

http://www.scirp.org/journal/ib

ISSN Online: 2150-4083 ISSN Print: 2150-4075

# An Analysis of Household Saving and Investment Behavior among Different Income Groups in Urban Area of District Peshawar

## Humaira Syed<sup>1</sup>, Shaheen Nigar<sup>1</sup>, Sami Ullah<sup>2</sup>

<sup>1</sup>Institute of Development Studies, University of Agriculture, Peshawar, Pakistan <sup>2</sup>Department of Economics, University of Peshawar, Peshawar, Pakistan Email: sami00212@yahoo.com

How to cite this paper: Syed, H., Nigar, S. and Ullah, S. (2017) An Analysis of Household Saving and Investment Behavior among Different Income Groups in Urban Area of District Peshawar. *iBusiness*, **9**, 188-202. https://doi.org/10.4236/ib.2017.94013

Received: November 2, 2017 Accepted: December 23, 2017 Published: December 26, 2017

Copyright © 2017 by authors and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0/





#### **Abstract**

The author conducted a study to analyze the saving and investment behavior among different income groups of the urban households of Hayatabad, Peshawar. A sample of 201 respondents from different phases was interviewed. The proportional allocation method was used to divide sample households according to the plot size. The findings showed that the level of literacy was 97.51% in the study area whereas the employment status of the households was 99.5%. The average household size was 20.5% with an average monthly income of Rs. 87,333. Average household saving was Rs.12,900/month and average investment was Rs.7649/month. The author concluded that households saving and investment over there are affected by a number of variables like income, education, employment status, the number of dependents, assets etc. The study recommended that more employment opportunities should be created to minimize the negative impact of dependents on household saving and investment. Secondly, high expenses of children's education could be reduced by providing low-cost education; as a result, a large portion of income could be saved and can be invested further. Moreover, risk should be minimized to motivate people to invest in different fields.

#### **Keywords**

Household Saving, Household Investment, Urban Households, Demographic Variables

#### 1. Introduction

In order to analyze saving and investment behavior of household among different income groups, a study was conducted in urban area Hayatabad town of Pe-

shawar district in the year 2014. Through proportional allocation method 201 respondents were interviewed through a well structure questionnaire. It was find out that different variable like income, education, employment status, assets and number of dependent etc. effects saving and investment behavior of household.

Wealth is the collection of resources. Adam Smith defines wealth as "the yearly produce of land and labor of the society". While income is regarded as an economic possession that is generated in return for a service rendered by an individual or through investing capital. Income is consumed to fuel daily expenses. Domestic saving mainly consists of three parts, *i.e.* household saving, corporate saving and public saving. Household sector saving makes up the biggest share of gross domestic saving. The Household saving contribution in domestic saving is more than 80% out of total share [1]. For several years, Household savings are contributing the largest proportion of domestic or national saving. In developed nations saving ratio is 15 to 20 percent, while household savings are about 10 to 15 percent. Among the Asian countries, the domestic savings are between 20 to 25 percent of the income [2].

Saving is important for maintaining a higher level of investment, which is a key determinant of economic uplift [3]. People invest in order to make money. Investment is done to gain larger returns than the cost of borrowing. There are several mediums where people can invest such as purchasing Gold, Bank Accounts, National Savings and Investments, Bonds and Gilts, Property, Equities (shares), Investment "Funds". According to Keynesian theory at equilibrium income level both the saving and investment are equal [4]. Most of people in developed and developing economies believe that saving and investment act as a financial safety for them. National Savings are of crucial importance *i.e.* maintaining a higher level of investment which is a key factor for economic up-raise [5].

Households are liable for a considerable share of saving in both developed and developing countries. More savings draw out more investment. Among various income groups, household behavior regarding saving and investment are different. It usually depends on choices or preferences, disposable income and wealth of the households. Saving is affected by the age structure of the population which in turn affects the development of a country through investment. It was found that people of age group between 30 to 50 years are more interested in investment issues than people in other age groups [6]. According to Reference [7] there is a significant inverse relationship between dependency rates and saving rates in less developed countries. Education being an important component as it enhances the saving efficiency of people and they can better invest their money. Highly educated people can better understand inflation and are able to protect themselves from it. Well educated families save for benefitting their children while less educated families save to maintain their current income [8].

