What Determines The Financial Literacy: Evidence From Northern Indian

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Abstract - The purpose of this paper is to identify the various factors affecting financial literacy of the individual in the north region of India. To attain the objectives of the study, both quantitative and qualitative methods were employed. Judgemental sampling method was used in collecting the data. The data were collected from 542 respondents from the states of Chandigarh, Himachal Pradesh and Punjab. The study used a questionnaire developed by the Organisation for Economic Cooperation and Development (OECD, 2015). The results of this study comprises of step wise regression analysis. There were seven independent variables such as age, gender, marital status, education, occupation, income, area of residence and one dependent variable, i.e., financial literacy. The results of this study indicate that the gender, income, occupation and education have a significant relationship with the financial literacy, whereas the age, marital status, area of residence has no influence on financial literacy. Based on the results, it is recommended that policy-makers, regulators and other stakeholders in India should redesign their financial literacy programmes to enhance and strengthen the financial literacy skills of the individual through right policy.

Keywords: Financial literacy, Financial education, Determinants, Individual.

I. INTRODUCTION

Since India's independence, the priority for the county has been its economic growth, education for all and financial inclusion for the vast population of the country. India has made significant progress in the past six decades in all the areas of priority. In country like India, which has high young population, only 58.70 per cent of the households had access to banking services. Financial inclusion is of greater importance to them. Access to finance by the poor and vulnerable groups is must for poverty reduction and economic development of the country. The biggest component of financial inclusion and inclusive growth is financial literacy.

In today's complex financial system with complicated financial products, the need for financial literacy becomes inevitable (Gowri & Sekar, 2015). Individuals have always been responsible for managing their own finances. Individuals will not be able to make sound financial decisions and may be at risk of fraud, if they are not financially literate. But if individuals do become financially literate, they will be able to make sound financial decisions and will have positive effects on their savings and investment levels and economic growth of the country. Financially Literate individuals will make better financial decisions for their families, increasing financial and economic security and financial well-being. Secure families are better able to contribute to vital, thriving communities, further fostering community economic development. Thus, financial literacy is not only important for individual households and families, but also to their communities as well (Hogarth and Hilgert, 2002). Lack of basic financial skills contributes to personal hardship and broader economic risk. Financial literacy making people aware of what they can demand. Financial literacy is defined by OECD as "combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decision and ultimately achieve individual financial wellbeing.

Number of surveys and research studies has been conducted globally for measuring the financial literacy level of an individual. The results of the most of the survey on financial literacy have shown poor level of financial literacy (OECD Survey 2015, S & P Survey, 2015). As per S&P Global FinLit Survey (2015), financial illiteracy is widespread at the global level even in countries with well developed financial markets or high-per capita GDP. Individuals do not possess knowledge of basic financial concepts. In India, the level of financial literacy is very low (24 per cent) than worldwide average of financial literacy (66 per cent). The results of the survey confirms that financial literacy in India has consistently been poor

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compared to the rest of the world. Financial literacy is yet to become a priority for an average Indian.

Greater financial literacy is particularly important for economic growth of the country. During the first decade of the 21st century, the concept of financial literacy and financial education have gained a prominent position in the global policy agenda of policymakers, educators, community groups, government agencies, organizations, businesses. In India, the government, stakeholders and financial regulators have taken steps to increase the level of financial literacy through financial education programmes. Financial Literacy initiatives have been conducted through various channels including schools, road shows, films and pamphlets (Atkinson and Messy, 2013).

This study focuses on examining the various factors affecting financial literacy of individual in the north region of India.

II. REVIEW OF LITERATURE

In recent years, financial Literacy has been studied from different aspects since the world face financial crisis. Agarwalla et al. (2013) in their study found that financial knowledge of Indians is very low than the international standards. The authors observed that financial behavior and financial attitude of the employees and retired seems to positive. The financial knowledge of women are marginally higher than the men.

Hogarth and Hilgert (2002) examined the financial literacy of adults in the U.S. They used 28 true or false type questions on personal financial topics covering savings, credit, general financial management topics and mortgages. . For the purpose of this study, they surveyed 500 households using telephone survey. It was found by the authors that consumers were most knowledgeable about mortgages with average score 81 per cent, and less knowledgeable about credit with average score of 65 per cent, savings with average score 67 per cent and general financial management with 60 per cent average score. The findings of the study also showed that less financially knowledgeable adults were more likely to be single, households with low income, uneducated, minority and either young or old .

