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Survey of Investors Regarding Financial Literacy: AnEmpiricalStudy of Selected Cities of Punjab

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Abstract: *Financial literacy refers to the competency of an individual in taking efficient and effective financial decisions. In the present set up, management of finances have become highly challenging due to high degree of volatility seen in the various fundamental economic parameters.One of the critical factors which determine the pace of economic development of a nation is the level of financial literacy attained by its residents. Awareness of the residents will affect the allocation of resources amongst the various industrial sectors. Moreover as stated by Wolcott and Hughes(1999) "financial hardship can increase isolation, emotional stress, depression and lower self-esteem, which, in turn, can generate or exacerbate marital tensions" that lead to divorce. Therefore, an attempt was made in this study to examine the financial behavior of the respondents and also to check their level of financial knowledge. It was found that most of the respondents, who were investors, though expressed that they always feel concerned about their financial resources, though they expressed that they act in an economical manner while meeting their financial needs but it was found that the level of financial knowledge possessed by them was much below the expected level, no respondent could score more than 60% score and more than 90% respondents scored less than 50% marks. Respondents were found to lack financial knowledge about the very basic concepts like the nature of relationship between risk and return, 64% of the respondents could not give correct reply to the kind of relationship between diversification and risk, around 45% respondents didn't understand the nature relationship between rate of inflation and the rate of return. It was found that senior people, people with higher income and people who took formal training in management of funds have better financial knowledge.*
Key Words: *Financial Literacy, Risk, Diversification, SIPs*

I. Introduction

Financial sector over the last one and a half decade has seen a sea change. Liberalization in the governance rules has led to not only substantial growth in the financial sector but has also led to the introduction of large number of innovative financial instruments. Though all these developments are beneficial for the growth of the economies and the public, but the canvass has become highly complex. It has become really difficult to select the source of funding as well as the right investment option from among the wide range. Investments in gold, silver which were considered hundred percent safe for centuries has been belied totally. Many of the proven principles of financial investment have tasted dust. In an environment of high uncertainty where even the so called financial investment doyens look perplexed, the fate of an ordinary small investor can easily be imagined.
In such an environment, where people are finding it difficult to manage their finances, there is an urgent need to conduct intensive financial literacy campaign aimed at providing guidance, knowledge and skill regarding management of funds to a common man. Because financial decisions of the people decide the way in which the economic resources of a country get allocated and that in turn determines the long term growth potential of the country(Widdowson and Hailwood, 2007). Financial literacy campaigns are also important from the point of view that it will save people from economic hardship which is a cause of many bad evils in the society. Jump$tartCoalition which advocated in favour of financial literacy for the first time in 1997 defined financial literacy as "the ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security (Hastings, et al., 2012).OECD(2014) defines financial literacy as "A combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being."
Financial decisions of the people, which decide the future economic status of the individual and which also effects the most important factor i.e. pattern of allocation of a country's resources, are highly critical and need to be taken with utmost care. An attempt has been made in this paper to examine the level of financial literacy among the people who are already investing their funds in some investment options. The second section of this paper pertains to review of literature. In the third section, objectives of the study and the research methodology followed to pursue the objectives of the study are discussed. Fourth section deals with data analysis. Section fifth pertains to conclusion and recommendations.

Section-II
Review of Literature

Danes and Hira (1987)examined the knowledge of college students regardingpersonal loans, credit cards, record keeping, insurance etc. They reported that knowledge of males wasmore than females and married students had better knowledge as compared to bachelors. They further reported that the students coming from well off families had better knowledge as compared to students coming from poor families. They stated that the financial literacy level among the college students on overall basis was not good. **Volpe et al. (1996)**in their study conducted on business students of undergraduate courses stated that the financial literacy level among the respondents was low on average basis. The average score was 44% only. **Hogarth (2002)**in his study conducted to examine the level of financial literacy attained by adults in the United States found that bachelors were found to be less knowledgeable. He also found direct association between the qualifications, income level of the respondents with the level of financial knowledge possessed by them. He further found that middle aged respondents were more knowledgeable as compared to young and old people. **Beal and Delpachitra (2003)** assessed the level of financial literacy of university students from Australia. On the basis of responses taken from the students through a questionnaire, they found that university students lack both knowledge and skill. They further reported that financial literacy level was found to be positively associated with work experience and income level. **Van Rooij et al. (2011)** in their study reported that a large number of respondents were found to have fundamental financial knowledge about time value of money, interest rate compounding and inflation etc. They found that financial literacy positively affects the level of participation of the public in stock market investments.

