)	(0.200)	(0.110)	(0.230)	(0.160)	(0.340)
Education (edu/5)	0.129***	0.133***	0.042*	0.048*	0.065***	0.066***
	(0.026)	(0.015)	(0.025)	(0.027)	(0.024)	(0.025)
Employment (paid employee against others)	-0.773***	-0.768***	-1.129***	-1.296**	-0.182***	-0.193***
	(0.043)	(0.052)	(0.041)	(0.603)	(0.038)	(0.045)
Employment (agricultural employment against others)	3.559***	3.829***	1.279***	1.262**	2.260***	2.267***
	(0.058)	(0.561)	(0.061)	(0.619)	(0.050)	(0.528)
Reference category: Employment (employer)						
Region	0.026	0.047	0.018	0.024	-0.038	-0.022
	(0.037)	(0.036)	(0.036)	(0.035)	(0.033)	(0.033)
Received inheritance (yes/no)	-0.054	-0.770	0.090	2.263	0.080	-1.750
	(0.270)	(3.468)	(0.220)	(3.899)	(0.265)	(3.123)
Household income (Ln)	0.447***	0.545***	0.114***	0.197***	0.236***	0.258***
	(0.022)	(0.058)	(0.023)	(0.063)	(0.020)	(0.056)
Household financial assets (Ln)	0.246***	0.225***	0.033*	0.021	0.132***	0.124***
	(0.018)	(0.018)	(0.018)	(0.018)	(0.016)	(0.016)
Household size	0.067***	0.061**	0.049**	0.039*	0.018	0.018
	(0.024)	(0.024)	(0.023)	(0.024)	(0.022)	(0.022)
Education*Household income		0.003		-0.010		0.009
		(0.005)		(0.016)		(0.015)

VARIABLES	Model A		Model B		Model C	
	(1) Household debt	(2) Household debt	(3) Household debt less than PKR 25,000	(4) Household debt less than PKR 25,000	(5) Household debt between 25,000 & 2,000,000	(6) Household debt between 25,000 & 2,000,000
Inheritance*Financial Assets		0.054		-0.180		0.140
		(0.271)		(0.314)		(0.238)
employee*Income		-0.288***		-0.102*		-0.172***
		(0.048)		(0.056)		(0.044)
Employed in agriculture*Income		0.043		0.103		-0.040
		(0.047)		(0.153)		(0.045)
Year (2007/08)	0.093**	0.070	-0.006	-0.027	0.049	0.044
	(0.047)	(0.046)	(0.039)	(0.039)	(0.047)	(0.047)
Year (2013/14)	0.231***	0.149***	0.205***	0.144***	0.036	0.010
	(0.049)	(0.050)	(0.049)	(0.050)	(0.044)	(0.045)
Constant	1.432***	0.806	7.039***	6.372***	6.310***	6.255***
	(0.320)	(0.708)	(0.321)	(0.744)	(0.308)	(0.699)
AIC	13304.57	13230.36	3249.285	3228.654	5907.263	5887.759
BIC	13368.19	13319.43	3303.156	3304.073	5965.459	5969.234
Goodness of fit (chi-square value)	213.59***	156.96***	16.09***	13.51***	57.68***	42.42***
Ramsey test (chi-square value)		1.82		1.32		1.44
Breush Pagan test (Chi-square value)		0.08		0.99		1.27
Observations	10,857	10,857	4,618	4,618	5,785	5,785
R-squared	0.310	0.323	0.283	0.299	0.173	0.182

Standard Error in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Dependant variable: Amount of household debt

