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What Determines Financial Knowledgeamong Urban Indians?

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Abstract--*Financial literacy has been researched at depth in the past literature with a lot of emphasis on the successful outcomes reflected in positive savings, consumption and investment behavior. For a considerable time in the past, financial knowledge had proxied financial literacy and the dimension has received constant spotlight on issues like how, when and what type of financial knowledge individuals attain in a given socio-economic and demographic landscape. The present study is an attempt to closely understand the determinants of financial knowledge among the educated urban Indians working in the organized private sector, who are exposed to a multitude of complexities in terms of choice in the dynamic financial environment. As opposed to the majority of the literature, gender differences were not observed in our study. But, financial knowledge was higher among young, higher-income individuals, those with subject specialization in economics, finance or commerce and whose mother had a post-graduate degree. The study bridges the gap in the scarce literature in India and the findings have important implications for policymakers, financial education trainers, institutions rendering a closer look into financial literacy amidst the socio-cultural context.*

Keywords: *Financial literacy, Financial knowledge index, Urban India*

I. INTRODUCTION

The matter of financial literacy has drawn attention from organizations to government machinery, working in the financial landscape towards uplifting the marginalized to creating a conducive financial environment for the sophisticated investors, as financial literacy has shown to produce outcomes in the areas of financial inclusion, client protection by having cover from unscrupulous practices (UNDP, 2012), optimization of savings and investments (Atkinson and Messy, 2012), reducing the costs on borrowings (Gine et al., 2017), fee (Choi et al., 2010), participation in formal financial markets (Lusardi and Mitchell, 2011), lower accumulation of wealth (Behrman et al., 2012), etc.The topic had been attracting eyeballs especially in developed nations earlier but now as the developing nations rise up the economic ladder and host rapidly urbanizing regions characterized by populations with more disposable income. So, decision making becomes crucial in terms of choice of financial products like insurance, deposits, savings fund, pension plans, taxation, etc.

Financial knowledge has been testedas the starting point for any behavioral change (Fessler et al., 2019). Financial knowledge in theliterature has predominantly included numeracy (Cokely et al., 2012), knowledge of financial concepts and has been measured through test-based approach (Collins and O'Rourke 2010;; Fernandes et al., 2014; Bowen 2002; Courchane and Zorn 2005; Knoll and Houts 2012; Lynch, and Netemeyer 2014).

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Literature has attempted to focus on proximate variables like age, gender, level of education, ethnicity (Al-Bahrani et al., 2018), marital status (Van Campenhout, 2015), dependents (Calamato 2010), income, etc. to identify and target the potential sub-groups and accordingly formulate policy interventions to alleviate poor financial literacy (Lusardi et al., 2010; Hastings et al., 2013).

Subsequently and importantly enough the role of environmental factors has also been explored. For e.g. region-wise analysis (Lachance, 2014; Bongini et al., 2014), exposure to the financial crisis (Bumcrot et al., 2013), degree of inequality in the system (Guiso et al., 2007), type of social security (Jappelli et al., 2010), etc. Similarly, such a regional analysis of financial literacy was conducted by (Cucinelly et al., 2019) among Italian administrators using multi-level regression and in addition to the demographic factors, the pivotal role of variables like labor market conditions, formation of human capital and the degree of poverty that impacted individual financial literacy was underlined. Thus, differences in regional distribution of financial literacy hint at differences in social, economic (per capita income) and educational variables. So, the local contexts become very relevant to the distribution of financial literacy.

Therefore, keeping the above into consideration, we study the level of financial knowledge among urban organized private-sector employees in the Delhi-NCR region in India which is an urban conglomerate with high economic activity. The target population represents a very important section of the economy as they contribute immensely to the growth story of the nation without having a social security system in place to cover any contingencies. They include the educated class with disposable income at hand and the potential to have a larger share in the financial markets.

The study makes a critical contribution to the literature in two ways: a) It identifies the level of financial knowledge among theeducated organized private-sector employees who have been addressed in few studies (Agarwal et al., 2009). b) It finds significant factors affecting their financial knowledge in the socio-cultural landscape typical to an urban Indian demographical setting. c) It suggests the relevant policy measures specific to our sample characteristics.

The paper subsequently is organized: firstly section 2reviews the theoretical and empirical framework employed by previous studies along with the indicators of financial knowledge and the added variables or items by the researchers. Next, section 3 elaborates on the methodology and measures undertakenin our study. Then, section 4 brings out the findings and discusses the way forward to improve the financial knowledge among individuals.