Bashir et al. (2013) in their paper stated that financial literacy is individual's ability to understand financial terms and instrument. In their study they used data from National Saving Centers of Pakistan which has been used fist time for research purpose in Pakistan. It was found by the authors from the result of the ordinary least square regression that individuals of Pakistan were financially illiterate and there existed a positive relationship between financial literacy and other psychosocial factors i.e hopelessness, religiosity, financial satisfaction , retirement plan intention and risk preference. It was found that age, marital status, age, qualification, occupation was positively related to financial literacy.

Morgan and Trinh (2017) examined the determinants of financial literacy and impacts of financial literacy in Cambodia and Vietnam. They found that overall financial scores in Cambodia (11.5) and Viet Nam (12.0) was lower than the range seen in a sample of 30 countries that have implemented the OECD/ INFE survey. The authors found that educational level, income, occupational status and age were the main determinants that affect financial literacy level. It was observed by the authors that both financial literacy and education levels were found to be positively related to savings behaviour and financial inclusion.

Lusardi et al. (2009) examined the relationship between financial literacy and respondents' socio-demographic, family and peer characteristics using the dataset of National Longitudinal Survey of Youth. The findings of this study showed that financial literacy was lacking among young adults. It was also found that women were less financially literate than men. It was observed by the authors that less than one-third of adults possesses knowledge about risk diversification, inflation and interest rate, It was also found that there was a strong relationship between financial literacy and socio-demographic characteristics and family financial sophistication.

Chen and Volpe (1998) in their study investigated the personal financial literacy of college students in USA and also investigated the relationship between the financial literacy level and gender, age, nationality, income, race, academic discipline, work experience and class rank. For the purpose of this study, the authors surveyed 924 college students from 13 campuses located in the USA. The findings of the study showed that academic discipline, class rank. And years of work experience were significantly different in terms of financial literacy of college students in USA. They found lower financial literacy level among non-business majors, students with lower class ranks and those with little work experience. In addition to this, they also found theta women were far less financially literate than men and foreign students were less knowledgeable than US citizens.

Sekar & Gowri (2015) (2015) in their study concluded that overall financial literacy level of Gen Y employees in Coimbatore city is 50.90 per cent which shows that city people of Coimbatore city are not still much aware about their financial related issues. The authors on the basis of the findings of the study suggested that financial literacy level varies significantly among Gen Y employees based on various demographic and socio economic factors. At the last, authors concluded that financial literacy level gets affected by gender, education, income, number of dependents, marital status but it does not get affected by age.

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Al-Tamimi (2006) examined the most and least influencing factors on the investor's behavior of UAE. The authors surveyed 343 individual investors. The author found that the most influencing factors were: corporate earnings, stock marketability, government holdings, get rich quickly, past performance of the firm's stock and the creation of the organized financial markets and the least influencing factors were religious reasons and family member opinions.

ACNielsen Research (2005) conducted a national survey of adult financial literacy in Australia. The findings of this survey indicated that the lowest levels of financial literacy were associated with people who have lower education, people with lower income, unemployed or unskilled workers, single people, and those at both extremes of the age profile. The results of this survey showed an overall improvement in the financial literacy level of Australians.

Mandell (2008) conducted a financial literacy survey among college students in 2008. The findings of the study shows that average accuracy rate of all the respondents is 61.9 5. The authors also found that the accuracy rate of Business or Economics major is 62.4 per cent which is higher than overall accuracy average rate but its is rate is lower than average accuracy rate of Engineering (63.2 per cent), Science (64.0 per cent) and Social Science (64.0 per cent). In addition to this, study conducted by Ansong & Gyensare (2012) revealed that level of study, work location , access to media , education of father and the sources of education on money has no influence on level of financial literacy.The household' access to financial services is not based on the financial literacy levels but based on other factors such as levels of income, distance from banks., age , marital status, household size , gender and level of education (Wachira,2012).

By reviewing the literature on the field of financial literacy, it was observed that financial literacy level was generally rather low and also found substantial differences between national economies and demographic cohorts (Stolper & Walter, 2017). Erner et al. (2016) conducted a survey among German high schools students and found weak performance on standard financial literacy measures. It was found that female students and those with a low level of integration showed significant lower financial literacy scores across measures. The authors stated that basic financial literacy is related to mathematical skills while sophisticated financial literacy is related to a student's general cognitive aptitude and foreign language skills. The authors recommend that subpopulation identified by these factors should be given attention in the development of more targeted financial literacy programmes.

