

An Empirical Analysis of Demographic Diversity on Estimated Financial Capability Score

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ABSTRACT

In the recent past, there have been drastic changes in the use of technology in financial sector in India. After demonetization, the country has faced tremendous growth in online transaction, may it be payment of fruits and vegetables or paying insurance premium. This has made internet a necessity rather than a mere need. At the same time, the need of financial literacy and capability cannot be denied. It has been recognized as an essential life skill for all the individuals. Besides the recent changes in socio-legal and political environment has made financial literacy mandatory for all. Financial Literacy incorporates skills, behaviour, knowledge and attitude that enhances the financial capabilities. One of objectives of the paper is to analyse the financial knowledge, attitude and behaviour of respondents in Jaipur city with respect to demographic factors and also analyse the impact of financial literacy score on financial capability of the respondents. The data has been collected through convenience sampling method from 200 respondents of various classes through structured questionnaire. The paper attempts to determine the impact of certain selected demographic factors on the financial literacy score and financial capability.

Keywords: Financial Literacy, Financial Capability, Demographic Factors

INTRODUCTION

The role of financial knowhow in being educated, cannot be denied. Financial Education helps an individual to take rational financial decision which is helpful for ensuring economic wellbeing. Financial education, which use to be a part of general mathematics has gained importance as a separate discipline in the recent past. It not only deals with daily financial aspects but also helps in ensuring long term financial growth of an individual. It is becoming a key feature in decision making on all the issues related to financial resources in our day-to-day life. Therefore, it is very important for a person to be financially capable in order to have sustainable survival.

Financial capability is the internal capability to act in one's best financial interest, given socio-economic environmental conditions. It encompasses the knowledge, attitude, skills and behaviours of consumers with regard to managing their resources, and understanding, selecting and making use of financial services that fit their needs. (Financial Capability survey around the world, August 2013). Financial capability and financial literacy are used inter- changeably but both the terms are different and interrelated, at the same time. Financial literacy emphasised knowledge, understanding and awareness. It is one of the aspect of Financial capability.

Financial capability is a broader term which emphasises the relevance of consumer behaviour, decision making and practical ability as well as the importance of outside help to achieve sustainable change in financial behaviour. (Schürz & Wagner, 2006). This means, financial capability is the applied aspect of financial literacy. It focuses on respondents' attitudes (towards risks, the future, specific financial operations, etc.) and their behaviour rather than on knowledge and skills (understanding of financial and economic concepts, characteristics of financial products, etc). It can be said that financial literacy leads to better financial capability.

Each person can acquire the skill of financial capability in gradual manner with experiences and is affected by various factors including demographic, economic and others. The present paper is an attempt to study and analyse the financial literacy (knowledge), attitude and behaviour of the respondents towards the management of personal finances as financial capability with respect to certain demographic attributes namely, age, education and annual family income.

REVIEW OF LITERATURE

According to a research by MCFR (2007), it was found that a financially literate citizen is well-oriented in dealing with financial resources (money and prices) and capable of managing responsibly personal/family finances and budget including financial assets management and other financial commitments with changes in personal life requirements and needs. (MCFR, 2007). Szovics (2012) explained that for measuring financial literacy level certain indicators must be determined and used along with using the financial literacy index as a benchmark so that the consumer-oriented financial knowledge can be compared for effective financial management purpose at an individual basis. These indicators are designed to measure four aspects-namely, management of finances (developing a family budget and checking category wise income and expenses), financial income and expenses planning (analysing future needs and aligning with budget, selecting suitable banking/financial products (by continuous monitoring products, analysing and choosing the right ones according to specific needs and circumstances), information database of financial product providers (Szovics, 2012) (consumer information about the provider of the service for a particular category).