Section III

Objectives of the Study

1) To evaluate the level of financial behavior and financial knowledge of the respondents
2) To examine the factors affecting financial knowledge

Research Methodology

This study is based on the primary data collected from the investors living in three main cities Jalandhar, Amritsar and Ludhiana. Data is collected through a pre tested structured questionnaire designed on the basis of questionnaires used in earlier studies by Chenand Volpe (1998), Bowen(2002), Prawitz et. al.(2006), Lusardi et al.(2010), Dew and Xiao(2011),OECD(2013). The score for financial knowledge was calculated on the basis of without choice questions, true/false questions and questions with multiple choice, score of 1 was awarded for every correct answer and for every wrong answer 0 was given. In respect of knowledge about the financial products, score of one was given to the respondent for every product with which the respondent expressed familiarity. Factors such as the age of the respondent, qualification, annual income, occupation and formal training/education in funds management were selected for examining the impact on financial knowledge of the investors. Following equation of linear regression model is used to check the association:

$$\mathbf{X_{fk} = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + \ldots\ldots\ldots\ldots + \epsilon}$$

Here X_{fk} represents level of financial knowledge (dependent variable), b1, b2 ……………….represents the coefficient of independent variable and x1, x2, x3………..represents respectively the independent variables i.e. age, income, qualification, occupation and formal training in management of finances and$\epsilon$is an error term. Besides, multiple regression, effect of each of the selected independent variable on dependent variable is examined separately using linear regression equation:

$Y = a + bx$

Section-IV
Data Analysis

Demographic Profile of the Respondents

Respondents selected for the purpose of this study belonged to various age groups, had different income levels and were from different occupations. Table 1 below gives detailed information about the profile of the respondents. 30.7 percent respondents were from the age group of above 35 to 45 years, 54% were from the age group of above 45 to 55 years of age. Around 25 percent of the respondents were graduates, 60 percent were post graduates and remaining 14.7 percent were having doctorate degree. 42 percent respondents had annual income between Rs. 11 to 15 lacs and 13 percent had income above Rs. 20 lacs. 30 percent respondents were businessman and 44 percent were from service class. 74 percent respondents stated that they took formal education in management of funds.

Table 1: Demographic Profile of the Respondents

Age In years	Frequency (%age)	Qualification	Frequency (%age)	Annual Income in Rs. Lacs	Frequency (%age)	Occupation	Frequency (%age)	Formal Funds Management Education	Frequency (%age)
25-35	00	Matric	00 (00)	5 -10	24 (16)	Business	45 (30)	Yes	110 (74)
Above 35-45	46 (30.7)	Graduation	38 (25.3)	11-15	63 (42)	Service	66 (44)	No	38 (26)
Above 45-55	81 (54.0)	Post-Graduation	90 (60)	16-20	44 (29)	Self Employed Professional	39 (26)		
Above 55	21 (15.3)	Doctorate	20 (14.7)	Above 20	19 (13)				

Financial Behavior

In this section of the paper responses regarding various aspects of the financial behavior are analysed. Out of 148 respondents it was found that 16 percent of the respondents were highly economical in meeting their daily needs, 40.7 percentage of the respondents stated that they sometimes, while making purchases, behave in an economical manner. 16 percent of the respondents stated that they act in a highly lavish manner while making purchases. So far as making savings on regular basis is concerned, 26 and 44 percentage of the respondents stated that they strongly agree and agree with this respectively. 10 percent respondents stated that they strongly disagree with the concept of saving money on regular basis. Further, a large number of respondents stated that they feel concerned about their financial resources. As can be seen from column titled 'concern' in table 2 below 58.7 and 34 percentage of the respondents respectively strongly agreed and agreed with the concept of concern about financial resources. Most of the respondents are of the view that they are efficient in management of finances as indicated in column titled 'Efficiency' in table 2 below. 44.7 and35.3 percentage of the respondents respectively stated that they are highly efficient and efficient in management of finances.

Whereas the choice between spending and savings is concerned, the respondents looked equally divided between the two given options i.e. save or spend. On being asked given the money, how would they like to utilize it, 5.3 percent of the respondents stated that they find it difficult to decide whereas the remaining respondents were found to be equally divided between spend and save options as indicated in column titled 'Spend Vs Save' in table 2 below. While making investment decision, one has to decide importantly about the risk he/she is ready to take. As indicated by the column titled 'Loss' of table 2 below, most of the respondents i.e. 34 percent disliked and 38 percent strongly disliked losing money invested by them i.e. they were not prepared to bear lose from investments.

