## **Abstract**

The purpose of this study is to determine the impact of socioeconomic and demographic variables on the financial literacy in Pakistan. For this, a survey questionnaire formulated through the variables include age, gender, marital status, occupation, education level, father's education level, mother's education level, individual income and family income. Dependent variable, financial literacy was measured through the financial topics; division, time value of money, interest paid on loan, calculation of interest plus principle, compound interest, risk and return, definition of inflation and diversification. The respondents of the survey was student age above 20 years old. 120 of the students participated in this research. The results showed 80% of the male students have high financial literacy and 63% of the female students have high financial literacy. It is also identified that females have less financial literacy as compared with males.

## 1.1 Introduction

Financial literacy now in all over the world has become as a key factor for individuals who are not fully aware of increasing financial complex situations. Financial literacy is an important factor for the individuals but research around the globe indicated that many of the world's population still showed a huge lack of financial literacy. This indication highlighted the financial problem that needs to be urgent measures needed to reduce it (Lusardi & Mitchell, 2011;OECD, 2016). Increasing population in the present global financial environment where growth and interest rates are low leads to increasing consumer credit to make everyday purchases, it is now difficult for the consumers to make their effective saving plans for longer times to mitigate the financial problems and fulfill the financial needs in a good way.

Organization for Economic Co-operation and Development (OECD) defined financial literacy is a set of skills, knowledge, awareness, and behavior that are essential to take effective financial decisions that results in the form of individual wellbeing (OECD, 2016). Financially literate would mean that an individual have the knowledge about financial terms such as inflation, interest, exchange rate, bank deposits, bonds, risk and return over the investment etc. According to Bhushan, (2014) financial literacy supports individual's awareness about financial matters which allow individuals to take very informed decisions of their personal finance by processing and analyzing the financial information. Growing trends of different financial products and their marketing, credit access, ongoing technological changes, and a wider types of investment and financial products have made the process more complex for financially illiterate people in personal financial decision-making (Vyvyan et al, 2014).

In order to understand and participate in increasingly complex financial matters of modern society, individuals must have a basic information and awareness of investment, insurance, debt and credit management, and many more personal financial topics. Understanding and knowledge of these financial topics are referred to as financial literacy (Hill & Perdue, 2008). Hill and Perdue also indicated that financial illiteracy leads to individual financial losses. These individuals among others would choose the wrong financial products that might be costly and risky, ultimately they involuntarily save less than they should. One of the strategies to increase financial knowledge and built a financial attitude is financial education. It is strongly believed that financial education could be more beneficial in building financial literacy. Financial education and financial practices can truly increase the effective decision making process and benefits. According to the study conducted by Vyvyan et al, (2014), financial education can play an important role by improving financial literacy to understand the terms, products and complex financial scenarios.

Financial literacy comes from the financial knowledge that increases the individual's ability to make effective and informed judgments for fruitful decisions about the use and management of his or her personal finance. But Wolfe-Hayes, (2010) has found that it's not an easy task to create the knowledge, capability, and decision making competency that must become important part of an individual's life in order to have and exercise such abilities. Usually individuals are already developed their financial understandings, financial behavior, and financial attitude from the childhood and school age. Albeerdy & Gharleghi, (2015), Conclude in their study that often students are poised to have a spending behavior similar to their family, they spend their money according to their parent's instructions and also asked about the money how they are expending it. They grow up in a certain environment and at a set benchmark by their parents depending on

the family background. These students will be automatically influenced easily by their parents how they manage their expenditure and how manage their money, ultimately these students will tend to grow up with the same culture and behavior as their family have. Thus one of the financial socioeconomic variables is the parents. The level of financial literacy of the family ultimately have an impact on the student's early stage of college level where they are free to spend their money and parents have not much concerned about how and where they are spending it.

Report and evidences showed in the past studies that financially educated societies enable individuals to take effective and fruitful financial decisions. With the students who are very conservative being more to make financial decisions, there is a possibility of high risks for them to take worse decisions. Financial education and awareness can play a vital role to overcome the risk of poor decision making (Widdowson& Hailwood, 2007). There are some other factors explored by (Lusardi & Mitchell, 2011), that are low income, low education, and those with low wealth holdings are unable to better saving plans and have the low understanding of risk diversification on the other hand high income, high education and higher wealth holdings have understanding diversification better about risk and better saving plans. Another study investigated by Rooij et al, (2011) that financial knowledge has some basic understanding of the financial topics such as division, interest compounding, inflation, and the time value of money. Many of the individuals are still have no awareness of the bonds and stocks, difference in bond and stock, the relationship between prices of the bonds and interest rates, and the basic knowledge of risk diversification. In a recent study conducted by Arif, (2015) in Karachi Stock Exchange (KSE), showed a very poor financial literacy results that is below 45% which suggest a very low level of financial literacy that is 43%. A meaningful difference in