According to the Kovalcikova, Smoron, & Stenk, (2011) the financial literacy is the ability to use the knowledge, skills and experiences for effective managing of an individual's own finance with an aim to provide for his life-long financial security. It is the indication of the state of regular development that allows a person to response effectively to new personal financial facts and to respond to the dynamic economic environment." (Kovalcikova, Smoron, & Stenk, 2011). Bernheim and Garrett (2003) explored that financial literacy is a specialized part of economic literacy related with the ability to ensure income, ability to move on the labour market, to be able make decisions about own finances and realize the possible consequences of the these decisions on the personal current and future income. They identified that the financial literacy is divided into: monetary (cash management, and noncash form, managing of the financial operations), price (understanding of price mechanism operations and inflation) budget (creating and maintaining personal or family budget). It is also an attempt to achieve and management of resources and liabilities (Kovalčíková, Smoroň, & Stenk, 2011).

It has been found in recent studies that the recent technological advancements of accessing and analysing information allowing industry to create and profit from more complex and riskier financial products offered to a broader array of people a consumer finance revolution, which has given to people more noticeable choices and provide more control over their personal management of credit, insurance, retirement planning, and other financial decisions. (Willis, 2008). It has also been revealed in the studies that consumers increased their financial knowledge in time, does not show improved financial behaviour that these consumers used gained knowledge (Wiener, Baron-Donovan, Gross, & BlockLieb, 2005). According to Jean Chatzky (2012), Learning financial concepts (literacy) is one thing, but putting them in practice (capability) is the more difficult component. People who have a good grasp on what they need to do and what their goals are may still wrestle with the actual implementation due to deeply entrenched current behaviours. The key is to change habits. (Rogers, N.D.) It was clear from the development work of Adele Atkinson (2007)

that financial capability is not a straightforward concept to identify, much less to measure. It is a term encompassing four different areas, or 'domains': managing money, planning ahead, choosing products and staying informed. (Atkinson, 2007)

It is also considered that financial capability as a set of personal characteristics influenced by micro- and macroeconomic factors. On this basis, they can examine the range of financial services and the depth of financial capability. Financial capability depth is then seen as including personal features organised around three axes: 1) financial knowledge and understanding; 2) skills and competence; and 3) responsibility. Financial capability can be understood as a process evolving along both following dimensions: the personal life cycle and the current trends in the economy. (Collard & Frade, N.D.) Financial literacy mainly focuses on the understanding of economic and financial concepts (e.g., compound interest) and knowledge about financial instruments (e.g., mutual funds vs. Stock) Financial capability is considered a broader concept that also highlights action and behavior of the individual, and the relevance of outside institutions and regulations (Groot, 2011).

According to OECD/INFE (2015), Young people are relatively well prepared for many of the financial decisions that they are likely to make in the short term and are aware of some of the consequences of decisions they make. They will be acting on their own initiative to undertake simple financial tasks such as checking bank statements and may begin to identify ways of improving existing services and products or developing new businesses without prompting from others. (OECD/INFE Core Competencies Framework on Financial Literacy for Youth, 2015). According to Williams & Oumlil (2015), there is considerable concern among students, parents, marketers and public policymakers regarding deficiencies in financial knowledge and capabilities among the young adult population and the resultant consequences. Students have massive student loan debt, collectively, and there is a multifaceted clarion call to develop integrative solutions to this daunting scenario. (Williams, Oumlil, & Williams, 2015) Further, the study finds the low levels of financial literacy in Kerala. The very high general literacy rate and educational attainment of the state of Kerala seem to have little effect on financial literacy. The gender, marital status, age, religion, education, the discipline of study, occupation, work experience, income, and parents' education and their occupation influence financial literacy at varying levels of statistical significance. (Kiliyanni & Sivaraman, 2016)

It is also revealed from the study that the financial literacy is associated with better financial planning. Financial literacy is higher among respondents with higher education and with married respondents. It is also much lower among women. (Agarwal, Amromin, Ben-David, Chomsisengphet, & Evanoff, 2015) It has been observed that there are several problems faced by Indian women due to which they lack in financial literacy such as cultural barriers, physical barriers, psychological, and financial barriers etc. (Baluja 2016). It has also been found from the study that financial literacy of the working young in urban India is not significantly higher than in other countries. While education improves financial literacy, higher incidence of general college education does not by itself appear to be sufficient to achieve an adequate level of financial literacy. The influence of joint-family and consultative decision making process, attributes that are perhaps more prevalent in India, on financial literacy demonstrate the importance of contextual variables. (Agarwalla, Barua, Jacob, & Varma, 2015)