The majority of rural population in Pakistan is poor and is having a low standard of living but savings of rural people are higher than the national average [9]. The reason for it is low living expenses in rural areas. Moreover, they do not

save after spending on their essential needs but they save by reducing their basic needs. In urban areas people having low income mostly save through keeping cash at home and in "committees", commonly known as Rotating Credit and Savings Associations. The low-income group uses several means of investment like cash, prize bonds, gold, and land. Moreover, women and residents of urban areas significantly take part in committees. This participation increases with education levels and declines with age [10].

Pakistan's performance regarding saving is not very remarkable. As a result, Pakistan mainly relies upon foreign capital for fulfilling the gaps between domestic saving and investment. The Saving rate has declined over time from 13.54 percent in the 1960s to 8.44 percent and 9.65 percent in 1970s and 1980s although it has been raised during 1990s [1]. From the last many years, Pakistan has sustained growth of more than 6 percent, but its execution regarding saving has been worse. Over the years 1999 to 2002 National Savings remained between 14.1 to 15.4 percent of GDP, which was about 33 to 50 percent less than saving rate in Sri Lanka and India etc. [3]. The Govt of Pakistan has introduced many schemes in order to raise aggregate savings and investments but due to low incomes, uneconomical nature of people and inappropriate application of policies, Govt failed in achieving the desired objectives.

#### 2. Literature Review

Reference [11] examined the effects of various socio-economic and demographic factors on household savings in Pakistan. They used macro-level data on household income and expenditure from Household Integrated Economic Survey (HIES) in 1984-1985. It was found that average income and saving of urban households are substantially higher than rural ones despite the fact that rural used to save more. The dependency ratio and different levels of education have a negative impact on household savings. There is no link among savings, service status and work of the household head, however, saving increases with age factor. The value of MPS was 0.22 in urban Pakistan and 0.37 in rural Pakistan.

Reference [12] analyzed National saving rates of India and Pakistan for the time period 1960 to 1988 using a regression model including major macroeconomic variables. The information for India and Pakistan for the time period 1960-1988 indicated that on average basis Pakistan performed better than India in export ratio, real growth, and interest rates as well as gross aid inflow. The National saving rate in India is 18.8% whereas in Pakistan it is 10.7% whereas the distinction is 7.9%.

Reference [13] answered the question that masses in Pakistan are not as good savers as in India. He said if we study deeply the economic and social behavior of people in Pakistan, we might find out some negative factors that are against a prospering saving culture in the country. Our saving institutions are unable to create a saving culture in the country. According to several national and international estimates selected big people of the country have transferred between \$50 billion to \$100 billion, most of which was ill-gotten money to western countries.

This huge capital flight has severely curtailed the value of Pakistani currency and shattered the investment environment.

Reference [14] examined that there is a lot of literature related to the role of domestic savings and investment in promoting economic growth in the elongated pace of time. The study showed link among investment, overseas inflows and saving for India by using statistics related to private and public savings and investment. The preface results show that there exists significant and complicated relationship between major three factors under study. Government and private savings, investment and foreign inflows are observed to be forcing variables for private (non-household) savings and investment in the long run. The study also showed that suitable policies relating Budget deficits and households, financial sector modifications and foreign inflows for promoting economic growth should be devised.

Reference [3] found that in the development of a country the role of saving and investment cannot be blown up. The information regarding saving behaviour of rural and urban households was taken using information of HIES. This concludes that in the country under study the saving behavior is influenced by a number of demographic factors but the key role is played by household income.

Reference [15] examined household saving behavior in urban and rural Mardan. Urban households used to save more as compared to rural counter parts. The results revealed that main cause of low saving was high consumption expenditure of households and high inflation rate. Moreover, the key factors affecting the saving behavior of the families were literacy, income and number of dependents in a family. The household size and dependency ratio in a rural area was higher in comparison with an urban area. Literacy ratio in an urban area was high while low in the rural area. The average monthly income in the urban area was more as that of monthly income in the rural area. Among different other components of consumption spending, mostly income is spent on foodstuff which was about 44% in urban area and 52% in rural area. Whereas monthly saving was higher in urban area to that of rural area.