financial literacy is found in the respondents with respect to age, gender, marital status and occupation. However, study suggested that male is active and has the knowledge about finance females Pakistan. more than in Socioeconomic factors such as qualification, occupation, marital status, income level, and risk preferences are positively correlated with financial literacy. After assessing it authors investigated that individuals of Pakistan found to be financially illiterate and there is existence of a positive correlation between socioeconomic factors and financial literacy by (Bashir et al, 2015). With reference to Lodhi, (2014) suggested that financial literacy and financial basic knowledge improves individual ability to understand risk diversification by minimize the factor information asymmetry which may be allow individuals to invest in risky stocks. But as the age increases with experience investment preferences changed to low risk investments. Financial literacy is an essential tool for the poor individuals who manage their expenditures within limited finance and unexpected cash flows. Financial literacy and the awareness of basic financial situations, a step towards understanding by which individuals can get financial services relevant and beneficial for their well-being.

Source of information about financial matters in Pakistan normally an informal way such as family, friends, electronic and print media. Furthermore, financial literacy is the understanding of necessary and basic financial topics that were found very low in rural areas and between female populations of Pakistan. In past few years, some of the stakeholders have made efforts try to improve financial basic knowledge and financial skills of the individuals who have the low levels of income in Pakistan. While implementation of such financial literacy related programs hav not been actually take placed in Pakistan (Ali, Khalid, & Khalid, 2012). Pakistan Poverty

Alleviation Fund (PPAF) emphasis on financial literacy related programs to improve financial literacy and built management skills inside the individuals of the Pakistan.

President's Advisory Council on Financial Literacy, (2008) suggested financial education is a mechanism by which financial knowledge and skills are gained, it is wrong that knowledge and skills gained themselves. Hence, financial education could be considered a concept that promotes financial literacy.

#### 1.2 Problem statement

In a recent study conducted by Arif, (2015) in Karachi Stock Exchange (KSE), showed a very poor financial literacy level that is below 50% which suggest a low level of financial literacy that is 43%. A meaningful difference in financial literacy is found in the respondents with respect to age, gender, marital status and occupation. However, study suggested that male is active and has the knowledge about finance more than females in Pakistan.

Source of information about financial matters in Pakistan normally an informal way such as family, friends, electronic and print media. Furthermore, financial literacy is the understanding of necessary and basic financial topics that were found very low in rural areas and between female population of Pakistan. In past few years, some of the stakeholders have made efforts try to improve financial basic knowledge and financial skills of the individuals who have the low levels of income in Pakistan. While implementation of such financial literacy related programs have not been actually take placed in Pakistan (Ali, Khalid, & Khalid, 2012). Financial literacy now in a growing world has become as a key factor for individuals who are not fully aware of increasing financial complex situations. Financial literacy is an important factor for the individuals but research around the globe indicated that many of the world's population still showed a huge lack of financial literacy. This indication highlighted the financial problem that needs to be urgent measures needed to reduce it

(Lusardi & Mitchell, 2011;OECD, 2016). Therefore there is a need to determine the impact of socioeconomic and demographic variables on financial literacy in Pakistan.

## 1.3 Research questions

- 1. To what extent age has an impact on financial literacy
- 2. To what extent gender has an impact on financial literacy
- 3. To what extent marital status has an impact on financial literacy
- 4. To what extent occupation has an impact on financial literacy
- 5. To what extent if an individual has dependent family members has an impact on financial literacy
- 6. To what extent individual's education has an impact on financial literacy
- 7. To what extent individual's father's education level has an impact on financial literacy
- 8. To what extent mother's education level has an impact on financial literacy
- 9. To what extent individual's income level has an impact on financial literacy
- 10. To what extent individual's family income has an impact on financial literacy

### 1.4 Research objectives

- 1. To determine the impact of age on financial literacy
- 2. To determine the impact of gender on financial literacy
- 3. To determine the impact of marital status on financial literacy
- 4. To determine the impact of occupation on financial literacy
- To determine the impact of an individual has dependent family members on financial literacy
- 6. To determine the impact of individual's education on financial literacy
- 7. To determine the impact of individual's father's education level on financial literacy

- 8. To determine the impact of mother's education level on financial literacy
- 9. To determine the impact of individual's income on financial literacy
- 10. To determine the impact of individual's family income on financial literacy

## 2.1 Scope of the study

Socioeconomic factors such as qualification, occupation, marital status, income level, and risk preferences are positively correlated with financial literacy. After assessing it authors investigated that individuals of Pakistan found to be financially illiterate and there is existence of a positive correlation between socioeconomic factors and financial literacy by (Bashir et al, 2015). Haque & Zulfiqar, (2016) Concluded that high levels of financial literacy and positive financial attitude in females, will leads to greater the financial wellbeing which may be ultimately increase women's empowerment in a fast growing societies now a days.