Clercq (2009) studied that financial literate students will become more confident and knowledgeable investors in determining their future investment need by acquiring more specific skills, attitudes and fundamental knowledge about financial literacy as changes in employment patterns, retrenchments and the high unemployment rate in several countries are at high pace. Chen & Volpe (1998) explored that participants from different class ranks have different levels of financial knowledge. They also found that women are less knowledgeable than men even when they learn personal finance from their parents. They further claimed that average women know less about personal finance than men as they either do not know the basic fact, terminology, or concept of personal finance or they do not perform well in mathematical aspect of finances. In a study it was found that men are more confident about their knowledge of investing than women and they also appear to know more about investing (Goldsmith & Goldsmith, 2006). In this study, there was diversification with respect to definition of financial literacy, financial capabilities as well as demographics. It is found that financial literacy focuses on financial knowledge as well as skills whereas financial capability focuses on behaviour aspects.

OBJECTIVES

The present paper attempts to fulfil the following objectives:

- (a) To estimate the score of financial capability of the respondents
- (b) To analyse the financial capability score of the respondents with respect to gender, annual income and educational background.

RESEARCH METHODOLOGY

The present paper analyses an adequate sample by collecting relevant data in a structured questionnaire which is divided into three blocks. The first block comprises of general and demographic information about the respondents like name, age, gender, marital status, location, annual income and monthly expenses. The second block of the questionnaire comprises of 11 questions which inquire about the attitude of the respondent about day to day financial aspects. In the same block, the respondents are further asked about the application aspect of the financial decision which they take through 17 questions.

The last block of six multiple choice questions has been adapted from (Rooij, Lusardi, & Alessie, 2009). Out of six questions, three are of basic and remaining three are of advanced financial knowledge. The combination of these will result in the construction of a factor which will evaluate the level of financial literacy of the respondents.

For assessing financial attitude, (Shockey, 2002) has developed a scale comprising of 9 questions the response of which are based on 5-point Likert Scale. Two more questions have been added for better assessment based on investment and offline purchases. The average score of all has been calculated to evaluate the financial attitude of the respondent.

Financial behaviour has been evaluated using 17 question from sources like (Johnson, 2001), (Shockey, 2002), (Chen & Volpe, 2002) and (Potrich, Vieira, Coronel, & Bender Filho, 2015). The questions have been moderated as per Indian context. The average score of all the questions asked evaluated score of overall financial behaviour of the respondent.

ANALYSIS AND INTERPRETATION

The study aims at analysis of financial knowledge, attitude and behavior of respondents with respect to gender and stream of formal education and annual family income, independent sample t-test has been used for analysis.

Following are the analysis and interpretation of the results:

Hypothesis H01: There is no significant difference between the two genders regarding the three aspects of financial capability (financial literacy, attitude and behavior)

Table 1: Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Total Score of Financial Literacy	Male	210	2.58	1.350	.093
	Female	90	2.30	1.554	.164
Average Attitude	Male	209	3.884	1.01830	.07044
	Female	90	3.6939	1.10625	.11661
Average Behaviour	Male	209	3.6091	.95037	.06574
	Female	90	3.4170	1.01838	.10735

Table 2: Independent Samples Test (Gender)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff	Std. Error Diff	95% Confidence Interval of the Diff	
									Lower	Upper
	Equal variances assumed	3.325	.069	1.577	298	.116	.281	.178	-.070	.632
	Equal variances not assumed			1.491	149.277	.138	.281	.188	-.091	.653
AvgAttitude	Equal variances assumed	2.601	.108	1.444	297	.150	.19036	.13181	-.06903	.44975
	Equal variances not assumed			1.397	156.861	.164	.19036	.13623	-.07873	.45944
AvgBehaviour	Equal variances assumed	.568	.452	1.568	297	.118	.19207	.12245	-.04892	.43306
	Equal variances not assumed			1.526	158.721	.129	.19207	.12588	-.05654	.44068

