

Financial Literacy and Financial Wellbeing among Indian Households

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Abstract

This study is conducted to explore the impact of financial literacy on financial wellbeing of Indian households. Various measures like financial knowledge, financial attitude, and financial behaviour were assessed using survey data of 47,132 Indian households taken from the Financial Inclusion Insights (FII) survey, wave 5, conducted by Intermedia. The results from logistics regression indicate that financial knowledge (objective and subjective), financial attitude and financial behaviour are significant predictor of financial wellbeing. It is evident from the study that both financial attitude and financial behaviour of an individual strongly and positively influence financial wellbeing. Though actual financial knowledge might not influence much financial wellbeing whereas subjective financial knowledge i.e., self-assessed financial knowledge might strongly impact financial wellbeing in case of deviation between actual and self-assessed knowledge. Financial wellbeing significantly varies with age, education, working profile and urban-rural area category while gender attribute does not significantly impact financial wellbeing.

Keywords: financial literacy, financial knowledge, financial attitude, financial behaviour, financial wellbeing

1. Introduction

With the introduction of new financial products and services worldwide and increasing accessibility, the small investors have got a wider choice for investments as well as borrowings. Understanding of the complexities involved with these financial products is an important factor for the proper fulfilment of the purpose and needs. Financial literacy can be defined as the combination of financial knowledge, financial awareness, skills, financial attitude and financial behaviour that is required to make thorough financial decisions which would eventually achieve individual financial wellbeing (OECD, 2017). There is an increase concern over long term financial wellbeing of an individual in the recent years due to economic uncertainty, rising cost of living and dwindling public support system especially in developing countries. Financially naive investors would be finding a challenge to make any kind of complex financial decisions (Lusardi & Mitchell, 2014; Bajo, Barbi, & Sandri, 2015). Thus, it becomes essential to evaluate the level of financial literacy that would empower the people to make well informed financial decisions leading to their secure future. In 2016, OECD conducted survey to compare the financial knowledge, behaviour, attitudes and inclusion of 101,596 adults aged 18 to 79 in 21 countries and found the average score of 60% indicating that there is substantial possibility for enhancement in terms of overall levels of financial literacy (OECD, 2016). The S&P Global FinLit Survey conducted in 2015 found that worldwide, only one-third of adults are financially literate (Klapper, Lusardi & Oudheusden, 2015). NCFE-Financial Literacy and Inclusion Survey (FLIS) conducted by National Centre for Financial Education (NCFE) in all the 28 states and 7 Union Territories of India to assess the financial literacy of Indian households found only 20% overall financial literacy (NCFE, 2015). ANZ Survey of Adult Financial Literacy in Australia and New Zealand since 2002 has been evolved from just measuring financial literacy level primarily based on financial knowledge to behaviourally-based financial capability in 2011 and later in 2017 adopted the Financial Wellbeing conceptual model developed by Kempson, Finney, and Poppe (2017). Financial literacy would be essential to make comprehensive financial decisions based on individual situations to improve financial wellbeing. According to Australian Securities and Investments Commission (ASIC), enhanced financial literacy can help all irrespective of socio-demographic attributes by assisting in making best use of money, understanding and managing financial risk, and also guiding properly to avoid financial downsides which could overall have a constructive effect on the financial wellbeing of individuals and society (ASIC, 2014).

The purpose of this study is to assess the financial literacy of Indian households and ultimately finding the

factors that would be crucial for financial wellbeing. This study is useful from the perspective of studying the attributes that could enhance the social-economic life of the people. This study has been divided into various sections as follows: Section 1 is about Introduction, literature review is discussed in section 2, and section 3 describes about research questions and research hypothesis. Research methodology and data used in this study is described in section 4, results and findings are explained in section 5 and in the last, section is about conclusions and implications of the research.

2. Literature Review

2.1 Financial Literacy

Worldwide surveys conducted in the past have indicated a huge concern over low level of financial literacy across the nations (Atkinson & Messy, 2012; S&P, 2014; NCFE, 2015; ANZ, 2015; OECD, 2017). Many studies have documented the linkage between financial literacy and financial behaviours (Delavande, Rohwedder, & Willis 2008; Hsu 2011; Sekita, 2011; Fornero & Monticone, 2011; Arrondel, Majdi, & Savignac, 2012; Agnew, Bateman, & Thorp, 2013; Jappelli & Padula 2013; Asaad, 2015; Loke, 2015).

Asaad (2015) explored the influence of financial literacy on financial behaviour and found both financial knowledge and confidence to be important component and statistically significant predictor of financial behaviour. Potrich, Vieira, and Mendes-Da-Silva (2016) constructed a model on the argument that financial behaviour is preceded by both financial knowledge and attitude and results indicated that financial behaviour is positively impacted by financial knowledge and financial attitude. Lack of financial literacy significantly impacts the investment decisions (Al-Tamini & Kalli, 2009; Rooij, Lusardi, & Alessie, 2012; Bajo et.al, 2015; Sabri, 2016; Mouna & Anis, 2017; Mishra, 2018). Sivaramakrishnan, Srivastava, and Rastogi (2017) conducted a survey in four cities of India to study the influence of financial literacy on stock market investment decisions and found that objective financial literacy affect behaviour while both objective and subjective financial literacy significantly influence investment intention that predicts actual stock market investments (behaviour). In this study, it was found that behaviour was predicted by objective financial literacy, financial well-being and investment intention. Subjective financial literacy significantly influences investment intention whereas investment intention found to be significantly and positively related to equity holding. Attitude to investment Behaviour was found to have negative impact on behaviour i.e., restraining to investing.