# 2.2 Socio-demographic determinants and Financial Literacy

In the survey of students that are undergraduate level, Shim et al,(2010) found that some undergraduate students were struggling how to manage their finance in a better way and some of the students found with risky behaviors. The authors indicates that, a healthy understanding of the reasons for the existing of these type of different behaviors can be achieved by doing analysis on the socio-demographic variables of the students, because these variables have significant effects on financial literacy. The important demographic variables that have been analyzed are gender, age, marital status, occupation, dependent members, level of education of the students, income of the individual, father's and mother's education level, and the family income.

In terms of gender differences, Lusardi and Mitchell (2011) indicate females are often not interested to respond the questions or give the correct answer and more inclined to say that they do not understand the question or don't know the correct answer. This behavior is mostly similar

in many countries of the world (Lusardi & Wallace, 2013). On the other side, it is found that women reacts very cautiously when they asked about their own level of financial literacy. Lusardi and Mitchell (2011), have found same results in developed and developing countries both. Study conducted by Chen and Volpe (1998) found that females find it more difficult to make financial calculations and reduce the level of knowledge, which undermines the ability to make responsible and effective financial decisions.

Research conducted by Edwards et al, (2007) found that parents have different expectations for their boys and girls; but parents usually have bigger expectations for their sons and are therefore more likely to talk about money management and saving plans with their sons. On the other hand, the authors noticed that parents educate their girls in a way to be financially dependent that is the reason why parents give more financial assistance to their daughters than their sons at university level. So, there are significant differences between male and female explored by the fact that males are more likely thought that of money is the power and believe that can make more desirable to them, while females particularly to have a passive behavior towards the money (Calamato, 2010).

With respect to age, important research indicates that financial literacy level is higher among individuals in the middle of age and generally low in youth (Research, 2003; Agarwal et, 2009). Lusardi and Mitchell (2011) results indicate respondents who are 24 to 64 year old respond answer 5% more questions than those who are under the age of 26 or over 64 years old. It is also found by Scheresberg, (2013) that young adults who are 25 to 35 years old have used more loans with high cost.

Marital status has significant relationship by the level of financial literacy. According to Research, (2003); Brown & Graf, (2013), single people have a meaningful ability to reduce their

level of financial literacy as compared with married people. In general view, when people have a low level of financial literacy, there is a huge possibility of risk by making poor financial decisions in long run, it leads to debt and these can be adversely affect the well-being of their relationships (Calamato, 2010). Based on these data Dew, (2008) found that consumer debt is higher in marital satisfaction and, as a result, married individuals have higher levels of financial literacy.

With regard to the dependent members, the same statement can be used: At the level of wellbeing of the family well-being, people with more dependent family members may be more concerned about the budget, which would increase their level of financial literacy. The results of the study, however, do not support these findings. Servon & Kaestner, (2008), indicates that those individuals who have one child have shown high financial literacy levels than those who have two or more children. In addition, Motola, (2013) investigates that families with more dependents found levels of financial low literacy. were By analyzing the work, Chen and Volpe, (1998) identify that people with long time work experience have experienced and faced a greater number of financial issues, therefore they have more knowledge to analyze of more complex and basic information. On the other side, by Research, (2008), untrained or without profession people tend to show poor performance because of less involvement in financial issues. Moreover, financial illiteracy is correlated with poor work performance and workers output (Kim & Garman, 2004). Work experience and ability can also has an influence on financial behaviors, as people with constant and handsome incomes, have better path for managing and planning their financial lives (Calamato, 2010). Level of financial literacy is higher for those individuals with higher level of education and better understanding and approach to financial information. Amadeu, (2009) suggested that more

contacts in bachelors or in specialized courses related to finance has positive influence on daily practical finance, with topics related to finance and positively influence daily financial practices. Students in economics, administration and accounting courses had a higher level of financial literacy. To confirm this evidence; Lusardi and Mitchell (2011) found that people with less educational level are unable to answer correctly and more likely to say that they do not understand the question and don't know the correct answer. Chen & Volpe, (1998), Identify student's personal finance knowledge, study found that normally students, instead of good level of education, have an inadequate level of knowledge, often with investments. Report and evidences showed in the past studies that financially educated societies enable individuals to make better financial decisions. With the students who are very conservative being more to make financial decisions, there is a possibility of high risks for them to take worse decisions. To overcome the risk of poor decision making financial education and awareness can play a vital role (Widdowson& Hailwood, 2007).