A key question also arise whether financial education programmes can improve financial literacy. In this aspect, a number of research studies have been conducted by the researchers, but the results are open to doubt, and are affected by many specific aspects of the financial education programmes studied including content of the course, teacher's knowledge etc. Policymakers have embraced financial education as a necessary antidote to the increasing complexity of consumers' financial decisions over the last generation. Financial education has significant but very small effect of only 0.1 per cent of the variance in financial behaviours (Fernandes et al., 2014). Financial training can impact in exposing financial literacy of managers and their participation in the financial market. People with financial training course tend to affect financial literacy level. The more the people trained well the more they can make better decisions (Bayrakdaroglu & San, 2014). Tustin (2010) investigated the impact of the Bubomi Financial literacy flagship programmes developed by Absa Group Limited. The author measured the impact of the programmes by comparing the level of financial knowledge, attitude, confidence and accountable management practices of statistically representative experimental group and control groups residing in village areas surrounding the Giyani town in the Limpop province. The findings of the study showed that the financial knowledge, confidence, attitude and accountable management practices of the experimental group exceed that of the control group at a statistically significant level. Alsemgeest (2015) suggested that basic financial education is needed to manage day-today finances and financial education should focus not only on cognitive factors but also on non-cognitive and affective factors that might override rational decision making.

Objective of the Study:

- To find out the various factors affecting financial literacy of the individual in the north region of India.

III. RESEARCH METHODOLOGY

1.1 Research Design: For the purpose of this study, a survey was conducted in the north region of India. The respondents were selected from two states and one union territories of northern region of India, i.e., Himachal Pradesh, Punjab and Chandigarh. The data were collected using a structured questionnaire developed by OECD (2015). Judgemental sampling technique was used. A total of 600 questionnaires were sent to respondents out of which only 542 questionnaires were completed and used for the study.

1.2 Method of Data Analysis: In order to determine the various determinants of financial literacy, step-wise regression method was employed. The financial literacy score in terms of financial knowledge, financial attitude and financial behaviour was taken as dependent variable and demographics variables were used as independent variables. For the purpose of this study, the following hypothesis was developed.

Hypothesis 1:

H1: There is no significant relationship between financial literacy level and demographics profiles of individual.

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The hypothesis of this study has been tested with the help of ANOVA. The hypothesis has been tested at 5 per cent significance level.

2. Results and Discussions:-

➢ **Demographic Details of the Respondents:-**The demographics characteristics of the respondents show that about 69 per cent of the respondents are male and 31 per cent are female. 54 per cent of the respondents fall in the age group of 18-35 years and 34 per cent fall in the age group of 35-50years and 12 per cent fall in the age group more than 50 years. About 71 per cent of the respondents are unmarried whereas 25 per cent are married and around 4 per cent respondents are widow and separated. Majority of the respondents (35 per cent) are graduates, followed by 28 per cent are post graduate and around 27 per cent are professionals. About 42 per cent of the respondents are government employees and 34 per cent are private sector employees, 11 per cent are self employed, 7 per cent are homemaker and 3 per cent are retired. Around 40 per cent of the respondents have an annual income between Rs 1lakh- 5 lakh, followed by 30 per cent respondents have an annual income between RS 5-10 lakhs annually, followed by 25 per cent respondents have an annual income less than Rs. 1 lakh. Only 5 per cent respondents have higher income level (>10lakh). It is observed that majority of the respondents are living in urban area (60 per cent), followed by rural area (26 per cent) and then by semi-urban (14 per cent).

➢ **Reliability Statistics:** Since the value of Cronbach alpha for the financial literacy scale which consist of financial knowledge, financial behaviour and financial attitude, was more than 0.7, therefore, scale was considered to be reliable.

➢ **Determinants of Financial Literacy:- Step-wise Regression Analysis**

The step-wise regression method is used to test the significance of relationship between financial literacy (dependent variables) and socio-demographic variable (independent variables). This method shows the effect of an independent variable has on the dependent variable when one of the independent variable is varied, while other remains fixed. It is also used to create a model equation in order to determine the effect of independent variables on the dependent variable. Stepwise method filtered out the significant variables which are influencing financial literacy of the respondents. Thus, the equation is given as:

$$\mathbf{Y = \alpha + X_1\beta_1 + X_2\beta_2 + X_3\beta_3 + X_4\beta_4 + X_5\beta_5 + X_6\beta_6 + X_7\beta_7 + e}$$

Where Y is the Financial Literacy **,** α is the intercept ,e is the error Component , all X is the Independent Variables. $\mathbf{X_1}$= Age , $\mathbf{X_2}$= Gender, $\mathbf{X_3}$= Marital Status , X4= Education, $\mathbf{X_5}$= Occupation, $\mathbf{X_6}$= Income level, $\mathbf{X_7}$= Area of Residence.