Table 2: Frequency Table regarding various aspects of Financial Behavior

Spending Behavior		**Regular Saver**		**Concern**		**Efficiency**	
	Frequency (Percentage)		**Frequency (Percentage)**		**Frequency (Percentage)**		**Frequency (Percentage)**
Highly Economical	24 (16)	Strongly Agree	39 (26)	Strongly Agree	88 (58.7)	Highly Efficient	67 (44.7)
Sometimes Economical	61 (40.7)	Agree	66 (44)	Agree	51 (34)	Efficient	53 (35.3)
Can't Say	00	Can't Say	2 (1.3)	Can't Say	4 (2.7)	Can't Say	6 (4)
Sometimes Lavish	39 (26)	Disagree	26 (17.3)	Disagree	5 (3.4)	Inefficient	18 (12)
Highly Lavish	24 (16)	Strongly Disagree	15 (10)	Strongly Disagree	0	Highly Inefficient	4 (2.7)
Spend Vs Save		**Loss**		**Newspaper**		**Financial Position**	
	Frequency (Percentage)		**Frequency (Percentage)**		**Frequency (Percentage)**		**Frequency (Percentage)**
Strongly Agree	18 (12)	Strongly like	10 (6)	Strongly like	20 (13.3)	Always Short of Funds	45 (30.41)
Agree	46 (30.7)	Like	21 (14)	Like	33 (22)	Always Surplus	77 (52.02)
Can't Say	8 (5.3)	Can't Say	6 (4)	Can't Say	2 (1)	Neither Surplus nor Shortage	26 (17.57)
Disagree	50 (33.3)	Dislike	57 (38)	Dislike	42 (28)		
Strongly Disagree	26 (17.3)	Strongly Dislike	54 (36)	Strongly Dislike	51 (34)		

Knowledge about the financial scenario is must to take right investment decisions, however most of the respondents interviewed in this survey disliked reading financial newspapers. As indicated by the column titled 'Newspapers' in table 2, 28 percent respondents disliked and another 34 percent respondents strongly disliked the newspaper reading activity. Around 30 percent of the respondents always felt shortage of funds, around 52 percent stated that they always have surplus funds and around 17 percent stated that they neither face shortage nor surplus of funds.

Financial Knowledge

To assess the financial knowledge, a total of seven questions carrying a total score of 34 marks were asked from the respondents. The question were of true/false and multiple choice nature. Data regarding correct and incorrect responses obtained from the respondents about some of the very fundamental financial aspects asked is presented in table 3A below. The overall score obtained by the respondents is given in the table 3B. The level of financial knowledge possessed by the respondents was highly unsatisfactory. 51 percent respondents could not give the correct information about the nature of relationship between risk and return, responses of more than 64 percent respondents regarding the nature of relationship between risk and diversification were incorrect. Only 54.9 percent respondents could correctly attend to the query about the nature of relationship between rate of return and rate of inflation, 57 percent respondents were incorrect in stating the relationship between Rate of Interest and rate of Inflation. Response given in respect to relationship between Cash Reserve Ratio and Rate of Return was highly discouraging as more than 88 percent respondents were incorrect. More than 88 percent respondents didn't have the idea about the timing of entry in the market, around 86 percent respondents were ignorant about the risk attached with mutual fund schemes, 73.6 percent respondents didn't have the idea about fee they are paying while buying and selling the securities.

Table 3A: Knowledge about Fundamental aspects

Response	RRFrequency	RD Frequency	RI Frequency	INIF Frequency	CRRE	SIV	RFMF	Fee
Incorrect	75 (51)	96 (64.86)	67 (45.1)	84 (57)	133 (88.5)	132 (88.5)	128 (86.3)	109 (73.6)
Correct	73 (49)	52 (35.14)	81 (54.9)	64 (43)	15 (11.5)	16 (11.5)	20 (13.7)	39 (26.4)

Note: RR stands for relationship between Risk and Return; RD stands for Relationship between Risk and Diversification; RI stands for relationship between Return and Rate of Inflation; INIF stands for relationship between Fluctuations in Rate of Interest and Rate of Inflation; CRRE stands for relationship between CRR and Rate of Return; SIV stands for timing of investment by the small investors; RFMF stands for Risk associated with the investments in mutual funds and FEE stands for amount of fee charged by mutual funds

Table 3B below gives the information about the overall financial knowledge scored by the participants, it can be seen that 42.57 percent of the respondents could get score in the range of 15-30 percent, 48.65 percent respondents could score in the range of only 31-45 percent and the remaining 8.78 percent scored between 46-60 percent. Not only a large percentage of the respondents scored very low so far as knowledge about fundamental aspects of finances are concerned but it was astonishing to see that no respondent could score more than 60 percent score.

