

# Determinants of Financial Literacy & Knowledge, Socioeconomic, Attitudinal and Geographical Factors: Evidence from India.

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Abstract - Financial Literacy is defined as the ability to understand and properly implement financial management skills. It is the ability to use financial knowledge to optimise one's position financially and reach monetary goals. Financial literacy & knowledge has almost always been of prime discussion for a country like India where about 76% adults were deemed financially illiterate by a survey conducted by S&P in 2014 since then, in the last 6 years the Indian Financial Services Industry has seen a growth spurt of more than 10% annually with the asset under management of mutual funds growing at 12.6% CAGR in the last 5 years. This staggering rise looks optimistic at first and to verify the facts a second survey was done in the late 2017 where 85% of the 1500 participants did not have access to their credit scores and 53% did not even know what a credit score is. This showed that the situation of financial literacy has not improved as expected in the country.

Keywords – Financial Literacy, Financial Knowledge, Causality, Demographics, Attitude, Spatial.

# I. RESEARCH OBJECTIVES

With the help of this research I want to analyse whether there exists a gap or discrepancy of financial literacy & knowledge within different attitudinal, socioeconomic & geographic strata of the country and more importantly if there is any correlation that exists due to these factors on financial knowledge and find out reasons why the country has not been able to grow in this domain holistically despite the growth of financial products and services such as Mutual Funds and Insurance etc.

# II. **REVIEW OF LITERATURE**

There is a lot of literature present in the area of financial literacy and its correlation to its determinants, however most of these papers take the simple demographic factors such as gender where males are generally more literate than women (Woodyard & Rob, 2012), income levels which talks about literacy increasing with income levels (Douissa, 2019), marital status which says that married individuals are more financially literate (Agarwal, Ben-David, Chomsisengphet & Evanoff, 2015) & education levels where higher education levels are directly correlated with high literacy (Kilyanni & Sivaraman, 2016). Very few papers take more abstract and deeper variants of factors into consideration such as Attitudinal Factors & psychological factors which found that financial well-being seemed to have a negative impact on intention while having a positive relationship with behaviour. (Sivaramakrishnan, Rastogi & Srivastava, 2017). However, there are no conclusive studies in this area which are compilation of all factors that influence financial literacy as a result of which the topic is in a grey area with some

information available in articles but not all. In the case of Indian evidence for the factors we majorly have only a few studies concentrating on engineering students (Thomas & Subhashree, 2020) or the young urban working population (Agarwalla, Barua, Jacob & Verma 2013) etc. The most conclusive study was "Financial Literacy & Planning: Evidence from India, 2015" being brilliant in its approach and detailed in theory pointed out that in India married men with high education backgrounds were generally the most literate group. "A Perspective on Financial Literacy and Inclusion in India" (Kapadia & Madhav, 2019) talks about the trade-off between financial inclusion and growth stability which provides a new perspective into the topic. Impact of financial literacy on general wellbeing of the public also allows for easy implementation of policies (Ozdemir et al, 2018) which uncovers a whole new area for research in the subject. Looking at spatial determinants, a study in US revealed that looking at aggregates of the 50 states financial literacy and aggregate poverty were inversely related (Bumcrot et al, 2013), a detailed study later found that a state's financial literacy is directly dependent on the characteristics of its neighbours (Geng et al, 2018). A few studies further found some specific geographical factors, such as residents of North Italy being more financially literate than their southern counterparts (Fornero & Monticone, 2011), that in Russia urban population is generally more literate (Klapper & Panos, 2011) & that residents of west Germany are more financially literate than their eastern counter parts (BucherKoenen & Lusardi, 2011) These studies have made great strides in uncovering the financial literacy as a topic, however there are no studies that are conclusive one stop considering all factors. There have been no study in India that consider spatial elements as factors which in a country like ours with vast differences in lifestyle, culture and living conditions could easily shed light on some determinants of financial literacy & knowledge that are unknown to us presently.