There could be divergence between actual financial knowledge and self-assessed knowledge i.e., subjective financial knowledge (Lusardi & Mitchell, 2014). Both objective and subjective financial knowledge influence financial behaviour while subjective financial knowledge relatively having a more impact on behaviour (Robb & Woodyard, 2011; Asaad, 2015; Allgood & Walstad, 2016). Level of knowledge of business major students compared to non-business students found to be statistically significant and less knowledgeable students are most likely to make wrong opinions and inappropriate financial decisions which might impact their ability to take well-informed personal finance decisions (Chen & Volpe, 1998). A study conducted by Henager and Cude (2016) in the United States of America established that for younger persons subjective financial knowledge was strongly related to long- and short-term financial behaviour whereas in older age people, objective financial knowledge found to be more strongly associated with long term behaviour. High level of financial knowledge might not be necessarily related with better financial behaviour. A person having more financial knowledge might not be a good financial planner and vice versa i.e., being highly financial knowledgeable does not enhance the chances of being better financial planner and vice versa (Alhenawi & Elkhail, 2014; Adam, Frimpong & Boadu, 2017). Financially savvy investors would be able to diversify risk (Abreu & Mendes, 2010). Financial literacy and risk aversion significantly impact retirement portfolio allocation choice i.e., who were having high financial knowledge would hold more risky assets in their retirement portfolio (Larson, Eastman & Bock, 2016; Mahdzan, Mohd-Any, & Chan, 2017). Agarwalla, Barua, Jacob, and Varma (2013) measured level of financial literacy of the young employees in 6 major cities across the India and positive significant relationship between financial knowledge and financial behaviour while no association observed between financial knowledge and attitude.

Arifin (2017) examined the working people of Jakarta to investigate the impact of financial knowledge, point of control and income level on financial behaviour. The study found the positive influence of financial knowledge and locus of control on financial behaviour while observed no impact of income on financial behaviour. Jacobs-Lawson and Hershey (2005) investigated 270 young working adults in United States to observe the impact of retirement planning knowledge, future time perspective, and risk tolerance on retirement saving tendencies and the results indicated the positive impact. High level of financial literacy would enhance the probability of better planning for retirement, more savings for emergencies and less usage of high-cost borrowings (Behrman, Mitchell, Soo, & Bravo, 2012; Scheresberg, 2013; Lusardi & Mitchell, 2014). Less

financial literate people may hold bigger debts with higher loan interest (Lusardi & Scheresberg, 2013; Lusardi & Tufano, 2015).

2.2 Financial Wellbeing

Financial wellbeing means when a person is having sufficient surplus money to spend on non-essential item during his life and financial wellbeing can be increased by overall control of money that is even more important than amount availability (Vlaev & Elliott, 2013). Financial wellbeing is when a person is having feeling of satisfaction with his financial status (Porter & Garman, 1993; Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000; Goldsmith, 2000). People's financial knowledge had only a partial direct impact while financial behaviour, attitudes and socio-economic factors were more important direct effects on their financial wellbeing (ANZ, 2018). Financial behaviour is found to be the crucial predecessor followed by financial literacy and financial stress in predicting financial well-being (Delafröoz & Paim, 2011; Rahman, 2021). A study conducted by Sehrawat and Vij (2020) to examine the financial wellbeing of Indian public and private sector employees found financial behaviour to be the strongest predictor of financial wellbeing. Higher financial literacy leads to greater financial well-being (Garman, Kim, Kratzer, Brunson, & Joo, 1999; Joo & Grable, 2004; Cude, 2010; Taft, Hosein, & Mehrizi, 2013; Grohmann, 2018; Abdullah, 2019; Nikolaos, 2020). Even a financial literate person might not exhibit predicted behaviour or increase in financial wellbeing due to other influences like behavioural or cognitive prejudices, self-control problems, family, peer. Kempson *et al.* (2017) framed a conceptual model for financial wellbeing and found that financial behaviour and socio-economic factors are the key drivers of financial wellbeing while financial attitude and psychological factors play a bigger part in determining financial behaviour than financial knowledge. A study conducted by Chatterjee, Kumar and Dayma (2019) to understand the financial wellbeing of India young adults found that perceived income security has the largest positive impact on financial wellbeing while unemployment has the largest negative consequence on financial wellbeing.

3. Research Purpose and Hypothesis

The objective of present study is to measure the financial literacy of Indian households and eventually determining the factors that would be crucial for financial wellbeing. This research study would try to answer the subsequent research queries.

RQ1: What are the utmost significant factors that will determine the financial wellbeing?

RQ2: Whether financial literacy contributes towards financial wellbeing?

Following hypothesis are outlined to answer the above-mentioned research queries.

Hypotheses 1(H1): Financial knowledge significantly influences the financial wellbeing.