The literature study suggests that parents play an important role by influencing the expending behavior of their children. Studies have identified that many of the students learn more about money management and other financial issue from their parents (Pinto et al, 2005; Clarke et al, 2005).

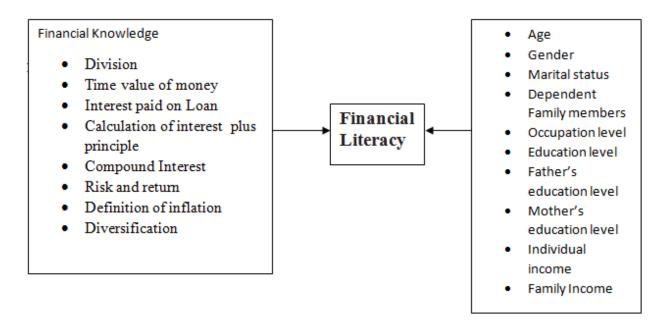
Albeerdy & Gharleghi, (2015), Conclude in their study that often students are tend to have a spending behavior similar to their family, they spend their money according to their parent's instructions and also asked about the money how they are expending it. They grow up in a certain environment and at a set benchmark by their parents depending on the family background. These students will be automatically influenced easily by their parents in a way how they manage their expenditure and how manage their money, ultimately these students will tend

to grow up with the same culture and behavior as their family have. Thus one of the financial socioeconomic variables is the parents. The level of financial literacy of the family ultimately have an impact on the student's early stage of college level where they are free to spend their money and parents have not much concerned about how and where they are spending it. Mandell,(2008) indicates that individuals' financial literacy has relationship with the level of education of their children. So it is concluded that parents' education level could play an important role in the literacy of their children.

# **2.3 Conceptual Framework:**

Socioeconomic Independent variables

Demographic Independent variables



# 3.1 Hypotheses development:

These are the research the hypotheses:

H1: Age has an impact on financial literacy

H2: Gender has an impact on financial literacy

H3: Marital status has an impact on financial literacy

H4: Occupation has an impact on financial literacy

H5: Individual has dependent family members has an impact on financial literacy

H6: Individual's education level has on impact on financial literacy

H7: Individual's father's education level has an Impact on financial literacy

H8: Mother's education level has an impact on financial literacy

H9: Individual's income has an impact on financial literacy

H10: Individual's family income has an impact on financial literacy

#### 3.2 Research Methodology

This research is conducted through a survey questionnaire in the University of COMSATS Lahore, Punjab region of Pakistan to investigate the financial literacy level through the sociodemographic variables in the university students. Therefore, the respondents of the questionnaire was the students above 20 years old enrolled in undergraduates mostly in last semester, graduates and Ph.D. students. Most of the questionnaire distributed to the graduate students, thus 150 questionnaire distributed in classes, cafeteria and students sitting places. Finally 120

questionnaires were obtained at the end of collection period out 150. The questionnaire was formulated to keep in mind those individuals or students easily understand and participate voluntarily in the questionnaire survey. That's why questionnaire was very simple and understandable for the target population of the survey and to get maximum participants. The variables of socioeconomic and demographic variables are: gender, age, marital status, dependent family members, occupation, individual education level, father's education level, mother's education level, individual income and family income. The measurement of these variables has been done through coding and labeling. Such as; age has ratio scale and given the values; (number of years age), gender has nominal scale and given the values; male (1) female (0), marital status has nominal scale and given the values; single (0), married (1), dependent family members has nominal scale and given the values; yes (1), no (0), occupation has also nominal scale and given the values; works (1), works not (0), individual education level has nominal scale and given the values, elementary school (1), high school (2), technical education (3), higher education (4), specialization course (5), Masters'/Post-Ph.D. (6), father's educational level has nominal scale and given the values, elementary school (1), high school (2), technical education (3), higher education (4), specialization course (5), Masters'/Post-Ph.D. (6), mother's educational level has nominal scale and given the values, elementary school (1), high school (2), technical education (3), higher education (4), specialization course (5), Masters'/Post-Ph.D. (6), individual income level has the ordinal scale given the values; I do not have individual income (1), upto Rs 15000 (2), between Rs 15000 to Rs30000 (3), between Rs 30001 to Rs 50000 (4), between Rs 50001 to Rs 70000 (5), between Rs 70001 to Rs 100000 (6), more than Rs 100000 (7), and family income has ordinal scale given the values; I do not have family income (1), upto Rs 15000 (2), between Rs 15000 to Rs30000 (3), between Rs 30001 to Rs 50000 (4), between Rs 50001 to Rs 70000 (5), between Rs 70001 to Rs 100000 (6), more than Rs 100000 (7).