2. Review of Literature

Previous literature has found a lower degree of financial literacy than as expected across the world despite a higher attainment of education and wealth. One of the basic challenges was to define financial literacy and to fix suitable indicators for the measurement of the same. Though, there is no one universal operationalization of financial literacy as it assumes shapes and directions in the specialized setting targeting sub-groups and diverse contexts. It broadly includes knowledge involving financial concepts and the capability to use it effectively to make optimal financial decisions.

One of the pioneer studies in this regard refers to the (Lusardi and Mitchell, 2005) who devised three questions for measuring financial literacy in the Health and Retirement survey 2004. They considered areas like knowledge of inflation, interest rate functioning and portfolio diversification to minimize risk. Later in studies in

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the OECD INFE 2011 formalized it further to include dimensions of financial attitude and financial behavioras the demographic sub-groups were specialized further. Further, more areas were added like mathematical abilities, risk appetite, financial preparedness, etc. Since it was imperative to have specific measurement parameters for niche sub-groups that can be quantified so that targeted policy implications and formulations for the sub-population. The set standard has been the test-based approach where the correct answer on the question was scored positive and the wrong one was marked zero or negative. Right from t-tests, ANOVA, etc. to understand sub-groups differences. (Van Rooij et al., 2011b) employs factor analysis on three questions. The index of financial literacy has been previously made by OECD, World Bank, (Lusardi and Mitchell, 2011, Balloch et al., 2014), etc. (Knoll and Houts, 2012) developed a 20 item scale of financial knowledge using IRT psychometric analysis that was further updated (Knoll and Houts, 2019). Similar attempts were made for (Fernandes et al., 2014) for deriving a reliable measure of financial knowledge.

II. Research Methodology

The survey-based evidence is common in financial literacy literature (Stromback et al., 2017; Ghazal et al., 2014). Similar to the 2011 OECD INFE conducted surveys across the countries to make relevant inter-country comparisons, the present study employs survey methods for data collection.

3.1. Data

The participants of the survey were employees from the organized private sector in the Delhi-NCR Region. The participants were chosen based on a stratified random sampling method. The initial stratification was based on the zones with high economic activity in the state of Delhi, Haryana and Uttar Pradesh by municipality size. Then further, the organized institutions in the service sector were identified and were chosen randomly for the study. The questionnaire was floated between July to October 2019 to recruit the participants and a total of 540 responses were sought with a response rate of 86% with the average time 9 minutes being taken by the respondent. Table 1 presents the composition of the sample. Among the people surveyed, 43.1% were female. A majority of respondents (80.1%) were less than 40 years old with a mean age of approximately 32 years. The respondents had an above-average educational background: 52.8% were university graduates, and 45.5% had a post-graduate degree. The marital status most represented was married (53.7%), followed by single individuals (44.7%), and widowed/divorced (1.6%). The median income was Rs. 9.36 lakhs (annual) with mean income = Rs. 7.74 lakhs (annual). A significant majority had a degree in financial specialized courses (57%) and had an urban upbringing (75.9%).

3.2. Measures

Financial Knowledge

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To quantify the financial knowledge, various areas were identified and endogenized like inflation, the principle of compounding, numeracy, etc. Item response is also skewed in this dimension since individuals tend to report more 'don't know' responses. Thus, the option of don't know responses were excluded from the instrument. Objective financial knowledge (or financial literacy) was measured with a 12-item multiple-choice scale with items fromOECD 2018 and NCFE 2016. The detailed wording of the questions is included in Appendix A. Most studies use the methodology of averaging the scores on the questions with a correct question being scored 1 and 0 otherwise (Hung et al., 2009). To understand how well the individuals have understood various items, a financial knowledge index was created as follows:

$$\boldsymbol{FKI_i = \frac{1}{N}\sum_{i=1}^{N} a_{i,j} \;\; ; i = 1, \ldots\ldots\ldots\ldots, 540; j = 1, \ldots\ldots\ldots\ldots, 12} \quad \textbf{(1)}$$

Where N stands for the total number of financial literacy questions and r_i stands for the score assigned. The financial literacy index was calculated based on the arithmetic mean of the responses. The higher values indicate a higher level of objective financial knowledge. This scale had an acceptable internal consistency asthe internal reliability of the items was checked through the KR-20 reliability test statistic (>0.7).