Hypotheses 2(H2): Financial attitude significantly influences the financial wellbeing.

Hypotheses 3(H3): Financial behaviour significantly influences the financial wellbeing.

Hypotheses 4(H4): Socio-economic attributes significantly influences the financial wellbeing.

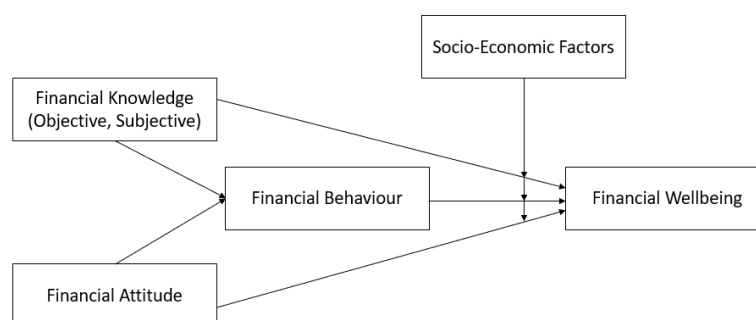


Figure 1. Proposed model for the study

4. Data and Research Methodology

4.1 Data Sampling and Procedure

For this study, data has been taken from the Financial Inclusion Insights (FII) survey, wave 5, conducted in 2017

by Intermedia, a not-for-profit global consultancy specialising in strategic research and evaluation. This survey data comprised of 47,132 individuals from India's 29 states and seven union territories proportionately to the size of the target population (aged 15+ years) in each state. For collection of this data, a three-staged stratified random sampling process has been followed: data collected in the first stage at state level, then in second stage at rural-urban level and in final stage at the household level. Households are chosen using the random walk method. In the final stage of data collection, the Krish grid method has been used to select the one eligible respondent in each household.

Table 1. Sample statistics

		Frequency	%
Total Sample	47132		100
Age	15-20	5810	12.33
	21-30	12526	26.58
	31-40	11548	24.50
	41-50	7629	16.19
	51-60	5481	11.63
	>60	4138	8.78
Gender	Male	22179	47.05
	Female	24953	52.95
Education	Illiterate	748	1.58
	No Formal Education	5617	11.91
	4 th Standard	677	1.44
	5 th Standard	39941	84.74
	6-8 th	137	0.29
	10 th	12	0.0255
Working Profile	Working Full Time	10254	21.75
	Working Part-time	10896	23.12
	Self-employed	2859	6
	Housewife	14866	31.54
	Student	3596	7.62
	Not working	1036	9.90
Urban/Rural Area	Urban	16092	34.15
	Rural	31040	65.85

4.2 Research Model

Table 1 describes the specifics of sample statistics of 47,132 households used in this study. It is seen from the sample statistics that approx. 51 % of the respondents are in the age group of 21-40 while female proportion is bigger at 53%, and 85% of respondents have studied upto 5th standard. 45% of the sample is comprised of working people category including both working full and part-time whereas 49% respondents are not working including 31% in housewife category. For this study seventeen items from the available data have been selected which are related to the financial knowledge (seven items including one item related to subjective financial knowledge), financial attitude (four items), and financial behaviour (five items) which would be used to see the impact on financial wellbeing (one item) of households. Every question has been given weightage of one score so correct/most suitable answer is arrived at either one or zero score. Total (maximum) score of measurement variables after aggregating will be sixteen, seven for financial knowledge (objective 6, subjective 1), five for financial attitude and four for financial behaviour. Financial wellbeing would be predicted from one item, "Are you satisfied with your existing financial situation?" Financial wellbeing is when a person is having feeling of satisfaction with his financial status (Porter & Garman, 1993; Hayhoe et al., 2000; Vosloo, Fouche, & Barnard, 2014; Kempson et al., 2017). Table 2 shows the details of various measurement variables.