Table 3B: Overall Financial Knowledge Score

Score in Percentage	Frequency(Percentage)
15 -30	63(42.57)
31 -45	72(48.65)
46-60	13(8.78)

Factors Affecting Financial Knowledge

In this segment of the study, association is examined between financial knowledge score of the respondents with the experience of the respondents represented by age, general qualification of the respondents, formal education about financial management, income level of the respondents, occupation of the respondent and his financial position. Following research hypotheses were set to examine the association between the selected variables and financial knowledge score:

H0: There is no association between the financial knowledge possessed and experience(age) of the respondent

H1: There is no association between the financial knowledge possessed and general qualification of the respondent

H2: There is no association between the financial knowledge possessed and Income of the respondent

H3: There is no association between the financial knowledge possessed and formal qualification in funds management of the respondent

H4: There is no association between the financial knowledge possessed and occupation of the respondent

Table 4 below shows the result of regression analysis.

Table 4: Association Between Demographic Profile and The Financial Knowledge of the Respondents

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.034	2.283		2.643	.009*
Age	5.325	.500	.529	10.644	.000*
Qualification	.332	.510	.025	.650	.517
Annual Income	3.062	.445	.340	6.884	.000*
Occupation	-.690	.423	-.064	-1.631	.105
Financial Strength	.186	.654	.011	.284	.777
Training/Formal Education in Funds Management	3.537	.834	.192	4.239	.000*

*Significant @1%

As can be seen from table 4 above, the null hypothesis regarding association between experience of the respondent and his financial knowledge stands rejected. Experience and financial knowledge were found to be significantly associated at 1% level of significance. Similarly annual income of the respondents and formal training in funds management were found to be significantly associated at 1% level of significance with financial knowledge of the respondent. However, the association between occupation of the respondent, his general level of qualification and financial strength with the financial knowledge of the respondent could not be confirmed.

Section-V

Findings and Policy Remarks

Allocation of financial resources decides the fate of various sectors in an economy and allocation of financial resources depends on the financial behavior and financial knowledge of the residents of the country. Therefore, it is of utmost importance for the nation as a whole and the individual in particular to ensure that the financial decisions taken are correct. Moreover in the present highly complex scenario in which economies are highly sensitive to the developments taking place in each other because of their close integration, large number of financial investment and borrowing options and highly volatile financial scene there is urgent need to understand the financial behavior and the level of financial knowledge of the public. In this study an effort has been made to check the financial behavior and level of financial knowledge of the people who are making investment in financial instruments of various kinds on regular basis. On the basis of the responses of 148 respondents collected from the leading cities such as Jalandhar, Ludhiana and Amritsar, it was found that respondents were equally divided in the groups of economical and non-economical purchasers, majority of the respondents liked saving money on regular basis, more than 90 percent of the respondents stated that they always give importance to financial matters, so far as the financial knowledge of the respondents was concerned results were not highly encouraging as no respondent could score more than 60 percent marks and more than 90 percent respondents got less than 50 percent marks on the parameters related to financial knowledge.Financial knowledge of the people who are regular investors was found to be not so encouraging; therefore one will be skeptical about the level of financial knowledge about the people who are not frequent investors. Lack of financial knowledge adversely affects the confidence level which then results normally in non-utilization of funds thereby negatively affecting the growth prospective of the country or even if the courage is shown to invest the funds it may result in wrong appropriation of funds. As the economic fate of a country is closely linked with the financial knowledge of the investors, there is urgent need to work on enhancing the financial literacy level of the investors. Perpetual campaign aimed at enhancing the financial literacy among the members of general public may help in increasing the level of financial literacy as it was found that formal training in funds management and financial knowledge of the respondents were found to be significantly associated at 1% level of significance. All the financial institutions including stock exchanges, banks of all kinds, mutual funds etc. should be asked to mandatorily earmark a certain portion of their profits for conducting financial literacy programs.

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