# III. RESEARCH GAP

Financial Literacy is a topic of huge gravitas in today's world in a country like India where, as previously mentioned, the growth of the financial industry is not carrying along the masses due to a flawed system and the huge gap between the poor and rich, financial inclusion and knowledge in our country is that much more important. Most papers in this subject consider age, gender, income levels, dependent family etc. as determinants or factors of financial literacy. Selected few reports talk about the impact of spatial factors or geography and most ones that do, do not allow for general conclusions and are country specific. Even fewer papers take into consideration the more focused and important determinants such as attitudinal factors and absolutely no research is a conclusive one stop study into financial literacy along with all its determinants on general terms where I think in a country like India with a huge gap in lifestyle and culture of the urban and rural population a conclusive study is not only possible but it is necessary.

# IV. RESEARCH METHODOLOGY

#### 4.1 Type of Research

The type of research conducted by me is **Basic** or **Fundamental Research** which is undertaken to extend the existing domain of knowledge about a certain subject. It is a **Conclusive Research** under which the study is of **Descriptive Type** which tries to understand the cause and reason for the varying amount of financial knowledge among the different sub-sets to describe the situation of how different groups are differentially financially literate. The data for the research was collected first-hand therefore it is **Primary** in nature and it is **Cross Sectional** as data is collected at one point in time. **Quantitative** research is to be done to establish cause effect relationships and show descriptive statistics of the study.

#### 4.2 Type of Research Design

Research Design is the conceptual framework within which the study is conducted. It is the blueprint for collection, measurement, and analysis of data. A plan of what data to gather, from whom, how and when to collect the data, and how to analyse are all a part of the research design.

For this research, a **Descriptive Design** was used as comparison between different groups are to be made based on their Financial Knowledge and the purpose of the study is to inquire about the prevailing conditions of events, objects or people. **Correlation Design** was used under that as it has a conceptual base, and it looks for cause and effect relationships. The data collected was through a questionnaire.

#### 4.3 Hypothesis

As the study tries to gauge the impact of different social strata (independent) on financial literacy and knowledge (dependent variable) of an individual, the null and alternative hypothesis are as follows,

 $H_0$  – Null Hypothesis – Social strata, spatial factors (residing area) & attitudinal factors have no notable effect on a person's financial literacy.

 $H_1$  – Alternative Hypothesis – Social strata, spatial variables & attitudinal factors do have a notable impact on a person's financial literacy.

#### 4.4 Population

Population are a group of people with same characteristics that are considered for the research. Population for this study included all residents of India who were old enough to make their own financial decisions (>15-year-old) and who were rational beings capable of taking their own decisions.  $\approx 800$ million. However, having access to such a large number was obviously not possible & therefore diverse sample is used as a representative of the population.

#### 4.5 Sampling

- 1. **Population** Included all residents of India who were old enough to make their own financial decisions (>15-year-old) and who were rational beings capable of taking their own decisions.
- 2. Elements People of different income groups and qualifications spread over various parts of the country who have the scope to be financially literate.
- **3. Sampling Frame** Youth and Middle-aged people residing in various different cities who are from different backgrounds and generally literate to be able to respond to an online survey.
- 4. Sampling Unit Individual respondents were profiled on the basis of their age, gender, marital status, occupation, income, educational qualification and the importance they give to financial knowledge, individuals across these domain formed sampling units.
- 5. Sample Size Sample size of 230 respondents is collected for this study.
- 6. Sampling Error Error of Non-Response was the sampling error faced as the questionnaire was sent to 750 people and at present there are only 230 respondents.
- 7. Sampling Technique Non-Probability Sampling has been used to conduct the collection of data. More specifically convenience and snowball sampling is used as questionnaire was sent to people available and willing to take part who then forwarded the questionnaire to others.



#### 4.6 Scales Used

Various types of scales have been used in the questionnaire for different purposes.

- Nominal Scale A nominal scale is the simplest scale and in which the numbers or letters assigned to objects serve as labels for identification or classification. There is no ranking involved here.
  - > In this research questions in profiling about gender and which investment vehicle they are aware of fall under this category along with yes no questions asking about various facts such as "Do you know what diversification means?"
- Ordinal Scale An ordinal scale contains things that you can place in order according to ranking.
  - > In this research questions based on location divided into metropolitan, urban, semi-urban and rural are based on rankings, question asking the respondent's educational qualification are examples of ordinal scale being used.
- Interval Scale An interval scale is a scale that not only arranges objects or alternatives according to their respective magnitudes, but also distinguishes this ordered arrangement in units of equal intervals.
  - > This study does not make use of interval scales.
- Ratio Scale Ratio scale is the highest level of measurement as it not only arranges objects according to magnitude and manages equal intervals but it also has an absolute zero term which indicates the lack of that variable.
  - Age and Income are the examples of Ratio Scale in this research, as they have equal intervals as well as an absolute zero of in Engineering their values possible.