Table 2. Description of measurement variables

Financial Knowledge (Objective), Code: FK_obj					
Item	Purpose	Question	Response	Score	Similar Research in past
1	Diversification	Do you think it would be safer to place your money into one business/investment or multiple businesses/investments?	1=One business/investment 2=Multiple businesses/investments, 99=DK	1 = 1, else = 0	NCFE (2015)
2	Inflation	Assume that prices of things double over the next ten years while in the meantime your incomes also double then would you be able to buy less/same or more than you can buy today?	1=Less 2=The same 3=More 99=DK	2 = 1, else = 0	NCFE (2015)
3	Simple interest	If you borrow Rs 1000 then which one would be lesser amount to repay: Rs 1050 or Rs 1000 plus 3 percent?	1=1,050 Rs 2=1,000 Rs plus 3 percent 99=DK	2 = 1, else = 0	
4	Simple interest versus compound interest	Assume that you invest in the bank for two years and bank will add 15 percent per annum in your investment. Do you think that the amount added by bank in your investment will be same for both years or the amount added will be more in second year compared to first year?	1=The same 2=More 99=DK	2 = 1, else = 0	NCFE (2015)
5	Additional benefit of compounding	Assume that currently you have Rs 1000 in your savings account and bank will add 10 percent per annum in that amount. If you do not withdraw any amount till five years then how much total amount in your account at the end of five years?	1=Exactly 1,500 Rs 2=More than 1,500 Rs 3=Less than 1,500 Rs 99=DK	2 = 1, else = 0	OECD (2016), NCFE (2015), Lusardi and Mitchel (2006), Gunther and Ghosh (2018)
6	Basic arithmetic calculations	Assume that you have Rs 1000 and divide it equally among five people. How much amount every person will get?	1=200 Rs 2= Any other answer 99=DK	1 = 1, else = 0	OECD (2016), NCFE (2015), Gunther and Ghosh (2018)
Financial Knowledge (Subjective), Code: FK_sub					
7	Self-assessment of financial knowledge	I have sufficient skills and knowledge so that I can well manage my finances.	1=Strongly disagree 2=Somewhat disagree 3=Neither disagree, nor agree 4=Somewhat agree 5=Strongly agree	3,4,5 = 1, else = 0	Asaad (2015), OECD (2016)
Financial Attitude, Code: FA					
8	Risk attitude	Do you invest in local and foreign shares	1 = Yes, 2 = No	1 = 1, else = 0	Gunther and Ghosh (2018)
9	Saving attitude	I have sufficient savings or assets to keep myself financially protected in the forthcoming period.	1=Strongly disagree 2=Somewhat disagree 3=Neither disagree, nor agree 4=Somewhat agree 5=Strongly agree	3,4,5 = 1, else = 0	OECD (2016), Gunther and Ghosh (2018)
10	Planning attitude	In order to meet unplanned expenses, I am keeping emergency fund.	1=Strongly disagree 2=Somewhat disagree 3=Neither disagree, nor agree 4=Somewhat agree	3,4,5 = 1, else = 0	Gunther and Ghosh (2018)

			5=Strongly agree		
11	Uncertainty attitude	Have you taken any insurance?	1 = Yes, 2 = No	1 = 1, else = 0	Kempson et al. (2017), Gunther and Ghosh (2018)
12	Futurity attitude	I am confident that my income will grow in the future	1=Strongly disagree 2=Somewhat disagree 3=Neither disagree, nor agree 4=Somewhat agree 5=Strongly agree	3,4,5 = 1, else = 0	
Financial Behaviour, Code: FB					
13	Planning income	Whenever you make a plan regarding spending of your income, how frequently do you track it?	1=Never, 2=Sometimes 3=Often, 4=Almost always	2,3,4 = 1, else = 0	Kempson et al. (2017), OECD (2016), Gunther and Ghosh (2018)
14	Spending pattern	I spend fewer money than I earn every month.	1=Strongly disagree 2=Somewhat disagree 3=Neither disagree, nor agree 4=Somewhat agree 5=Strongly agree	3,4,5 = 1, else = 0	Kempson et al. (2017), Gunther and Ghosh (2018)
15	Payment of bills	I pay my bills on time and in	1=Strongly disagree 2=Somewhat disagree 3=Neither disagree, nor agree 4=Somewhat agree 5=Strongly agree	3,4,5 = 1, else = 0	Kempson et al. (2017), OECD (2016), Gunther and Ghosh (2018)
16	Borrowing pattern	If you have ever borrowed money from outside home either for business or any other commercial purposes then how many times?	1=Never 2=1 or 2 times 3=3 to 10 times 4=More than 10 times 99=DK	1 = 1, else = 0	Kempson et al. (2017), OECD (2016), Gunther and Ghosh (2018)
Financial Wellbeing, Code: FWB					
17	Financial wellbeing	Are you satisfied with your existing financial situation?	1=Very satisfied 2=Somewhat satisfied 3=Neither satisfied nor unsatisfied 4=Somewhat unsatisfied 5=Very unsatisfied	1,2,3 = 1, else = 0	Kempson et al. (2017), Hayhoe et al. (2000), Porter & Garman (1993), Goldsmith (2000), Vosloo et al. (2014)

4.2.1 Model Goodness-of-Fit

All predictors in this model were tested for multicollinearity. Myers (1990) recommended variance inflation factor (VIF) less than 10 and Menard (1995) suggested all predictors with more than 0.10 should exhibit no sign of collinearity. In this study, results indicated Tolerance > 0.10 and VIF<10 for all independent variables so found no presence of collinearity among independent variables. The model found significantly good-fit according to Hosmer-Lemeshow test (significance: 0.243 > 0.05) while Nagelkerke R² (0.173) indicates moderate fit. 2Log likelihood and chi-square statistics with significance of less than 0.05 indicates the overall fitness of the model. Classification shows that 87.5% of the time this model would be able to accurately predict financial wellbeing of the household.

5. Results and Discussion

Logistics regression was applied to measure the financial wellbeing that is dependent on the independent variables, financial knowledge, financial attitude and financial behaviour. Here dependent variable financial wellbeing is binary so model will predict whether a household would be considered in the category of financial wellbeing. Table shows the results from the logistics regression while controlling the socio-economic factors like age, gender, education, working profile, and urban-rural status. All predictors have been evaluated against the response “0” as the reference category.