The measurement of financial literacy made through multiple choice questions adapted from (Potrich et al, 2014). There was eight factors; division, time value of money, interest paid on loan, calculation of interest plus principle, compound interest, risk of retrun, definition of inflation and last factor that was diversification. First five questions was multiple choice based the situations faced generally in rotuin in terms of financial literacy such as division, time value of money, interest paid on loan, calculation of interest plus principle and compound interest have given the values; correct answer, (1) and incorrect answer (0), remaing three factors regarding risk of return, definition of inflation and diversification understanding of the students have given the values; true (1) and false (0). Those who scored above 4 will be concidered in a high financial literacy group and those who scored 4 or below will be considered in low financial group.Low financial group given the value (0) and high financial literacy group given the value of (1).

### 3.3 Results Analyses

In Sample population 120 university students participated survey questionnaire from which 52.5% are the females and 61.5% are the males out of 79.2% are single and 20.8% of the students are married usually they are the above age 25 years old and studying at specialization such as MBA or Ph.D. level. Regarding dependent family members 57% of the students have not any dependent family members while 42.5% of the students have answer that they have dependent family members. Mean education level of the students is specialization course (5), as 40.8% belongs to specialization course like MBA course, 25% of the students belongs to the category of higher education which includes bachelor studies. While 31% of PhD students participated in the survey. The median education level of father and mother of the sample size is high school (2).Most of the students are engaged in work activity therefore 85% of the students are in the working category and 15% of the students are not doing any work. The mean income

level of the sample population is upto Rs15000 to Rs 35000 and the mean income level of the family is (5.40) that is between Rs 70000 to Rs 100000 per month.

#### **Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Age	120	21	36	26.32	3.474
Gender	120	0	1	.53	.501
Marital status	120	0	1	.89	.312
Occupation	120	0	1	.85	.359
Dependent family members	120	0	1	.43	.496
Education level	120	2	6	5.00	.870
Father's education level	120	1	6	2.51	1.366
Mother's education level	120	1	6	2.13	1.351
Individual income level	120	1	6	3.38	1.323
Family income level	120	2	7	5.40	1.024
Valid N (listwise)	120				

#### 3.4 Main Results

It was expected that age factor is positively correlated with financial literacy and has an impact on financial literacy. Table.1 shows the results of age variable that is significantly and positively has an impact on financial literacy. Financial literacy is higher as age level higher showed in table.1 it is important to notice that young adults age 21-25 has high financial literacy and student of age 26-30 have showed comparatively low financial literacy but the trend is still increasing with the increasing age factor. So the H1 will be accepted because it has investigated that age variable has an impact on financial literacy.

Table.1 Age and financial literacy

		Financia	Total	
		low financial	higher financial	
		literacy	literacy	
	21-25	11	44	55
Age	26-30	19	34	53
	31+	3	9	12
Total		33 87		120

It is showed in the table.2; female has less financial literacy than the males. 36 Out of 57 females have higher financial literacy while 51 out of 63 males have higher financial literacy. So H2 will not be rejected because it has been identified that gender differences has the impact on financial literacy.

Table.2 Gender and financial literacy

		Financia	Financial literacy		
		low financial	higher financial		
		literacy	literacy		
0	female	21	36	57	
Gender	male	12	51	63	
Total		33	87	120	

It is studied in the literature married individuals have more financial literacy because they face dependency and practice budgeting planning, savings and expenditure of the family. In the results married individuals have low financial literacy as compared to singles, so H3 will also be acceptable because it has an impact on financial literacy.

**Table.3 Marital status and financial literacy** 

		Financia	Total	
		low financial	higher financial	
		literacy	literacy	
Marital atatus	Single	23	72	95
Marital status	Married	10	15	25
Total		33	87	120

Regarding occupation results it was expected that more the working experience has more the financial literacy level in an individual or in a student. Table.4 shed results are exactly the same with the expectation because students who have occupation and has work experience are highly financially literate. The students without work experience have showed poor financial knowledge hence they have lower financial literacy. H4 will not be rejected because it has been shown in the table that occupation has an impact on the financial literacy.

Table. 4 Occupation and financial literacy

		Financia	Total	
		low financial	higher financial	
		literacy	literacy	
Occupation	work_ not	4	14	18
Occupation	Work	29	73	102
Total		33	87	120

Individual has dependent family members are highly financially literate shown in table.5. Results indicate that individuals with dependent family members have higher financial literacy while individuals don't have dependent members have less financial literacy. So research hypotheses H5 regarding dependent family members is accepted and have an impact on financial literacy.

Table.5 Dependent family members and financial literacy

		Financia	Total	
		low financial	higher financial	
		literacy	literacy	
	No	28	41	69
Dependent family members	yes	5	46	51
Total		33	87	120

Education level has positively correlated with the financial literacy investigated in prior studies. In this table results showed the same relationship between education level and financial literacy. As education level increase financial literacy level also increases. So H6 will be accepted as education level has positive impact on financial literacy.