Reference [16] conducted a study to explore income, consumption and saving of formal and informal Turkish households using 2002-2006 Household Budget Survey. The households were divided according to their location *i.e.* urban and rural areas and it was found significant changes in the saving behavior of the urban and rural households. The analysis showed that due to high-income uncertainty of the informal households, they were likely to save more as a precautionary purpose.

Reference [17] analyzed the saving behavior of household in urban and rural areas of District Muzaffarabad, AJ&K. For empirical analysis, an econometric model is constructed to study the effect of income, family size, locality and education on saving behavior of households of District Muzaffarabad. The result concluded that there exist a strong relationship between the saving behavior of households and proposed variables. Moreover, income and locality have a positive effect on saving behavior of household whereas; education and family size

have a negative effect on saving behavior of the household. It means whenever income of people increases, saving will also increase and people in rural areas save more than people in urban areas. On the other side, large family size and more educated people save less. They recommended that Govt of AJ&K should work on job creation and subsidize the general price levels.

Reference [18] examined the investment behavior of the middle-income class households in Nagpur. The study has been conducted to find answers to few important questions such as on preferences of investment instruments, investment pattern and about various aims of investment of middle-class households also about the increase in savings and its reasons. It is only the income of households which has a direct influence on investment preferences but also the age group to which the head of household belongs that effect the choice of Investment Avenue. In this study, attention is also paid towards finding the difference in choice of investment avenues in different age groups and income classes of the middle-income class segment in Nagpur.

Reference [19] analyzed that in the presence of perfect mobility of capital savings increases in one country as a result investment increases in many other countries. This study presents data for the years 1970-2009 tests existence of capital mobility and fails to find a direct relationship between domestic saving and domestic investment. One of the determinants of investment is found to be Trade openness.

Reference [20] stated that saving is an important economic variable to be studied on individual plus household basis. The major problem in India is that consumption is more than saving and therefore low saving leads to low investment and thus less capital formation. The study examines the patterns and determinants of saving behavior in rural households of western Odisha. The patterns and determinants of saving are different in rural and urban areas. The study shows that the rural households were less educated, unaware of the benefits of saving and careless towards their health matters. Moreover, the marginal propensity to consume was high in fear income groups like agricultural and non- agricultural labors which result in low propensity to save in comparison to other employment.

Reference [21] investigated saving and investment behavior and determinants of the forms of saving in Thailand. It was concluded that average saving rate was 29.17%. The main purpose of savings was for post-retirement spending. The household tended to invest more in conventional saving forms, such as bank deposits, insurance policies, gold and properties, than in financial assets such as government bond, mutual fund, corporate bonds, and stock.

Reference [22] studied the behavior of Indian household about their investment preferences. Data was collected from 210 respondents through well structured questionnaire. The effect of demographic variables on investment preferences was also focused. It was concluded that people were not aware about all the investment options available to them and they lack knowledge about securities.

# 3. Objectives of the Study

The key objectives of the research were as follows:

- 1) To study saving and investment behavior of urban households belonging to different income groups.
- 2) To find out the effect of different socioeconomic variables such as education, employment, income, and dependency ratio on saving and investment behavior of urban households.
- 3) To make suggestions and recommendations according to findings of the study.

#### 4. Material and Methods

This section describes the area of the study, sampling size, sampling method, description of data collection and data analysis.

## 4.1. Area of the Study

The urban area of District Peshawar *i.e.* Hayatabad was purposely selected for the study.

Sampling Size and Design

The houses of Hayatabad were selected randomly for the interview as given in the **Tables 1-2**. The sample size was selected by using formula:

$$SS = \frac{N}{N+1(a)^2} = \frac{14946}{14946+1(0.0025)}$$

*SS* = 400 (Due to resources and time constraint only half of the household heads were interviewed).

#### 4.2. Nature and Sources of Data

The primary data was collected from the selected houses by contacting the head of the households with the help of interview schedule through a face-to-face intervention. During interview questionnaires were administered and filled by asking personal, demographic, socio-economic status, income, saving and investment etc. related questions. The source of secondary data was Peshawar Development Authority, (PDA) Peshawar.