Table 3. Logistics regression for financial wellbeing

Variable	β (S.E.)	Wald	Odd Ratio	95% C.I. for Odd Ratio	
				Lower	Upper
FK_Obj	.044(.018)	5.848**(.016)	1.045	1.008	1.082
FK_sub	-.345(.065)	28.484***(.000)	.709	.624	.804
FA	.402(.029)	191.109***(.000)	1.495	1.412	1.582
FB	.165(.030)	29.519***(.000)	1.179	1.111	1.251
FA * FB	-.023(.014)	2.947(.086)	.977	.951	1.003
FK_sub * FB	.103(.033)	9.762***(.002)	1.108	1.039	1.182
FK_Obj * FB	-.021(.009)	6.081**(.014)	.979	.963	.996

Notes. *** and ** represent statistical significance at 1% and 5% level respectively.

From the logistic regression results as per Table 3, it is apparent that wald statistics for β coefficients of all the independent variables i.e., predictors are statistically significant at 1% level and 5% level (objective financial knowledge). That means financial knowledge (objective and subjective), financial attitude and financial behaviour are significant predictor of financial wellbeing. These results confirm the Hypotheses H1, H2 and H3. Interactions between financial attitude and financial behaviours is not significantly influencing financial wellbeing but on the other hand interactions between financial knowledge (both objective and subjective) would be significantly influencing the financial wellbeing. The results are also construed in terms of odd-ratios for various predictors. Odd-ratio imply the probability of occurring the event in one group to the probability of the same event occurring in reference category. Odd-ratio of 1.495 for variable financial attitude indicates that individuals who are able to exhibit better financial attitude are having 49.50% more likelihood of financial wellbeing in comparison to others. Similarly, in case of financial behaviour variable with odd-ratio of 1.179, indicates that anyone having improved financial behaviour would have 17.90% more probability of financial wellbeing. Financial knowledge (objective) is able to influence significantly the financial wellbeing of a person though at a lesser extent but on the other side, financial knowledge (subjective) with odd-ratio of 0.709 significantly influences the financial wellbeing of a person who is showing confidence of possessing high skills and knowledge to manage the finance. This is indicating that all individuals who are self-assessing their subjective financial knowledge on the higher side would be actually having 29.10% less chances of financial wellbeing which is evident from descriptive statistics showing that 67% of individuals claimed to possess high skills and knowledge to manage the finance while in actuality overall average financial knowledge score is only 2.42 out of 6 means only 40% actual financial knowledge. The above difference between actual financial knowledge and self-assessed financial knowledge is the overconfidence that increases the chances of not getting help from others in finance or might restrain to enhance financial knowledge. Subjective financial knowledge can strongly improve the financial behaviour of a person that could result in enhanced financial wellbeing.

To find whether any significant difference in financial wellbeing is there in different group of respondents according to age, gender, education, working profile, and urban-rural area, One-way ANOVA was run. Levene statistics measured the homogeneity of variances whereas robustness of equality of means was tested through

Welch statistics and Brown-Forsythe statistics. The results as shown in Table 4 indicate that there is significant difference between group of respondents according to age, gender, education, working profile, and urban-rural area.

Table 4. ANOVA for difference among Socio-economic Groups

Between Groups	Sum of Squares	df	Mean Square	F-ratio	Levene Statistic	Welch Statistic	Brown-Forsythe Statistics
Age	17.72	5	3.544	32.502***(.000)	131.702***(.000)	33.411***(.000)	32.251***(.000)
Gender	.240	1	.240	2.193(.139)	8.781***(.000)	2.197***(.000)	2.197***(.000)
Education	49.19	9	5.466	50.43***(.000)	206.034***(.000)	51.599***(.000)	53.855***(.000)
Working profile	34.741	5	6.948	63.935***(.000)	257.27***(.000)	63.235***(.000)	65.569***(.000)
Urban-rural area	14.948	1	14.948	137.027***(.000)	571.225***(.000)	149.459***(.000)	149.459***(.000)

Note. *** represents statistical significance at 1% level.

Table 5. Logistics Regression for Socio-economic factors

Variable	β	S.E.	Wald	Sign.	Exp(β)
FK_Obj	-.013	.019	.502	.478	.987
FK_sub	-.273	.065	17.622***	.000	.761
FA	.378	.029	166.507***	.000	1.459
FB	.166	.031	29.496***	.000	1.181
FA * FB	-.024	.014	2.985***	.084	.977
FK_sub * FB	.069	.033	4.361**	.037	1.072
FK_Obj * FB	-.010	.009	1.354	.245	.990
Age			47.636***	.000	
Age (1)	-.164	.069	5.745**	.017	.848
Age (2)	-.354	.070	25.464***	.000	.702
Age (3)	-.371	.073	26.090***	.000	.690
Age (4)	-.299	.076	15.403***	.000	.742
Age (5)	-.390	.076	26.284***	.000	.677
Gender (1)	.023	.036	.398	.528	1.023
Education			124.046***	.000	
Education (1)	-.298	.067	19.991***	.000	.742
Education (2)	-.059	.061	.926	.336	.943
Education (3)	.261	.056	21.699***	.000	1.298
Education (4)	.149	.044	11.198***	.001	1.160
Education (5)	.278	.049	31.955***	.000	1.320
Education (6)	.370	.060	37.383***	.000	1.447
Education (7)	.422	.177	5.678**	.017	1.525
Education (8)	.239	.215	1.232	.267	1.270
Education (9)	.446	.081	30.513***	.000	1.563
Working_Profile			129.819***	.000	
Working_Profile (1)	.336	.056	35.818***	.000	1.399
Working_Profile (2)	-.058	.052	1.267	.260	.944
Working_Profile (3)	.182	.074	6.057**	.014	1.200
Working_Profile (4)	.309	.055	32.125***	.000	1.363
Working_Profile (5)	.327	.087	14.211***	.000	1.386
Urban_Rural(1)	.143	.033	19.444***	.000	1.154

Notes. *** and ** represent statistical significance at 1% and 5% respectively.