Table.6 Education level and financial literacy

		Financia	Total	
		low financial	higher financial	
		literacy	literacy	
	high school	1	1	2
	technical education	1	0	1
Education level	higher education	8	22	30
	Specialization course	16	33	49
	Masters'/Post-Ph.D.	7	31	38
Total		33	87	120

Financial literacy level of the students can be affected by education level. As results shown in table.7 mean education level is high school, it means most of the parents have the high school level education and then more of the students' father's education level is higher education. The results showed that there is no impact on financial literacy by the father's education level therefore H7 will be rejected. It might be a reason behind this that students at university level and who have occupation, learned financial knowledge and involved in financial terms by studying and from practical lives.

Table.7 Father's education level and financial literacy

			Financial literacy		
		low financial	higher financial		
		literacy	literacy		
	Elementary school	12	20	32	
	high school	13	29	42	
Fathada adoration lavel	technical education	0	12	12	
Father's education level	higher education	6	19	25	
	Specialization course	1	4	5	
	Masters'/Post-Ph.D.	1	3	4	
Total		33	87	120	

Parents education level has no impact on financial literacy as results shown in table.8 mean education level is high school, it means most of the parents have the high school level education and then more of the students' mother's education level is higher education. The results showed that there is no impact on financial literacy by the mother's education level therefore H8 will also rejected. The reason could be same as above mentioned that it might be a reason behind this that students at university level and who have occupation, learned financial knowledge and involved in financial terms by studying and from practical lives.

Table.8 Mother's education level and financial literacy

			Financial literacy		
		low financial	higher financial		
		literacy	literacy		
	Elementary school	15	34	49	
	high school	12	32	44	
Mathada advantian laval	technical education	1	1	2	
Mother's education level	higher education	3	14	17	
	Specialization course	1	3	4	
	Masters'/Post-Ph.D.	1	3	4	
Total		33	87	120	

Individual income has an impact on financial literacy it was the hypotheses of the research and results shown in table.9 indicating individuals with higher levels of income have higher financial literacy. H9 will be accepted because it has the impact on financial literacy. With the income and work experience an individual is more aware and often face financial issues in his or her life.

Table.9 Individual income level and financial literacy

			l literacy	Total
		low financial	higher financial	
		literacy	literacy	
	I do not have individual	4	12	16
	income			
	Upto Rs 15000	2	10	12
	Between Rs 15000 to Rs	7	21	28
	30000			
Individual income level	Between Rs 30001 to Rs	15	27	42
	50000			
	Between Rs 50001 to Rs	4	14	18
	70000			
	Between Rs 70000 to Rs	1	3	4
	100000			
Total		33	87	120

As family income higher financial literacy of the students will also be higher. Table.10 showed the same results with the median family income of the individuals is Rs 70000 to Rs 100000 have higher financial literacy and the individuals who have family income more than Rs 100000 are also highly financially literate. So it is identified that family income has an impact on financial literacy, H10 will be accepted.

Tbale.10 Family income level and financial literacy

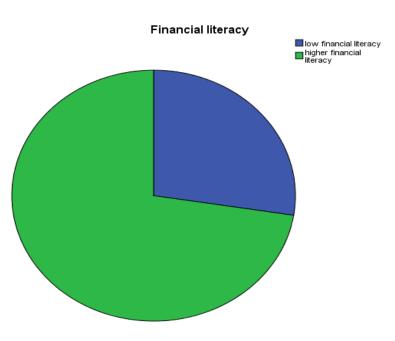
		Financia	l literacy	Total
		low financial	higher financial	
		literacy	literacy	
	Upto Rs 15000	0	1	1
	Between Rs 15000 to Rs	0	2	2
	30000			
	Between Rs 30001 to Rs	9	12	21
Family income level	50000			
ramily income level	Between Rs 50001 to Rs	12	23	35
	70000			
	Between Rs 70000 to Rs	10	36	46
	100000			
	More than 100000	2	13	15
Total		33	87	120

#### 3.5 Conclusion and Recommendations

This paper results indicates that socioeconomic and demographic variables have strong relationship to the financial literacy level. It is identified that 70% of the students have high

financial literacy and 30% of the students have low financial literacy in the University of COMSATS, Lahore Punjab region, Pakistan. It suggests that level of financial literacy can be determined by these variables. Age has the impact on financial literacy, as age increases financial literacy level increases.