## 4.3. Analytical Techniques

To judge that how much household saving depends on household income, education of the head of the household, the number of dependents, employment status of the head of the household, we will carry out Multiple Linear Regression. The data collected for the study was analyzed through SPSS (Version 17).

Table 1. Number of sample households.

Area	No. of Houses	Sample Selected
Hayatabad	14946	201

Table 2. Number of sample houses according to plot size.

Area	Plot Size	No. of Houses	No. of Sample Houses
Hayatabad	3 Marla	873	12
	5 Marla	5666	76
	7 Marla	985	13
	10 Marla	3831	52
	20 Marla	2607	35
	40 Marla	984	13
	Total	14946	201

Source: Peshawar development authority, (PDA) Peshawar [23].

#### 4.4. Econometrics Model

The model used for household saving was

$$S = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 D_1 + \beta_5 D_2 + \beta_6 D_3 + Ui$$
 (1)

where

S = A Continuous Variable Used for Household Saving.

 $X_1$  = Household Income.

 $X_2$ = Education Level of the Household Head.

 $X_3$  = Number of Dependents.

 $D_1$  = Employment Status of the Household Head. 1 = Self Employed 0 = Otherwise.

 $D_2$  = Assets Dummy. 1 = House Owner 0 = Otherwise.

 $D_3$  = Assets Dummy. 1 = Land Owner 0 = Otherwise.

*Ui* = Error Term.

The model used for household investment was

$$I = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 D_1 + \beta_6 D_2 + \beta_7 D_3 + Ui$$
 (2)

where

*I* = A Continuous Variable Used for Household Investment.

 $X_1$  = Household Income.

 $X_2$  = Education (Number of Schooling Years) of the Household Head.

 $X_3$  = Number of Dependents.

 $X_4$  = Saving of the Household Head.

 $D_1$  = Employment Status of the Household Head. 1 = Self Employed 0 = Otherwise.

 $D_2$  = Assets Dummy. 1 = House Owner 0 = Otherwise.

 $D_3$  = Assets Dummy. 1 = Land Owner 0 = Otherwise.

Ui = Error Term.

## 5. Results and Discussion

This section describes the general characteristics of the sample households *i.e.* household size and composition, literacy level, employment status, the number

of dependents in the household, total monthly income, saving and investment of the households. Following are the results of statistical analysis.

#### 5.1. Household Size and Composition

A number of people living together in a house are called household size. The household size is important for the wellbeing and health of the entire nation. The factors affecting household size are social, cultural, economic and environmental [24]. Table 3 shows the distribution of the selected households according to household size. The data revealed that in the area selected for study the average household size in 3 - 5 Marla Houses was 7.1% with minimum 2 and maximum 29 household members. Whereas average household size in 7 - 10, 20 - 40 Marla houses was 6.6% and 6.7% with minimum 2 and maximum 15 household members. Chi-square value indicates that there is a significant association (p-value = 0.000) between plot size and size of the household.

## 5.2. Number of Dependents

Reference [7] was the first who determine a negative relationship between dependency ratio and saving of the households [3]. The numbers of dependent were found from the household size data as dependents largely influence saving of the household and so does investment. **Table 4** shows the distribution of sample respondents according to a number of dependents. The highest percentage of dependents was 75% living in 20 - 40 Marla Houses, ranging from 1 to 5 numbers of dependents whereas it was 68.1% in 3 - 5 and 66.1% in 7 - 10 Marlas.

# 5.3. Chi-Square: 23.10 (0.01)

The highest percentage of dependents was 29.2 % in 7 - 10 Marla houses, ranged from 6 to 10 numbers of a dependent, 28.4 % in 3 - 5 and 22.9 % in 20 - 40 Marlas. In the range of above 10 numbers of a dependent, 4.6 was the highest percentage in 7 - 10 Marlas, it was 3.4% in 3 - 5 and 2.0% in 20 - 40 Marla Houses respectively. Chi-square value shows significant association (p-value = 0.01) between plot size and a number of dependents.