Table 1: Sample Characteristics

Characteristic	Frequency (%)	Mean/ Median	Range
Age (in years) a) 18-29 b) 30-39 c) 40-49 d)>= 50	 53.1 27.6 13.6 5.7	 32.19	 21-62
Gender Male Female	 56.9 43.1		
Marital Status a) Single/Never Married b) Married c) Divorced/Separated/Widowed	 44.7 53.7 1.6		
Income (in lakhs) a) <3 b) 3-5 c) 5- 10 d) 10- 15 e) 15- 20 f) > 20	 8.2 42 19.8 11.9 11.1 7	 7.74	
Level of Education a) Illiterate b) Up to higher secondary (12^{th}) c) Graduate d) Post Graduate e) Doctorate and above	**Respondent's** - - 52.8 45.5 1.6	**Father's** 2.2 27.9 54.2 13 2.7	**Mother's** 5.7 37.4 48.2 8.4 .3
Type of Employment a) Permanent b) Part-time b) Contractual	 82.1 5.4 12.5		
Subject in Eco/Fin/Commerce a) Yes b) No	 43 57		
Upbringing background Rural Urban	 24.1 75.9		

Control variables **-** The demographic information like age, gender, level of education, type of employment, upbringing status (rural or urban) to economic grouping like income was sought. Some of the important variables

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that were included were if the respondent had ever read a subject in economics, finance, etc (Van Rooij et al., 2011). To gauge parental socialization, an individual was asked if he had discussed financial matters with parents as a teen. The response was sought on a 5 point Likert Scale.

Appendix A

Table 2: Financial Knowledge Questions

Questions	Answer options
1. Assume a friend inherits Rs. 10000 today and his sibling inherits Rs. 10000, 3 years from now. Who is richer because of the inheritance?	**a) My friend*** b) His sibling c) They are equally rich
2. Suppose that in the year 2019, your income has doubled and the prices of all goods have doubled too. In 2019, how much will you be able to buy with your income?	a) More than today **b) The same** c) Less than today
3. Imagine that the interest rate on your savings account was 4% per year and inflation was 6% per year. After 1 year, how much would you be able to buy with the money in this account?	a) More than today b) Exactly the same **c) Less than today**
4. Suppose you had Rs. 100 in a savings account and the interest rate was 4% per year. After 5 years, how much do you think you would have in the account if you left the money to grow with simple interest?	**Ans. 120**
5. If you invest Rs. 1,000 today at 8% for a year, your balance in a year will be: -	**a) Higher if the interest is compounded daily.** b) Higher if the interest is compounded quarterly. c) Higher if the interest is compounded yearly. d) Rs. 1,080 no matter how the interest is computed.
6. If interest rates rise what happens to the bond prices?	a) Increase b) Stays the same **c) Decrease** d) There is no relationship between the two
7. When an investor spreads his money among different assets, does the risk of losing money:	a) Increase **b) Decrease** c) Stays the same
8. Which statement about mutual funds is correct?	a) Once one invests in a mutual fund, one cannot withdraw the money in the first year **b) Mutual funds can invest in several assets, for example, invest in both stocks and bonds** c) Mutual funds pay a guaranteed rate of return which depends on their past performance

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9. Which of the statement is false when somebody buys the stock of firm B in the stock market?	a) He owns a part of firm B b) He has voting power on major issues **c) He is personally liable for firm B debt** d) None of the above
10. Which of the following is false about the systematic investment plan?	a) It works on the principle of regular investments b) It is an investment strategy wherein an investor needs to invest the same amount of money in a particular mutual fund at every stipulated time period. c) It enables an investor to buy more units when the price falls and fewer units when the price rises. **d) It is riskier than a one-time investment in the equity market.**
11. Auto insurance companies do not determine your premium based on:	a) Age of insured b) Record of accidents c) Type and age of the vehicle **d) Completion of a driver education course**
12. Term Insurance Means: -	a) Policy wherein the insured gets death benefit if any contingency happens within the policy term. b) The insured is, however, not entitled to receive any survival benefit if he outlives the policy term. c) These plans are relatively cheaper than endowment policies, money-back policies, and ULIPs. **d) All of the above** e) None of the above

Table 3 shows the percentage analysis on the financial knowledge items. Interestingly, none of the respondents got all the questions right. Only 12.73% of individuals answered exactly half the questions right, whereas just half i.e. 51.8% got a score 6 or less on a scale of 12.Individuals did better on money illusion matter which is the inability to rightly decipher the impact of inflation on purchasing power. Generally as observed by the authors, this aspect was tapped using a hypothetical statement given to the participant. In reality, there might be uncertainty in the understanding of the functioning of inflationary mechanism which demands specialized knowledge but it is observed that the time value of money could be decoded by the majority of individuals (66.7%). Our sample scores fairly well on major parameters of numeracy (59.9%) and stock ownership (73.7%). While it performed below average in compounding principle (42.3%), interest bond relation (36.6%), instruments like insurance and the concept of Systematic Investment Plans (37.4%).