Prior results indicate that financial



literacy level is higher among adults in the middle of age of the individual and generally low in youth (Research, 2003; Agarwal et. 2009). Similarly gender has an impact on financial literacy. Females have less financial literacy than the males. 63% females have higher financial literacy and 80% of the males have high financial literacy. Marital status, occupation, dependent family members and student education; all are the variables have positive impact on financial literacy. Parent's education level has found no relationship among financial literacy of the students and the parents education level. Individual income has positively correlated with the financial literacy of the individual. Financial literacy level is higher among individuals who have good and stable income. Similarly family income has shown positive relationship with financial literacy as high income of the individuals has high financial literacy.

The main contribution of the paper as this is unique by differentiating low financial literacy from high financial literacy students through socioeconomic and demographic variables. It will be helpful in further research techniques. There is a need to take other initiatives to increase the financial literacy of the female group in Pakistan.

## 1. References

Agarwal, S., C, J., Driscoll, Gabaix, X., & Laibson, D. (2009). The age of Reason: Financial Decisions over the Life Cycle and Implications for Regulation. *Brookings Papers on Economic Activity 2*, 51-117.

Ahmad, Z., Simun, M., & Masuod, M. S. (2012). Determinants of Financial Behaviours among Malaysians. *INDONESIAN CAPITAL MARKET REVIEW*.

Albeerdy, M., & Gharleghi, B. (2015). Determinants of the Financial Literacy among College Students in Malaysia. *International Journal of Business Administration*.

Ali, K., Khalid, U., & Khalid, Z. (2012). *Promoting Financial Inclusion and Literacy in Pakistan via G2P Payment Programs*. Pakistan: Prepared by Pakistan Microfinance Network for the World Bank.

Amadeu, J. R. (2009). A educação financeira e sua influência nas decisões de consumo e investimento: proposta de inserção da disciplina na matriz curricular. *Dissertação de mestrado, Universidade do Oeste Paulista, São Paulo, SP*.

Arif, K. (2015). Financial Literacy and other Factors Influencing Individuals' Investment Decision: Evidence from a Developing Economy (Pakistan). *Journal of Poverty, Investment and Development*.

Bashir, D. T., Arshad, A., Nazir, A., & Afzal, N. (2015). FINANCIAL LITERACY AND INFLUENCE OF PSYCHOSOCIAL FACTORS. *European Scientific Journal* .

Bhushan, P. (2014). Relationship between Financial Literacy and Investment. *Journal of Business Management & Social Sciences Research* .

Brown, M., & Graf, R. (2013). Financial literacy and retirement Planning in Switzerland. Numeracy.

Calamato, M. P. (2010). LEARNING FINANCIAL LITERACY IN THE FAMILY. The Faculty of the Department of .

Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 107-128.

Clarke, M. C., Heaton, M. B., Israelsen, C. L., & Eggett, D. L. (2005). The acquisition of family financial roles and responsibilities. *Family and Consumer Sciences Research Journal*, 321-340.

Dew, J. (2008). Debt change and marital satisfaction change in recently. Family Relations, 60-71.

Edwards, R., Allen, M. W., & Hayhoe, C. R. (2007). Financial attitudes and family communication about students' finances: The role of sex differences. *Communication Reports*, 90-100.

Haque, A., & Zulfiqar, M. (2016). Women's Economic Empowerment through Financial Literacy, Financial Attitude and Financial Wellbeing. *International Journal of Business and Social Science*.

Hill, R. R., & Perdue, G. (2008). A METHODOLOGICAL ISSUE IN THE MEASUREMENT OF FINANCIAL LITERACY. *Journal of Economics and Economic Education Research* .

Kim, J., & Garman, E. T. (2004). Financial stress, pay satisfaction and. *Compensation Benefits Review*, 69-76.

Lodhi, S. (2014). Factors Influencing Individual Investor Behavior: An Empirical Study of City Karachi. *Journal of Business and Management*.

Lusardi, A. (2008). Household Saving Behavior: The Role of Financial Literacy, Information, and Financial Education Programs. *NBER WORKING PAPER SERIES* .

Lusardi, A., & Mitchell, O. S. (2011). Financial Literacy and Planning: Implications for Retirement Wellbeing. *NBER Working Paper*.

Lusardi, A., & Wallace, D. (2013). Financial literacy and quantitative reasoning in the high school and college classroom. *Numeracy* .

Mandell, L. (2008). Financial literacy of high schools students. New York: Springer.

Motola, G. R. (2013). In Our Best Interest: Women, Financial Literacy, and Credit Card Behavior. *Numeracy, Advancing Education in Quantitative Literacy*.

OECD, O. f.-o. (2016). *OECD/INFE International Survey of Adult Financial Literacy Competencies*. Paris, France: OECD.

PACFL, P. A. (2008). Annual Report to the President Executive Summary. United States Of America.