Results from the logistics regression for socio-economic factors as per Table 5 above shows the impact of socio-economic factors on financial wellbeing. Here the omitted variables for reference categories are age (15-20), gender(female), education (illiterate), working profile (not working) and rural area. It is evident that financial wellbeing significantly varies with age, education, working profile and urban-rural area category while gender attribute does not significantly impact financial wellbeing. These results confirm hypotheses H4. Age does not strongly influence financial wellbeing though significantly. Education and working profile can play a wider role in the financial wellbeing of households as we can see from the results that illiterate and no formal education has negative impact on financial wellbeing but the prospectus can be much better with the more educated people. All individuals in the slab of highest qualification have 56.3% more chances of financial wellbeing, similarly individuals who are working full- time have 40% more likelihood of financial wellbeing compared to those who are not working either due to unemployment or disability issues. Also, urban people are able to exhibit 15% more possibility of financial wellbeing compare to rural people.

6. Conclusion

Current study reveals the fact that financial wellbeing of Indian household depends to a large extent on what is the level of financial knowledge and how much good in exhibiting financial attitude and financial behaviour. In this study objective financial knowledge that is actual level of knowledge is not much influential in financial wellbeing that confirms the earlier studies (ANZ, 2018) while subjective financial knowledge seems to be deviating from actual i.e. objective financial knowledge. Lusardi & Mitchell (2014) also found the divergence between actual financial knowledge and self-assessed knowledge i.e., subjective financial knowledge. It is also observed that both financial behaviour and financial attitude can create a big difference in the financial wellbeing

as appropriate financial attitude and financial behaviour may bring 50% and 18% more chances of financial wellbeing respectively compared to those who are not so good in displaying apt financial attitude and appropriate financial behaviour. These results are in confirmation with similar studies done in the past (Garman et al., 1999; Joo & Grable, 2004; Cude, 2010; Delafrooz, 2011; Taft et.al, 2013; Grohmann, 2018; Abdullah, 2019; Nikolaos, 2020; Rahman, 2021). As the results revealed from current study, socio-economic factors especially education and employment could be crucial for the financial wellbeing reiterates the previous study by Kempson et al. (2017).

7. Implications of the Study

This study which reveals the factors that are important for financial wellbeing of Indian households might be useful for framing the policy at micro level. As we see the importance of financial literacy, steps could be taken to enhance the learnings of financial concepts along with infusing appropriate financial attitude and behaviour which are important for financial wellbeing.

References

- Abdullah, N., Sabri, M. F., & Arif, A. M. M. (2019). The Relationship between attitude towards money, financial literacy and debt management with young worker's financial well-being. *Pertanika Journal of Social Sciences & Humanities*, 27(1), 361-387.
- Abreu, M., & Mendes, V. (2010). Financial Literacy and Portfolio Diversification. *Quantitative Finance*, 10(5), 515-528. <https://doi.org/10.1080/14697680902878105>
- Adam, A. M., Frimpong, S., & Boadu, M. O. (2017). Financial literacy and financial planning: Implication for financial well-being of retirees. *Business and Economic Horizons*, 13(2), 224-236. <https://doi.org/10.15208/beh.2017.17>
- Agarwalla, S. K., Barua, S. K., Jacob, J., & Varma, J. R. (2013). Financial literacy among working young in India. *IIMA Working Paper No. 2013-10-02*
- Agnew, J. R., Bateman, H., & Thorp, S. (2013). Financial Literacy and Retirement Planning in Australia. *Numeracy*, 6(2). <http://dx.doi.org/10.5038/1936-4660.6.2.7>
- Alhenawi, Y., & Elkhail, K. (2014). Financial literacy of U.S. households: Knowledge vs. long term financial planning. *Financial Services Review*, 22(3), 211-244.
- Allgood, S., & Walstad, W. B. (2016). The effects of perceived and actual financial literacy on financial behaviors. *Economic Inquiry*, 54(1), 675-697. <https://doi.org/10.1111/ecin.12255>
- Al-Tamimi, H. A. H., & Kalli, A. A. B. (2009). Financial literacy and investment decisions of UAE investors. *The Journal of Risk Finance*, 10(5), 500-516. <https://doi.org/10.1108/15265940911001402>.
- ANZ. (2015). ANZ Survey of Adult Financial Literacy in Australia.
- ANZ. (2018). Financial Wellbeing, A survey of Adults in Australia.
- Arifin, A. Z. (2017). The influence of financial knowledge, control and income on individual financial behavior. *European Research Studies Journal*, 20(3A), 635-648
- Arrondel, L., Debbich, M., & Savignac, F. (2012). Stockholding and Financial Literacy in the French Population. *International Journal of Social Sciences and Humanity Studies*, 4(2).
- Asaad, C. T. (2015). Financial literacy and financial behavior: Assessing knowledge and confidence. *Financial Services Review*, 24(2), 101-118.
- ASIC. (2014). Report 403 *National Financial Literacy Strategy 2014-17*.
- Atkinson, A., & Messy, F. (2012). Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study. *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 15. Paris: OECD Publishing. <https://doi.org/10.1787/5k9csfs90fr4-en>
- Bajo, E., Barbi, M., & Sandri, S. (2015). Financial literacy, households' investment behaviour, and risk propensity. *Journal of Financial Management, Markets and Institutions*, 3(1), 157-174. <https://doi.org/10.12831/80534>.
- Behrman, J. R., Mitchell, O. S., Soo, C. K., & Bravo, D. (2012). How financial literacy affects household wealth accumulation. *American Economic Review*, 102(3), 300-304. <https://doi.org/10.1257/aer.102.3.300>
- Caroline, A., Potrich, G., Vieira, K. M., & Mendes-Da-Silva, W. (2015). Development of a financial literacy