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Table 3:.Percentage responses on financial knowledge questions

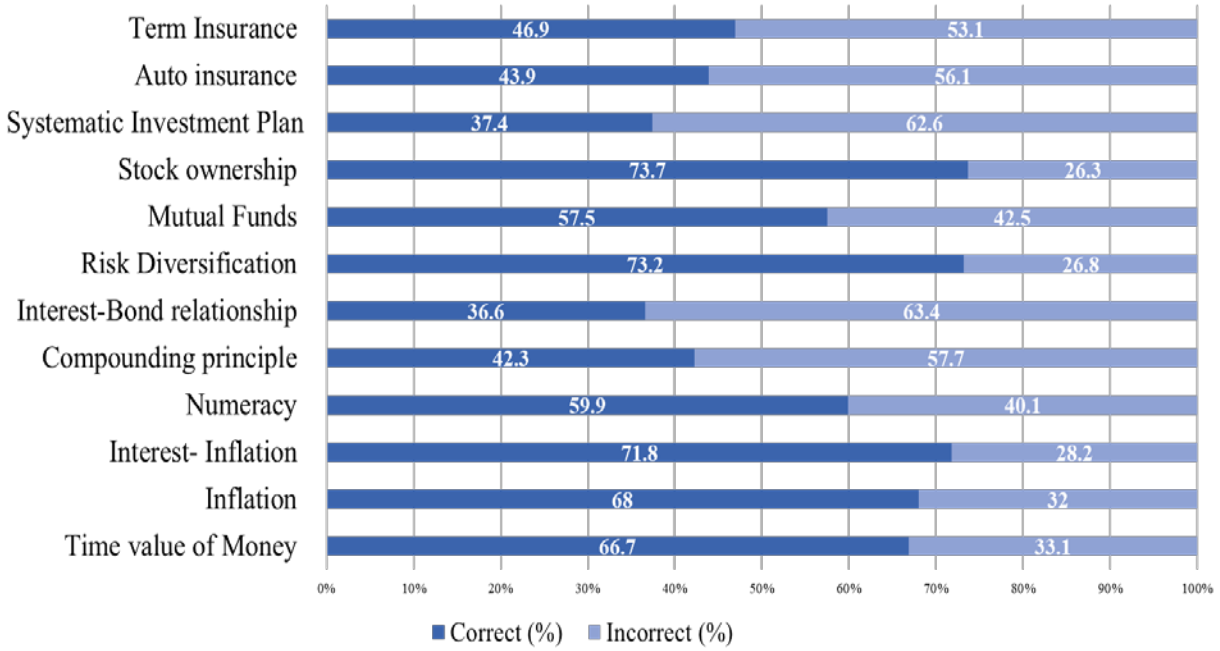

Figure 1. Shows the distribution of the sample on the financial knowledge score and the dotted line indicates the average score of the distribution. The average score on the Financial Knowledge Index is 0.526 with a standard deviation of 0.204. The distribution on the Index is skewed slightly to the left (median is equal to 0.5); that is, more than 50% of our sample scored a percentage of correct answers higher than the average score. Also, in a comparative context, our sample has performed well on the financial knowledge dimension as compared to other studies internationally.