Table 1: Step-Wise regression analysis between the Financial Literacy Level and all independent variables (Model Summary)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.151[a]	.023	.021	1.21093
2	.185[b]	.034	.030	1.20507
3	.210[c]	.044	.039	1.19988
4	.232[d]	.054	.047	1.19488

a. Predictors: (Constant), Occupation

b. Predictors: (Constant), Occupation, Education

c. Predictors: (Constant), Occupation, Education, Income

d. Predictors: (Constant), Occupation, Education, Income, Gender

As shown in Table1, the value of R square is 0.054 which means that 5.4 per cent variation in financial literacy is because of selected variables under step-wise regression.

Table 2: Multiple linear regression analysis between the Financial Literacy and all independent variables (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19	1	18.50	12.62	.000[b]
	Residual	792	540	1.47		
	Total	810	541			
2	Regression	28	2	13.80	9.50	.000[c]
	Residual	783	539	1.45		

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	Total	810	541			
3	Regression	36	3	11.92	8.28	.000[d]
	Residual	775	538	1.44		
	Total	810	541			
4	Regression	44	4	10.91	7.64	.000[e]
	Residual	767	537	1.43		
	Total	810.334	541			

a. Dependent Variable: Financial Literacy Level

b. Predictors: (Constant), Occupation

c. Predictors: (Constant), Occupation, Education

d. Predictors: (Constant), Occupation, Education, Income

e. Predictors: (Constant), Occupation, Education, Income, Gender

Table 2 shows that, since F value is significant at 5 per cent level of significance, therefore the overall regression model with the four independent variables is good to explain financial literacy. There is a statistically significant relationship between four demographics variables i.e. occupation, education, income and gender and financial literacy.

Table 3: Multiple linear regression analysis between the Financial Literacy and all independent variables (Coefficients of Determination).

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.264	0.099		22.875	0.00
	Occupation	-0.147	0.041	-.151	-3.552	0.00
2	(Constant)	1.824	0.202		9.041	0.00
	Occupation	-.139	0.041	-0.144	-3.388	0.00
	Education	0.190	0.076	0.106	2.503	0.01
3	(Constant)	1.408	0.266		5.293	0.00
	Occupation	-0.103	0.044	-0.106	-2.347	0.01
	Education	0.195	0.076	0.109	2.579	0.01
	Income	0.153	0.064	0.107	2.382	0.02
4	(Constant)	1.136	0.289		3.927	0.00
	Occupation	-0.089	0.044	-0.092	-2.019	0.04
	Education	0.178	0.076	0.099	2.343	0.02
	Income	0.176	0.065	0.123	2.719	0.01
	Gender	0.141	0.060	0.101	2.347	0.01
a. Dependent Variable: Financial Literacy Level						

Table 3 shows that the value of standardized regression coefficient for occupation shows negative value means decreases financial literacy of the respondents. Regression standardized coefficient for education shows significant positive relationship between education and financial literacy of the respondents, i.e., higher the education, higher will be the financial literacy of the respondents. Regression coefficient value for income is positive and significant which means there exists a positive significant relationship between income and financial literacy of the respondents i.e., higher the income, higher will be their financial literacy. Regression coefficient value for gender shows a positive significant relationship between gender and financial literacy of the respondents. It is concluded that education has the strongest influence on the financial literacy level of the respondents among all the independent variables.

IV. Conclusion

It is concluded that the stepwise regression results show that there is significant impact on financial literacy when the independent variables are regressed together. The results of the above equation showed that there are positive relationships between financial literacy and demographics

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variables i.e education, income and gender. In addition, the other construct which is occupation have a negative relationship with the financial literacy of the respondents. The results obtained in this study may be a good reference for future research related to financial literacy and its determinants. However, additional research is needed to get deeper understanding of this area and must examine other variables like cultural variables, parental educational qualification, psychological variables etc that might influence overall financial literacy of the individuals. The main limitations of this study are the small sample size and restricted to only north region of India. Therefore, it is recommended that future researches should be conducted in different region of India with larger sample size. It is suggested that policy makers, government and regulators should increase efforts in order to improve financial literacy of individuals through various financial literacy programmes.

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