#### 5.4. Literacy Level of the Sample Households

The only thing that interferes with my learning is my education (Albert Einstein). Education solves several problems. It develops good values, habits and makes people aware of many social problems such as disease, terrorism, and corruption. Moreover, it supports individuals to represent the best out of their mind and spirit. **Table 5** explains the distribution of selected households according to literacy level. The findings showed that percentage of illiterate respondents was 3.4% in 3 - 5 and 3.0% in 7 - 10 Marlas. The percentage of literacy was 96.5% in 3 - 5, 96.9% in 7 - 10 while 100 % in 20 - 40 Marla Houses.

The highest percentage of literacy in 3 - 5 Marlas was 28.4% BA/BSC while the lowest percentage was 9.0% MS/M.Phil. In 7 - 10 Marla houses, the highest

Table 3. Distribution of sample respondents according to household size.

Area	Plot Size	Total Sampled Households	Male	Female	Children	Total	Average	Min	Max
	3 - 5	88	179	189	265	633	7.1	2	29
TT4-b1	7 - 10	65	103	109	219	431	6.6	2	15
Hayatabad	20 - 40	48	88	87	150	325	6.7	2	15
	Total	201	370	385	634	1389	20.5		

Chi-Square: 125.17 (0.00).

**Table 4.** Distribution of sample respondents according to number of dependents.

Number of Dependents —	Plot Size (In Marla)					
Number of Dependents –	3 - 5	%	7 - 10	%	20 - 40	%
1 to 5	60	68.1	43	66.1	36	75
6 to 10	25	28.4	19	29.2	11	22.9
Above 10	3	3.4	3	4.6	1	2
Total	88	100	65	100	48	100

Table 5. Distribution of sample households according to literacy level.

			Literacy Level						
Plot Size	Illiterate Literate Primary- Matric FA/FSC BA		BA/BSC	Masters	MS/M.Phil	Total			
42.700	3	85	12	17	25	23	8	85	
42,799 0.03	0.034	0.965	0.136	0.193	0.284	0.261	0.09	1	
42.026	2	63	11	8	15	22	7	63	
42,926	0.03	0.969	0.169	0.123	0.23	0.338	0.107	1	
20 40		48	4	9	15	16	4	48	
20 - 40		1	0.083	0.187	0.312	0.333	0.083	1	

Chi-Square: 43.89 (0.01).

percentage of literacy was 33.8% Masters whereas lowest percentage was 10.7% MS/M.Phil. In 20 - 40 Marlas, the highest percentage was 33.3 % Masters and the lowest percentage was 8.3% Primary up to Matric as well as MS/M.Phil respectively. Chi-square value shows significant association (p-value = 0.01) between plot size and literacy level.

#### 5.5. Employment Status

Employment is a contract between two groups *i.e.* employers and employees. Employment is important as it assures basic needs of the people, which enables them to improve their living standards. **Table 6** gives information about the employment status of the sample respondents. There was no unemployed household head in 3 - 5 and 20 - 40 Marlas, while the percentage of unemployed was

**Table 6.** Distribution of sample respondents according to employment status.

Encolorum and Chatan	Plot Size (in Marlas)						
Employment Status -	3 - 5	Percent	7 - 10	Percent	20 - 40	Percent	
Unemployed	-	-	1	1.5	-	-	
Employed	88	100	64	98.4	48	100	
Self Employed	31	35.2	30	46.1	21	43.7	
Govt Employee	40	45.4	24	36.9	19	39.5	
Private Employee	17	19.3	10	15.3	8	16.6	

Chi-Square: 24.16 (0.06).

1.5% in 7 - 10 Marlas. The percentage of employed household heads was 100% in both 3 - 5, 20 - 40 Marlas, whereas 98.4% in 7 - 10 Marla houses.

The household heads were having different employment status. The highest percentage of self-employed household head was 46.1% in 7 - 10 Marla houses whereas lowest percentage was 35.2 % in 3 - 5 Marlas. The highest percentage of Govt employees was 45.4 % in 3 - 5 Marla houses, while 36.9% was the lowest percentage i.e. in 7 - 10 Marlas respectively. The highest percentage of private employees was 19.3% living in 3 - 5 Marla houses; the lowest percentage was in 7 - 10 Marlas i.e. 15.3%. Chi-square value indicates insignificant association (p-value = 0.06) between plot size and employment status of the households.

#### 5.6. Household Income

"A large income is the best recipe for happiness I ever heard of" (Jane Austen). Income is the vital factor for determining household saving. High income leads to high saving and vice versa.