- model for university students. *Management Research Review*, 39(3), 356-376. <https://doi.org/10.1108/MRR-06-2014-0143>
- Chatterjee, D., Kumar, M., & Dayma, K. K. (2019). Income security, social comparisons and materialism: Determinants of subjective financial well-being among Indian adults. *International Journal of Bank Marketing*. <https://doi.org/10.1108/IJBM-04-2018-0096>
- Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 7(2), 107-128.
- Cude, B. J. (2010). Financial Literacy. *The Journal of Consumer Affairs*, 44(2). <https://doi.org/10.1111/j.1745-6606.2010.01168.x>
- Delafronz, N., & Paim L.H. (2011) Determinants of financial wellness among Malaysia workers. *African Journal of Business Management*, 5(24), 10092–10100. <https://doi.org/10.5897/AJBM10.1267>
- Delavande, A., Rohwedder, S., & Willis, R. (2008). Preparation for Retirement, Financial Literacy and Cognitive Resources. *University of Michigan Retirement Research Center Working Paper*, 2008-190.
- Fornero, E., & Monticone, C. (2011). Financial Literacy and Pension Plan Participation in Italy. *Journal of Pension Economics and Finance*, 10(4), 547-564. <https://doi.org/10.1017/S1474747211000473>
- Garman, E. T., Kim, J., Kratzer, C. Y., Brunson, B. H., & Joo, S. H. (1999). Workplace financial education improves personal financial wellness. *Financial Counseling and Planning*, 10(1), 79-88.
- Goldsmith, E. B. (2000). Resource management for individual and family. Belmont, CA: Wadsworth learning.
- Grohmann, A. (2018). Financial literacy and financial behavior: Evidence from the emerging Asian middle class. *Pacific-Basin Finance Journal*, 48, 129-143. <https://doi.org/10.1016/j.pacfin.2018.01.007>
- Gunther, M. K., & Ghosh, S. (2018). Deciphering financial literacy in India: Evidence from states. *Economic and Political Weekly*, 53(3), 153-164.
- Hayhoe, C., Leach, I., Turner, P., Bruin, M., & Lawrence, F. (2000). Difference in spending Habits and credit card use of college students. *Journal of Consumer Affairs*, 34, 113-133.
- Henager, R., & Cude, B.J. (2016). Financial literacy and long- and short- term financial behavior in different age groups. *Journal of Financial Counselling and Planning*, 27(1), 3-19. <https://doi.org/10.1007/s10834-019-09626-2>
- Hsu, J. W. (2011). Aging and Strategic Learning: The Impact of Spousal Incentives on Financial Literacy. <http://dx.doi.org/10.1111/j.1745-6606.2000.tb00087.x>
- Jacobs-Lawson, J. M., & Hershey, D. A. (2005). Influence of future time perspective, financial knowledge, and financial risk tolerance on retirement saving behaviors. *Financial Services Review*, 14, 331-344.
- Jappelli, T., & Padula, M. (2013). Investment in Financial Literacy and Saving Decisions. *Journal of Banking and Finance*, 37(8), 2779-2792. <https://doi.org/10.1016/j.jbankfin.2013.03.019>
- Joo, S., & Grable, J.E. (2004). An Exploratory Framework of the Determinants of Financial Satisfaction. *Journal of Family and Economic Issues*, 25. <https://doi.org/10.1023/B:JEEI.0000016722.37994.9f>
- Kempson, E., Finney, A., & Poppe, C. (2017). Financial wellbeing: A conceptual model and preliminary analysis. Final edition. Consumption Research Norway SIFO. SIFO Project Note no. 3. Consumption Research Norway SIFO. Oslo, Norway.
- Klapper, L., Lusardi, A., & Oudheusden, V. P. (2015). *Financial literacy around the world. Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey*. New York, US: Standard & Poor's.
- Klimoski, R., & Palmer, S. (1993). The ADA and the hiring process in organizations. *Consulting Psychology Journal: Practice and Research*, 45(2), 10-36. <https://doi.org/10.1037/1061-4087.45.2.10>
- Larson, L. R., Eastman, J. K., & Bock, D. E. (2016). A multi-method exploration of the relationship between knowledge and risk: The impact on Millennials' retirement investment decisions. *Journal of Marketing Theory and Practice*, 24(1), 72-90. <https://doi.org/10.1080/10696679.2016.1089765>
- Loke, Y. J. (2015). Financial Knowledge and Behaviour of Working Adults in Malaysia. *The Journal of Applied Economic Research*, 9(1), 18-38. <https://doi.org/10.1177/0973801014557392>
- Lusardi, A., & Mitchell, O. S. (2014). The Economic Importance of Financial Literacy: Theory and Evidence. *Journal of Economic Literature*, American Economic Association, 52(1), 5-44.