The Table 1 above indicates that 201 males has mean score of 2.58 for financial Literacy, 3.8843 for financial attitude and 3.6091 for financial behaviour with standard deviation of 1.350, 1.01830 and 0.95037 respectively for the three aspect of financial capability. It is further indicated that 90 females have scored 2.30 for financial literacy, 3.6939 for financial attitude and 3.4170 for financial behaviour with standard deviation of 1.554, 1.1062 and 1.01838 respectively for the three aspects of financial capability

It can be observed from Table 2 that mean scores of all the three aspects do not differ significantly at 95% confidence level ($p < 0.05$) as reported by the values 0.069, 0.108 and 0.452 being more than 0.05. This accepts the null hypothesis.

Hypothesis H02: There is no significant difference between commerce and non-commerce streams of formal education regarding the three aspects of financial capability (financial literacy, attitude and behaviour)

The Table 3 above indicates that 128 respondents having commerce stream has mean score of 2.59 for financial literacy, 3.7976 for financial attitude and 3.5869 for financial behavior with standard deviation of 1.406, 1.10220 and 1.00117 respectively for the three aspect of financial capability. It is further indicated that 172 respondents from non-commerce stream have scored 2.43 for financial literacy, 3.8490 for financial attitude and 3.5246 for financial behavior with standard deviation of 1.427, 1.00703 and 0.95458 respectively for the three aspects of financial capability.

	Stream of N	Mean	Std. Deviation	Std. Error Mean
Total Score of Literacy	Commerce	128	2.59	1.406
	Non-Commerce	172	2.43	1.427
AvgAttitude	Commerce	128	3.7976	1.10220
	Non-Commerce	171	3.8490	1.00703
AvgBehaviour	Commerce	128	3.5869	1.00117
	Non-Commerce	171	3.5246	.95458

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total Score of literacy	Equal variances assumed	.516	.473	.941	298	.348	.156	.166	-.170	.481
	Equal variances not assumed			.943	275.911	.347	.156	.165	-.169	.481
AvgAttitude	Equal variances assumed	2.232	.136	-.420	297	.675	-.05143	.12258	-.29267	.18980
	Equal variances not assumed			-.414	259.584	.679	-.05143	.12418	-.29597	.19310
AvgBehaviour	Equal variances assumed	1.363	.244	.546	297	.585	.06226	.11393	-.16195	.28647
	Equal variances not assumed			.543	266.472	.588	.06226	.11472	-.16360	.28812

It can be observed from Table 4 that mean scores of all the three aspects do not differ significantly at 95% confidence level ($p < 0.05$) as reported by the values 0.473, 0.136 and 0.244 being more than 0.05. This accepts the null hypothesis.

Hypothesis H03: There is no significant difference between lower and higher income group regarding the three aspects of financial capability (literacy, attitude and behaviour)

	Annual Family Income	N	Mean	Std. Deviation	Std. Error Mean
Total Score of literacy	>= 3	191	2.59	1.414	.103
	< 3	110	2.35	1.417	.135
AvgAttitude	>= 3	191	3.8292	1.04139	.07575
	< 3	110	3.8231	1.06223	.10128
AvgBehaviour	>= 3	191	3.5160	.96843	.07044
	< 3	110	3.6118	.98399	.09382

The Table 5 above indicates that 191 respondents with lower income level has mean score of 2.59 for financial literacy, 3.8292 for financial attitude and 3.5160 for financial behavior with standard deviation of 1.414, 1.04139 and 0.96843 respectively for the three aspect of financial capability. It is further indicated that 110 respondents from higher income group have scored 2.35 for financial literacy, 3.8231 for financial attitude and 3.6118 for financial behavior with standard deviation of 1.417, 1.6223 and 0.98399 respectively for the three aspects of financial capability.