**Table 7** shows income groups of the sample households. In 3 - 5 Marlas, the highest percentage of income was 29.5% ranges between 50,001 to 100,000. Whereas in 7 - 10 Marlas high income range was 200,001 to 250,000 *i.e.* 24.6%. The highest percentage of income in 20 - 40 Marlas is 31.2%, ranges above 300,000. The lowest percentage of income was 2.2% in 3 - 5 Marlas, ranged from 10,000 to 50,000. Chi-square value reveals significant association (p-value = 0.000) between plot size and income of the households.

#### 5.7. Household Saving

The way to build your savings is by spending less each month (Suze Orman). Saving is essential for the growth of an economy as well as for maintaining the higher level of investment [3]. **Table 8** shows the distribution of sample respondents according to saving groups. The data reveals that highest saving group in 3 - 5 Marlas was up to 20,000 as their percentage 42.0% shows. In the 7 - 10 and 20 - 40 Marlas, highest saving percentage was 27.6% and 31.2% ranged from 60,001 to 100,000. Chi-square value indicates significant association (p-value = 0.000) between plot size and savings of the households.

Table 7. Distribution of sample households according to income groups.

In some Crouns (Ds)	Plot Size (Marlas)						
Income Groups (Rs) -	3 - 5	Percent	7 - 10	Percent	20 - 40	Percent	
10,000 - 50,000	2	2.2	-	-	-	-	
50,001 - 100,000	26	29.5	3	4.6	4	8.3	
100,001 - 150,000	22	25	15	23	7	14.5	
150,001 - 200,000	12	13.6	13	20	9	18.7	
200,001 - 250,000	10	11.3	16	24.6	5	10.4	
250,001 - 300,000	7	7.9	8	12.3	8	16.6	
Above 300,000	9	10.2	10	15.3	15	31.2	
Total	88	100	65	100	48	100	

Chi-Square: 54.31 (0.000).

Table 8. Distribution of sample households according to saving groups.

Saving Groups		Plot Size (Marlas)							
(Rs.)	3 - 5	Percent	7 - 10	Percent	20 - 40	Percent			
Up to 20,000	37	42	15	23	7	14.5			
40,001 - 60,000	10	11.3	14	21.5	10	20.8			
60,001 - 100,000	16	18.1	18	27.6	15	31.2			
100,001 - 150,000	6	6.8	-	-	4	8.3			
150,001 - 200,000	-	-	1	1.5	4	8.3			
Above 200,000	-	-	4	6.1	2	4.1			

Chi-Square: 65.06 (0.00).

#### 5.8. Ordinary Least Estimates of Saving Model

Table 9 shows regression results of saving model along with different socio-economic variables. As we can see the effect of income on saving was positive and statistically significant at 5 percent significance level. This shows that as household income increases, household saving also increases and vice versa. The coefficient of education was also positive and statistically significant at 5 percent level of significance. This result was found identical to [25]. The positive constant of the saving model contradicts theory as according to theory when income equals consumption or consumption is more than income, saving becomes negative. However in this data, every household head was earning and saving some portion of their income, so the saving constant was positive.

The number of dependents coefficient was negative showing negative impact on household saving and was statistically significant at 5 percent significance level. The result concludes that as a number of dependents rise, saving of the households fall and vice versa. This result was found similar to [3] [11]. The employment status of the household head was statistically significant at 5 percent

**Table 9.** Regression results of saving model along with different socio-economic variables.

Variables	OLS co-efficient	t-ratio	p-value
(Constant)	18.629	0.006	0.995
Household Income	0.139	10.883	0
Education	455.644	1.984	0.049
Number of Dependents	-2608.924	-7.147	0
Employment Status d1	2380.091	2.125	0.035
Assets 2	2487.735	2.208	0.028
Assets 3	3305.562	2.855	0.005

 $R^2 = 0.563$ ; F = 41.617 (0.000).

level of significance having positive coefficient. The effect of employment status on household saving was analyzed as a dummy variable *i.e.* d1 if a person is a self-employed it equals 1 and 0 if otherwise. The asset 2 was a dummy variable and assumes the value of 1 if a person has its own house and 0 if otherwise. The co-efficient of assets 2 was positive and statistically significant at 5 percent significance level.