<https://doi.org/10.1257/jel.52.1.5>

- Lusardi, A., & Scheresberg, C.B. (2013). Financial Literacy and High-Cost Borrowing in the United States. NBER Working Paper 18969.
- Lusardi, A., & Tufano, P. (2015). Debt Literacy, Financial Experiences, and Over Indebtedness. *Journal of Pension Economics and Finance*, 14(4), 332-328.
- Mahdzan, N. S., Mohd-Any, A. A., & Chan, M. (2017). The Influence of Financial Literacy, Risk Aversion and Expectations on Retirement Planning and Portfolio Allocation in Malaysia. *Gadjah Mada International Journal of Business*, 19(3), 267-288. <https://doi.org/10.22146/gamaijb.24441>
- Mishra, R. (2018). Financial Literacy, Risk Tolerance and Stock Market Participation. *Asian Economic and Financial Review*, 8(12), 1457-1471. <https://doi.org/10.18488/journal.aefr.2018.812.1457.1471>
- Mouna, A., & Anis, J. (2017). Financial Literacy in Tunisia: Its determinants and its implications on investment behaviour. *Research in International Business and Finance*, 39(Part A), 568-577. <https://doi.org/10.1016/j.ribaf.2016.09.018>
- NCFE. (2015). Financial Literacy and Inclusion in India Final Report – India.
- Nikolaos, D. P., & Avdoulas, C. (2020). Financial literacy and financial well-being among generation-Z university students: Evidence from Greece. *The European Journal of Finance*, 26(4-5), 360-381. <https://doi.org/10.1080/1351847X.2019.1701512>
- OECD. (2017). G20/OECD INFE report on adult financial literacy in G20 countries.
- OECD. (2016). *OECD/INFE international survey of adult financial literacy competencies*. Paris: OECD.
- Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial wellbeing. *Financial Counseling and Planning*, 4, 135-164.
- Rahman, M., Isa, C.R., Masud, M.M. (2021). The role of financial behaviour, financial literacy, and financial stress in explaining the financial well-being of B40 group in Malaysia. *Future Business Journal*, 7. <https://doi.org/10.1186/s43093-021-00099-0>
- Robb, C.A., & Woodyard, A.S. (2011). Financial knowledge and best practice behavior. *Journal of Financial Counseling and Planning*, 22(1), 60-70.
- Rooij, V. M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449-472. <https://doi.org/10.1016/j.jfineco.2011.03.006>
- Sabri, N. A. A. (2016). The relationship between the level of financial literacy and investment decision-making millennials in Malaysia. *Taylor's Business Review*, 6, 39-47.
- Scheresberg, C. B. (2013). Financial literacy and financial behavior among young adults: Evidence and implications. *Numeracy*, 6(2). <http://dx.doi.org/10.5038/1936-4660.6.2.5>
- Sehrawat, K., & Vij, M. (2020). Financial Wellbeing Among Public and Private Sector Employees: A Preliminary Study. *Indian Journal of Finance*, 14(1), 9-28. <https://doi.org/10.17010/ijf/2020/v14i1/149855>
- Sekita, S. (2011). Financial Literacy and Retirement Planning in Japan. *Journal of Pension Economics and Finance*, 10(4), 637-656. <https://doi.org/10.1017/S1474747211000527>
- Sivaramakrishnan, S., Srivastava, M., & Rastogi, A. (2017). Attitudinal factors, financial literacy, and stock market participation. *International Journal of Bank Marketing*, 35(5), 818-841. <https://doi.org/10.1108/EL-01-2014-0022>
- Taft, M. K., Hosein, Z. Z., & Mehrizi, S. M. T. (2013). The Relation between Financial Literacy, Financial Wellbeing and Financial Concerns. *International Journal of Business and Management*, 8(11). <https://doi.org/10.5539/ijbm.v8n11p63>
- Vlaev, I., & Elliott, A. (2014). Financial Well-Being Components. *Social Indicators Research*, 118, 1103-1123. <https://doi.org/10.1007/s11205-013-0462-0>
- Vosloo, W., Fouche, J., & Barnard, J. (2014). The Relationship Between Financial Efficacy, Satisfaction with Remuneration and Personal Financial Well-Being. *International Business & Economics Research Journal*, 13(6), 1455–1470. <https://doi.org/10.19030/iber.v13i6.8934>

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