Figure 1: Kernel Density estimates for the Financial Knowledge Index

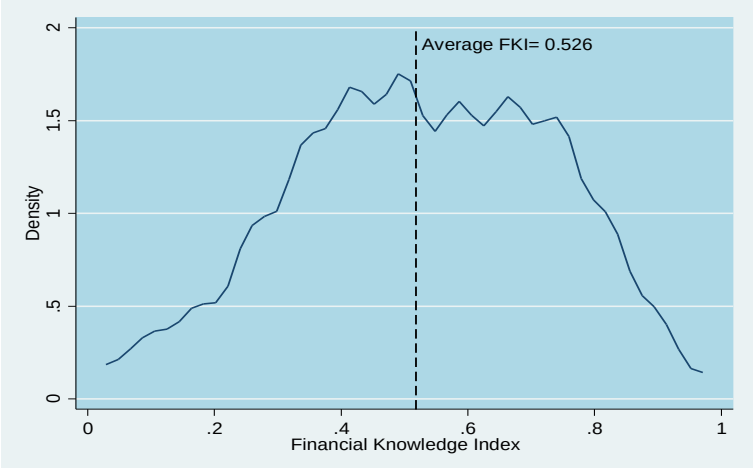

Table 4reports the results of t-tests and ANOVA that was used to show the significant difference in financial knowledge among the sample taken area wise as well as in totality. The bold numbers reflect statistical

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significance (p<.05). For the overall financial literacy scores, F-statistic and post hoc analysis using Tukey reveals that financial knowledge is higher among the young as compared to the old, single (unmarried) individuals, those who read a subject in economics, finance, etc., with higher parental education and with an urban upbringing. Interestingly, factors like gender, income, and level of education did not have significant differences in financial knowledge.

Area wise differences throw more light. For e.g. having a subject specialization makes a difference (higher score) in all the areas except numeracy that could be a by-product of aptitude and mathematical skills whereas the level of education poses a positive influence on numeracy and know-how of financial instruments like mutual full

4. Data Analysis and Findings

Table 4. Summary of response patterns on areas of financial knowledge by respondents' socio-economic characteristics and results of t-test and ANOVA.

Attribute	Interest-Inflation (TVM) (FK1,2,3)	Numeracy and Compounding (FK4,5)	Bond and risk div (FK6,7)	Financial Instruments (FK8,9,10)	Insurance (FK11,12)	Overall sc
Age						
F-Statistic	**-3.170**	1.253	**-3.180**	**-2.840**	1.688	**-3.85**
p-value	**.024**	.290	**.024**	**.038**	.169	**.010**
Marital Status						
t- Statistic	**3.615**	.638	**2.158**	.480	1.140	**2.623**
p-value	**.000**	.524	**.032**	.412	.255	**.009**
Education Level						
F-Statistic	1.514	**.246**	.033	**4.153**	.062	.410
p- value	.222	**.033**	.967	**.016**	.940	.664
Subject						
t-Statistic	**-2.783**	1.110	**-4.082**	**-2.360**	**-2.626**	**-3.52**
p-value	**.006**	.268	**.000**	**.017**	**.009**	**.001**
Income						
F-statistic	**2.711**	1.562	.809	1.233	**2.248**	2.130
p-value	**.020**	.170	.544	.293	**.049**	.061
Mother's education						
F-Statistic	1.029	2.069	**6.188**	**2.936**	**2.446**	**6.204**
p- value	.392	.084	**.000**	**.021**	**.046**	**.000**
Father's education						
F-Statistic	1.708	.573	**3.579**	2.368	1.648	**3.003**
p- value	.148	.683	**.007**	.052	.162	**.018**
Upbringing						
t-Statistic	-.665	**-.483**	-1.943	**-2.704**	.960	**-2.03**
p-value	.507	**.015**	.053	**.007**	.766	**.043**

*Bold values signifies significant outcomes (p<.05)

Determinants of financial Knowledge: Regression Analysis

Regression Analysis is an important technique that minimizes sum square errors, to find the significant factors assuming a benchmark statistical significance. Before proceeding with the Ordinary Least Square (OLS) regression analysis, the pre-requisite assumptions were tested. For example, normality of distribution was checked using the Shapiro Wilk test and Q-Q plots for normality. Though in cross-sectional studies, heteroscedastic error terms are a common observation, in our study the absence of heteroscedasticity was

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confirmed usingBreusch Pagan Test. While multicollinearity was not present as indicated by the values of VIF (>10) and tolerance (>0.1).The dependent variable is continuous [0,1] while the independent variables like age and income were continuous but the variables like mother's, father's education, having a subject in economics, etc. were dummy coded.

The regression equation (including only significant estimates) ($F(8, 518) = 7.641$, $p<.001$) with an $R^2_{adj} = 0.340$ was obtained as follows: -

$$\mathbf{FKI_i = .496 - 0.172\ Age_i + 0.204\ Income_i + 0.\ Z_i + 0.125\ K_i + 0.076\ L_i + \epsilon_i} \quad (2)$$

Where FKI is the Financial Knowledge Index

Z_i = 1, if the respondent has read a subject in economics,

= 0, otherwise.