The asset 3 was also positive and statistically significant at 5 percent significance level. Asset 3 was a dummy and equals value 1 if a person owns a land and 0 if otherwise. The positive impact of assets shows that as assets of person increases, household saving also increase. R<sup>2</sup> shows 56% variation in the model by the explanatory variables. The F statistic shows that the model was overall significant.

#### 5.9. Household Investment

Invest three percent of your income in yourself (self-development) in order to guarantee your future (Brian Tracy). Households usually consider investment as investing their current savings in order to earn more money in the future, while others take it as the attainment of income creating assets both physical and financial. Investment is greatly influenced by variables as knowledge of investors, their willingness, ability, motivation and opportunity to invest [25].

The **Table 10** shows the distribution of sample respondents according to investment groups. The data showed that highest percentage of investment in 3 - 5 Marlas was 21.5% which ranges from 100,001 to 600,000. In 7 - 10 Marlas highest investment percentage was 26.1%, ranged from 600,001 to 1000,000. Whereas in 20 - 40 Marlas 35.4% was the highest percentage, ranged above 1000,000. The lowest percentage of investment was 1.5% *i.e.* up to 50,000 in 7 - 10 Marla houses, while 12.5% in 3 - 5 Marlas respectively. Chi-square value indicates statistically significant association (p-value = 0.03) between plot size and investment of the households.

Table 10. Distribution of sample households according to investment groups.

Investment Crouns	Plot Size (Marlas)						
Investment Groups -	3 - 5	%	7 - 10	%	20 - 40	%	
Up to 50,000	11	12.5	1	1.5	-	-	
50,001 - 100,000	14	15.9	6	9.2	2	4.1	
100,001 - 300,000	19	21.5	14	21.5	9	18.7	
300,001 - 600,000	19	21.5	14	21.5	12	25	
600,001 - 1,000,000	14	15.9	17	26.1	8	16.6	
Above 1,000,000	11	12.5	13	20	17	35.4	
Total	88	100	65	100	48	100	

Chi-Square: 39.22 (0.03).

Table 11. Regression results of investment model along with different socio-economic variables.

Variables	OLS co-efficient	t-ratio	p-value
(Constant)	-683,935.485	-3.301	0.001
Household Saving	3.322	3.322 2.227	
Household Income	4.608	8.707	0
Education	26,482.482	2.161	0.032
Number of Dependents	-45,269.725	-2.191	0.03
Employment Status d1	301,345.357	3.695	0
Assets 2	215,565.455	2.09	0.038
Assets 3	370,324.7	4.265	0

 $R^2 = 0.514$ ; F = 29.109 (0.000).

## 5.10. Ordinary Least Estimates of Investment Model

The **Table 11** shows results of investment model. Here household saving is an independent variable and its coefficient is positive and statistically significant at 5 percent significance level.

The impact of household income is positive on household investment and significant at 5 percent level. The increase in income will increase investment and vice versa. The coefficients of education and employment status were positive and statistically significant at 5 percent significance level.

Dependents having negative coefficient were also significant at 5 percent level showing the inverse impact on household investment. Assets d2 and d3 having positive coefficients were significant at 5 percent significance level. These results were found similar to [25]. R² shows 51% variation in the model by the explanatory variables. The F statistic shows that the model was overall significant. The negative constant of investment model shows that other than the above variables were having an inverse impact on household investment.

#### 6. Conclusion

It was concluded from the research study that saving and investment behavior of urban households was influenced by a number of demographic variables like household size, type, education and employment status of the household head, earning members in the household, the number of dependents and household income. All of the above mentioned variables have significant effect on saving as well on investment behavior of the household, with permanent type of employment saving and investment behavior changes in positive direction in line with theory permanent income hypothesis, with education choice of children changes and educated family prefer small family where dependency on head decreases hence income goes to saving and investment.