Pinto, M. B., Parente, D. H., & Mansfield, P. M. (2005). Information learned from socialization agents: its relationship to credit card use. *Family and Consumer Sciences Research Journa*, 357-367.

Potrich, A. C., Vieira, K. M., & Kirch, G. (2014). Determinants of Financial Literacy: Analysis of the Influence of. *Paper presented at the 38th AnPAD Meeting*, . Rio de Janeiro, Brazil.

Research, R. M. (2008). Survey of adult financial literacy in Australia. ANZ Banking Group.

Rooij, M. v., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 449-472.

Scheresberg, C. d. (2013). Financial literacy and financial behavior among young adults: evidence and implications. *Numrecy* .

SERVON, L. J., & KAESTNER, R. (2008). Consumer financial literacy. *THE JOURNAL OF CONSUMER AFFAIRS*, 271-305.

Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialization of first-year college students: the roles of parents, work, and education. *Journal of Youth and Adolescence*, 1457-1470.

Vyvyan, V., Blue, L., & Brimble, M. (2014). Factors that Influence Financial Capability and Effectiveness: Exploring Financial Counsellors' Perspectives. *Australasian Accounting, Business and Finance Journal*.

West, R. F. (2002). Heuristic and analytic processing: Age trends and associations with cognitive ability and cognitive styles. *Journal of Experimental Child Psychology* .

Wolfe-Hayes, M. A. (2010). Financial literacy and education: An environmental scan. *Elsevier* .

Ward, S. (1974). Consumer socialization. Journal of Consumer Research, 1, 1-16. http://dx.doi.org/10.1086/208584

# 1. Appendix

# A survey on the financial literacy of students in Pakistan

Purpose	To collect the information about the level of financial literacy
_	through socioeconomic and demographic factors in Pakistan.

# **2.** Age

- **3.** Gender
  - A. Female
  - B. Male
- **4.** Marital Status
  - A. Single
  - B. Married
- **5.** Occupation:
  - A. Works
  - B. Does Not Works
- **6.** Has Dependent FamilyMembers
  - A. Yes
  - B. No
- 7. Education Level
- A. Elementary school
- B. High School
- C. Technical education
- D. Higher education
- E. Specialization course
- F. Masters'/Post-Ph.D.

- **8.** Father's education level
- A. Elementary school
- B. High School
- C. Technical education
- D. Higher education
- E. Specialization course
- F. Masters'/Post-Ph.D.

## 9. Mother's education level

- A. Elementary school
- B. High School
- C. Technical education
- D. Higher education
- E. Specialization course
- F. Masters'/Post-Ph.D.

## **10.** Individual Income level

- A. I do not have individual income
- B. Upto 15000
- C. Between Rs 15000 to Rs30000
- D. Between Rs 30001 to Rs 50000
- E. Between Rs 50001 to Rs 70000
- F. Between Rs 70001 to Rs 100000
- G. More than Rs 100000

# **11.** Family Income

- A. Upto 15000
- B. Between Rs 15000 to Rs 30000
- C. Between Rs 30001 to Rs 50000
- D. Between Rs 50001 to Rs 70000
- E. Between Rs 70001 to Rs 100000
- F. More than Rs 100000

# Financial literacy knowledge based Questions

Division	Imagine that five brothers are given a gift of \$1000. If the brothers have to share the money equally how much does each one get?
Answer	<b>a</b> )\$100 <b>b</b> )\$150 <b>c</b> ) \$200 <b>d</b> )\$400
Time-Value of money	Now imagine that the brothers have to wait for one year to get their share of the X. In one year's time will they be able to buy:
Answer	<b>a)</b> More <b>b)</b> the same amount <b>c)</b> less than they could buy today
Interest paid on loan	You lend X to a friend one evening and he gives you X back the next day. How much interest has he paid on this loan?
Answer	<b>a</b> ) 0 % <b>b</b> )1% <b>c</b> )2% <b>d</b> ) 4%
Calculation of interest plus principle	Suppose you put \$100 into a savings account with a guaranteed interest rate of 2% per year. You don't make any further payments into this account and you don't withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made?
Answer	<b>a</b> )\$100 <b>b</b> )\$102 <b>c</b> ) \$104 <b>d</b> )\$110
<b>Compound Interest</b>	How much would be in the account at the end of five years? Would it be:
Answer	<ul> <li>a) More than \$110 b) Exactly \$110 c) Less than \$110</li> <li>d) Or is it impossible to tell from the information given</li> </ul>
Risk and return	An investment with a high return is likely to be high risk
Answer	a) False b)True
<b>Definition of inflation</b>	High inflation means that the cost of living is increasing rapidly
Answer	a) False b)True
Diversification	It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares
Answer	a) False b)True

Thank you very much for taking your valuable time to complete this questionnaire!