K_i = 1, if the respondent's mother has a post-graduate degree,

= 0, otherwise.

L_i = 1, if the respondent had discussed financial matters with parents,

= 0, otherwise.

ϵ_i = Error term

Table 5 shows the empirical findings. In our study, we find that financial knowledge is higher as age decreases. Income exerts a positive influence on financial knowledge. Using dummy variables, financial knowledge is high among those who have read a subject in economics, finance or commerce. While those with maternal education higher than graduation performed better on the test. The findings bridge the gap in the literature and throw light on the contextual variables among the Indian diaspora.

Table 5. Results of Regression Analysis on Financial Knowledge Index

Model	B (Unstandardized)	Beta (Standardized)
Age	-.048**	-.172
	(.019)	
Gender		
Female	-.394	-.079
	(.271)	
Income	.090***	.204
	(.025)	
Subject		
Yes	.916***	.183
	(.264)	
Marital Status		
Married	-.326	-.070
	(.333)	
Upbringing Status		
Urban	.044	.008
	(.313)	
Parent Socialization	.376**	.076
Yes	(.255)	
Mother's education		
(Reference: illiterate)		
Higher Secondary	.174	.051
	(.168)	
Graduation	.161	.043
	(.182)	
Post Graduation and	.276**	.125
above	(.172)	
Adj. R^2	0.340	

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Note: This table presents the OLS estimates where the dependent variable is the Financial Knowledge index. *p<0.10, **p<0.05, ***p<0.01. Standard errors are robust and are reported in parentheses

III. DISCUSSION AND CONCLUSIONS

The present study makes a relevant contribution to the matter of financial literacy especially with reference to India. In order to derive more advanced proxies for financial knowledge measurement, it is imperative to check the significant factors affecting the same using the already existing measures researched globally. In India, very few studies have comprehensively addressed financial literacy (Kiliyanni et al.2018 ; Agarwal, 2009, 2015; Gunther and Ghosh, 2018) and there are fewer especially in the urban sector. Therefore, this study is a source of information in more ways than one.

The findings lead us to deliberate in many ways and with much larger perspectives. Most importantly, no significant role of gender in financial knowledge was found in our study, an observation made by recent studies like (Murillo et al., 2019)amongColumbianuniversity students. Since the majority of past studies have found lower levels of financial literacy among women as compared to men (Fonseca et al., 2010; Lusardi and Mitchell, 2014; Fessler et al., 2019) especially in developed countries (Cupak et al., 2018), our result hint at the ongoing transformation in the labor market and the professional workspace with regards to female participation. Given a similar educational background, men and women both attain similar baseline financial knowledge controlled for the spillover effects from active financial behavior. Thus, with similar financial knowledge, do the financial attitude and behavior differences and to what extent and what are the factors for the same. Such questions base the future course of action to be taken up by the researchers among the sample.

Another important consideration is the age factor. (Lusardi et al., 2010) reveals that the young have the lowest degree of financial knowledge. Similar observations were sought by (Xiao et al., 2015). The reason that was given was that as individuals progress towards successive life stages they are exposed to greater and more complex financial decision making. Interestingly, self-assessed knowledge has been observed to be higher among the old. But our results do not adhere to these findings. Rather age is negatively related to financial knowledge where the young are better off as compared to the older ones particularly in the areas of inflation, risk diversification, and financial concepts. The findings find corroboration with the advent of digital financial services and mobile technologies coupled with the economic availability of high-speed internet and data services which could be one of the probable reasons for the speedy and widespread uptake of services by the young in their 20s and 30s. This segment of the population has access and information to engage in positive financial behavior. But whether the role of experience with financial products and learning by doing takes away this advantage at a later stage is a matter of great deliberation from the millennial perspective.

Parental characteristics (Shim, et al., 2010) in the light of social learning theory has brought out thatbehavior aimed at financial well-being originates far earlier from adulthood i.e. through the phase of socialization during childhood (Ammerman and Stueve, 2019). Childhood hosts the conditions for the development of cognitive abilityaffected by environmental factors including parental influences (Santos et al., 2016) along with social relationships and networking (Lachance, 2014). Indian culture has emphasized a joint family system and

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financial habits are inculcated among children very early. Communications about finances, planning for future, etc (risk aversion) had always been an important aspect of the family values and ethos. Discussions with parents on financial matters have shown significant improvements in the financial knowledge of respondents in our study as well.