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff	Std. Error Dif	95% Confidence Interval of the Difference		
										Lower	Upper
Total Score of literacy	Equal variances assumed	.037	.847	1.457	297	.146	.247	.170	-.087	.581	
	Equal variances not assumed			1.456	227.556	.147	.247	.170	-.087	.582	
AvgAttitude	Equal variances assumed	.008	.929	.049	297	.961	.00610	.12581	-.24149	.25370	
	Equal variances not assumed			.048	224.353	.962	.00610	.12647	-.24313	.25533	
AvgBehaviour	Equal variances assumed	.001	.973	-.819	297	.413	-.09574	.11683	-.32565	.13418	
	Equal variances not assumed			-.816	225.066	.415	-.09574	.11732	-.32692	.13545	

It can be observed from Table 6 that mean scores of all the three aspects do not differ significantly at 95% confidence level ($p < 0.05$) as reported by the values 0.847, 0.929 and 0.973 being more than 0.05. This accepts the null hypothesis.

INTERPRETATION

As it can be seen that in all the above cases the null hypothesis gets accepted indicating there is no significant difference between the aspects tested. There are some interesting facts observed which are as follows:

- As the null hypothesis H01 is accepted with respect to gender, when tested at 5% level of significance. It indicates that learned females have equally good financial acumen as that of males in Jaipur city. This shows equal reliability and confidence in making personal financial decisions. If closely observed, or tested at 10% level of significance, it may be observed that the null hypothesis may be rejected, thereby

concluding that there is significant difference in the mean scores of male and female with respect to financial literacy level but at the same time the hypothesis regarding financial attitude and financial behaviour are accepted. This concludes that financial literacy being not as good as those of males, females still equally perform as good as those of males when its financial attitude and financial behaviour. This may be due to females doing multiple jobs, being the house lady.

- The mean scores of financial literacy were reported very low whereas the mean scores of financial attitude as well as financial behavior are high. It indicates that the tendency of the respondents to behave and act financially smart is good but the financial decisions lacking proper financial capability may result in wrong decision and may create a risky position for them.
- Further, both males and females are found better in attitude than behaviour. The average scores of attitude for males 3.8843 and females 3.6939 is reported to be more than that of average score of financial behaviour which is 3.6091 and 3.4170 for males and females respectively. This shows that both are hesitant in taking financial decision. This may be because of less confidence because of less financial literacy.
- The null hypothesis H02 got accepting concluding that the financial literacy score is independent of the stream of literacy a person has in graduation or post graduation, the score of financial literacy being very less i.e., 2.59 for commerce and 2.43 for non commerce stream respondents. At the same time the financial attitude score for both category participants (3.7976 for commerce and 3.8490 for non commerce graduates) are reported to be less than the average score of financial behaviour (3.5869 for commerce and 3.5246 for non commerce), clearly indicating lack of confidence in taking financial decisions because of less financial knowledge and skills (financial literacy) as evident from scores.
- When null hypothesis H03 was tested at 5% significance level, the same got accepted indicating no significant difference in score of financial literacy, financial attitude as well as financial behaviour with respect to diversity in income. For this purpose, 3 lacs was taken as cut point. The total financial capability score was estimated at 2.59 for people less than 3 lacs of income whereas it is 2.35 for people of income higher than 3 lacs income per annum. The average attitude for both the income groups has come to be similar but the scores are less than those of financial behaviour.

CONCLUSION

The Government of India made an attempt of financial inclusion which was much needed to increase the financial literacy and thereby financial capability. Not fully, but to some extent the efforts of government was successful. The demonetization announced in 2016 also played a catalytic role in financially include the excluded population but the use of bank accounts, understanding about finances and thereby the behaviour need training of people at grass root level which is one of the outcome of the above study. The skill and attitude will then follow and will reflect in the behaviour of financial decision taken by people. This in the due course will increase the investment, insurance, banking habits of public which in the due course may bring financial prosperity in the nation, which is the ultimate aim of all the Economies of the World. This pronounced as “बहु नहतिय, बहु नसु ाय by Kautailya in his famous book “Arthashastra” some centuries ago.

LIMITATION OF THE STUDY

The study is based on respondents of Jaipur City only and it has the geographical limitation. It may not replicate rural India where there is more intensity financial incapability. Further, there may be other aspects which otherwise would have included in the questionnaire for accessing the three aspects of financial capability which may have better given the scores.

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