For reference of currency: 1 PKR=0.01USD

Note: Null hypothesis for Breush Pagan Test: Constant variance

Null hypothesis for Ramsey test: No omitted variable bias

Table 2 shows age, education, paid employment and agricultural employment, household income, financial assets and household size significantly affect amount of debt and these findings are supported in literature (Livingstone & Lunt, 1992; Magri, 2002; Togba, 2012). Age is significant in influencing the amount of debt taken. Life Cycle Income Hypothesis (LCIH) also supports the increase of debt with age (Barba & Pivetti, 2009; Lusardi & Tufano, 2015). Inheritance is important when considering life cycle behaviour but data shows that the receipt of inheritance is insignificant to affect any amount of debt. With increase of 5 years in education, household debt less than PKR 25,000 increases by around 4% whereas any amount of debt increases by around 13%. However, with better education, households decide less to take debt but once they do, their amount of debt increases with education. Being paid employee lowers the amount of debt compared with an employer. Being agricultural employee increases the amount of debt by percentages. The findings of this study show household income and assets positively increase household amount of debt which are supported by other studies (Crook, 2006; Del-Río & Young, 2005; Petrides & Karagrigoriou, 2008). The findings also suggest the same. The effect is more positive when the amount of debt is higher. The interaction between paid employment and income is negative and significant which may be due to the fact that with higher income, households can manage finance and pay back their debt. Higher income and being paid employee may make the latter eligible for the debt.

5.   Discussion and Implication

The government of Pakistan made financial inclusion a national strategy. There are some unique and situational factors present in every area that determine the debt behavior of households. Analysis of this study show that age, education, employment, household income, financial assets and household size directly affect the decision of household debt in Pakistan. The interaction of employment and household income is also positive and significant. The paid employee having higher income higher is more likely to decide to have household debt. The same factors also affect the amount of household debt. Paid employees are more more likely to decide to take debt compared with employers though their amount of debt tends to be lower. In Pakistan, borrowing is not very common. Increasing borrowing will not only help people to fulfil their financial needs but will also help the country to achieve their financial inclusion goals.

Agricultural employees are likely to decide to take debt compared with employers. The income in agricultural sector is quite varied as income

depends on the amount of crops which in turn depends on weather and many other factors. Also, the inflows and outflows in agricultural sector may not match, which means more people take debt. If formal financial institutions give agricultural loans on easy terms and innovative operational design, then financial inclusion can also be increased along with the growth of the agricultural sector. The Government should also make policies to facilitate credit provision in agricultural sector. People having higher income are more likely to decide to take debt and their amount of debt is also higher. People with higher income can easily qualify for loan from formal institutions due. Thus, households having higher annual income are more likely to take loans. Disbursement of loans with easy terms and conditions can play a significant role in increasing financial inclusion and the standard of living of people. The same goes for financial assets. Having a paid employment has higher likelihood of taking debt. Inheritance does affect the household debt decision and household amount of debt. Thus, any inheritance tax or subsidy by government, unlike other countries, will not affect household debt.

Unfortunately, not every country has a comprehensive survey database for studying loan behaviour at a specific time and over period of time. So, there is a lot of room for future research in the specified field. There is a gap in literature as more studies focus on developed. Future research can examine psychological factors affecting household debt in Pakistan.

6.   Conclusion

In Pakistan, most people take loans from the informal sector (Nenova et al., 2009), which lacks the capacity for sustainable growth. If the capacity of banks is built to provide easy and needs-based d loan products, similar to the informal sector, then debt market base can be extended and people will be more receptive towards them. It is important to know how the demand for debt can be triggered. In the household survey conducted by Pakistan Bureau of Statistics, people were asked different questions out of which few were about debt. In this article, we tried to figure out different factors which can trigger the amount of debt. If credit is designed based on these factors, they can increase the demand for credit.

There is the likelihood that people who have a high income, small financial assets, employed in the agricultural sector and less educated may decide to take debt. However, people with higher education, higher income, higher financial assets, being agriculturally employed and elderly people may take higher amount of debt. Modigliani (1986) ignored intergenerational transfers while calculating wealth. However, intergenerational transfers play an important role in the accumulation of

wealth and sometimes help to restrain borrowing constraints (Kotlikoff & Summers, 1986). The present study showed intergenerational transfers are not important in Pakistan. Ignoring them will not make much difference when determining the demand for household debt in Pakistan.

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