Interestingly, the level of mother's education has shown to influence the financial knowledge of the respondents. Individuals whose mother had a post-graduate degree and above showed better performance. A vast literature has proved the positive spillover effect of mother's education on children's growth and development in terms of health (Maiga, 2010), education, school dropouts (Singh et al., 2018), etc. This result further fortifies that mother's education not only positively increases the odds of high literacy among children but financial knowledge is also shown to be higher. The result reiterates the importance of women's education and its long term effects which further strengthens the case for programs like BetiBachaoBetiPadhao already in place by the Indian government. Thus, a mother's education is more likely to provide children the necessary life skill such as financial knowledge to navigate through complex financial decisions in the future.

Instead of educational proxies, acquired skill and knowledge through specialization in the subject of commerce, economics or finance turns out to be a far superior and significant measure in our study. This has a far echoing implication in terms of the financial knowledge domain. After all, finance is a specialized area but the application and services touch the daily lives of all the individuals irrespective of their discipline of study. Thus, this finding reiterates the role of financial education inciting exposure to financial concepts at a very nascent stage of individual life in the form of an introductory financial course aimed at laying the foundation of receptivity for future interventions in the area. In India, the prerogative at spreading financial education has been tasked with National Centre for Financial Education (NCFE) under the aegis of RBI, financial market regulator i.e. Securities and Exchange Board of India (SEBI), Insurance Regulatory and Development Authority of India (IRDAI) and Pension Fund Regulatory and Development Authority (PFRDA) which creates financial awareness and empowerment through financial education campaigns through workshops, seminars, conclaves, trainings, discussion forums. It also circulates material in the form of booklets, worksheets, and digital modules to improve the financial understanding among the target groups like students, professionals, etc. The school-level financial course irrespective of the stream of study should be incorporated into the existing curriculum as a life skill that would complement the above-mentioned activities. Thereby, financial education becoming a continuous process starting early when the attitudes are shaped rather than a one-time intervention at a later stage of one's life.

The financial education needs to be embraced with the diverse setting, subject and the recipient baseline knowledge (Braunstein and Carolyn, 2002). It has been found by (Rothwell and Wu, 2019) that Canadians who had taken up a financial education course performed better on all three dimensions as compared to those who did not. Such results were corroborated by (Walstad et al., 2010) as well. Financial education programs have also been considered as a low-cost intervention with the capacity to improve household financial decision making and ultimately increase savings and enhance overall welfare.(Lusardi et al., 2017) reiterated that the acquisition of financial knowledge can be seen as a form of human development without incurring the additional cost of financial learning.

The future scope of this study which can be taken up by other researchers could include adding more dimensions to the questions in the future as the level of financial knowledge has been observed to be relatively

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good in our study. Additionally, as it is embedded in socio-cultural contexts, testing it in a cross-cultural sense is certainly is needed which could be backed by experimental evidence (Drexler et al. 2014; Carpena et al. 2015; Bruhn et al. 2016). For e.g., (Murillo et al., 2019) through an experiment showed that though demographic factors are most talked about as determinants of financial literacy but the acquisition of the same through other variables such as risk aversion, time preferences, cognitive and behavioral biases, personality traits, cognitive (Delavande et al., 2008) and non-cognitive abilities needs to be looked into. They also find that after holding the confounding variables constant, individuals with higher cognitive skills are financially literate as the cost of acquisition of financial literacy is lower for such individuals and the pace of learning is faster. Thus, further, as the psychological derivates of behavioral finance are studied with a multidisciplinary approach, this aspect can be researched further.

Our results may be useful for policymakers and practitioners who are interested in designing financial literacy programs. In fact, our results underline that the level of individual financial knowledge depends on both demographicsas well as environmental characteristics. These results suggest that to improve individual financial literacy, it is not sufficient to intervene only on the individual level. However, improving the context in which he/she lives could also be helpful. Knowledge has spillover effects where (Potrich et al., 2016) developed and compared three models and concluded that mutually correlated financial knowledge and financial attitude predict financial behavior.Integrating theinsights from our study into national strategies that promote financial literacy will not only lead to more effective but also to more efficient policy initiatives by focusing on the particular weaknesses of certain subgroups and using the appropriate transmission channels.

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