#### References

- [1] Ahmad, H.M., Atiq, Z. Alam, S. and Butt, M.S. (2006) The Impact of Demography, Growth and Public Policy on Household Saving. *A Case Study of Pakistan*, **13**, 57-71.
- [2] Obwona, J. and Sentamu, A. (2007) The Levels of Domestic Savings and Investment in Kenya. *Journal of Economics*, **5**, 45-56.
- [3] Ahmad, M. and Asghar, T. (2004) Estimation of Saving Behavior in Pakistan Using Micro Data. *Lahore Journal of Economics*, **9**, 73-92.
- [4] Turi, H.A. (2011) Saving Behaviour of Households in Kurram Agency.
- [5] Nasir, S. and Khalid, M. (2004) Saving-Investment Behaviour in Pakistan. An Empirical Investigation. *The Pakistan Development Review*, **43**, 665-682.
- [6] Burns, J. and Dwyer, M. (2007) Household's Attitudes to Saving, Investment, and Wealth. Reserve Bank of New Zealand. Bulletin, 70, 25-38.
- [7] Leff, N.H. (1969) Dependency Rates and Saving Rates. **59**, 886-896.
- [8] Solomon, C.L. (1975) The Relation between Schooling and Savings Behavior: An Example of the Indirect Effects of Education. In: Thomas Juster, F., Ed., *Education*, *Income*, and *Human Behavior*, National Bureau of Economic Research Inc., Cambridge, 253-294.
- [9] Azhar, B.A. (1995) Rural Savings: Their Magnitude, Determinants, and Mobilisation. *The Pakistan Development Review*, **34**, 779-788.
- [10] Burki, B.H. and Mohammed, S. (2008) Banks Not Tapping Saving Potential of Urban Poor: Research Study.
- [11] Burney, N.A. and Khan, A.H. (1992) Socio-Economic Characteristics and Household Savings: An Analysis of Household Saving Behavior in Pakistan. *The Pakistan Development Review*, **31**, 31-48.
- [12] Kazmi, A.A. (1993) National Saving Rates in India and Pakistan. A Macro-Econometric Analysis. *The Pakistan Development Review*, **32**, 41313-1324.
- [13] Ghani, M.O. (2000) Resource Mobilization in Pakistan, Dawn. The Internet Edition.
- [14] Verma, R. and Wilson, E.J. (2004) Savings, Investment, Foreign Inflows and Economic Growth of the Indian Economy 1950-2002. In: Sheen, J., Ed., *Proceedings of the Australian Conference of Economists*, Economic Society of Australia, Australia, 2-35.
- [15] Khan, I. (2009) The Analysis of Household Saving Behaviour in Urban and Rural Areas of Mardan.

- [16] Mumin, S. and Cilasun (2009) Income, Consumption and Saving Behaviour of Turkish Households. PhD, Department of Economics.
- [17] Abid, S. and Afridi, G.S. (2010) Assessing the Household Saving Pattern of Urban and Rural Households in District Muzaffarabad. *Pakistan Journal of Life and Social Sciences*, **8**, 137-141.
- [18] Syndera, W.D. (2007) Econometric Studies of Household Saving Behavior in Developing Countries. *The Journal of Development Studies*, **10**, 139-153.
- [19] Bibi, S., Khan, U.A. and Bibi, A. (2012) Determinants of Investment in Pakistan. *Academic Research International*, **2**, 517-524.
- [20] Nayak, S. and Sethi, N. (2013) Determinants and Pattern of Saving Behaviour in Rural Households of Western Odisha. Department of Humanities and Social Sciences, National Institute of Technology, Rourkela.
- [21] Nathridee, S. and Piyarat, K. (2015) Household Saving Behavior and Determinants of the Forms of Saving and Investment in Thailand. *Journal of Economics, Business and Management*, **3**, 326-330.
- [22] Geetha, N. and Ramesh, M. (2011) A Study of People Preferences in Investment Behavior. *IJEMR*, **1**, 1-10.
- [23] Peshawar Development Authority (2012) Building Control Agency, Peshawar.
- [24] Arthur, L.J. (2005) Family Size and Its Socio-Economic Implications in the Sunyani Municipality of the Brong Ahafo Region of Ghana, West Africa.
- [25] Issahaku, H. (2011) Determinants of Saving and Investment in Deprived District Capitals in Ghana. A Case Study of Nadowali in the Upper West Region of Ghana. *Continental Journal of Social Sciences*, **4**, 1-12.