One attitude scale is also made use of in the research as respondents are asked to mark how important they think financial literacy is in a society, this is the use of Semantic **Differential Scale.** 

#### 4.7 Instruments Used

A structured questionnaire was used as one of the means of primary data collection. The respondents were spread across

India, leading to greater representation of the population. The questions in the questionnaire are generally of closed type.

Different types of questions relating to profiling the respondents were asked first along with attitude based questions and in the later part of the questionnaire, questions tried to gauge the financial literacy and knowledge of the respondents so as to draw conclusions of different sub-sets in the social strata.

#### 4.8 Tools Used

Google Forms was used for data collection, as it is a cheap & user-friendly way to do so.

Tools used for further study and analysis are SPSS Software, Microsoft Excel and Google Forms. Statistical tools such as cross-tables, Bayesian coefficients & frequencies are to be used to find out correlation between variables in the data. Dispersion and central tendency of data such as variance, mean, mode etc are to be used to understand the data collected in depth. Pearson's chi-square, Spearman's rho have been used to test hypothesis. Graphical representation such as bar graphs, pie charts of the data will be shown with the help of Google forms and Excel while the various statistical tools will be measured and calculated using SPSS.

#### 4.9 **Ouestionnaire**

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The questionnaire floated out included three sections

Profiling of the respondent to understand their 1. background based on different parameters such as age, marital status, income, occupation etc.

> a. Attitudinal question was also included in this segment to understand how important they thought financial literacy was in the society.

Second section included the big 3 financial literacy questions and respondents who got all 3 of them right are termed as financially literate.

Third and the last section was included to 3. understand how knowledgeable the financially literate people were when real life knows how of finance and financial instruments came into the picture.

#### V. **DATA ANALYSIS**

Before we look at our data and start analysing it, it is important to look at parameters on which a respondent is termed as financially literate or knowledgeable. For a respondent to be termed financially literate they had to answer the 'big 3' questions right as is generally accepted.

For a respondent to be termed financially knowledgeable and aware of financial instruments they would have to know at least 3 of 5 investment avenues mentioned in the questionnaire, the basics of diversification & the rudimentary difference between the returns of savings account and mutual fund.





#### Looking at the profile of the respondents

Age Gro	oup					1
		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	18-32	157	68.3	68.3	68.3	
	33-46	22	9.6	9.6	77.8	
	47-60	29	12.6	12.6	90.4	1
	Above 60	15	6.5	6.5	97.0	
	Under 18	7	3.0	3.0	100.0	Table
	Total	230	100.0	100.0		1

People belonging to different age groups are considered for this study. The sample is young respondents heavy which corresponds to India's growing population. Varied age groups give us a snapshot into how financial literacy varies with age.

Gender						اير ا	
		Frequency	Percent	Valid Percent	Cumulative Percent	nel	
Valid	Female	108	47.0	47.0	47.0	gei	
	Male	122	53.0	53.0	100.0	ana	T-1-1- 0
	Total	230	100.0	100.0		F	1 able 2
			2			-	

Sample had a fair representation of male and female respondents as well with 53% respondents belonging to the former category and 47% to latter.



Marital Status							
		Frequency	Percent	Valid Percent	Cumulative Percent		
Valid	Divorced	2	.9	.9	.9		
	Married	72	31.3	31.3	32.2		
	Other	2	.9	.9	33.0		
	Single / Never Married	154	67.0	67.0	100.0		
	Total	230	100.0	100.0			



There is a good diversity of respondents where marital status is concerned as well with 67% being single, 31.3% married and 0.9% each divorced or other.

Occupation								
		Frequency	Percent	Valid Percent	Cumulative Percent			
Valid	Other	16	7.0	7.0	7.0			
	Salaried Employee	32	13.9	13.9	20.9			
	Self Employed / Business	44	19.1	19.1	40.0			
	Student	138	60.0	60.0	100.0			
	Total	230	100.0	100.0				

Table 4

Respondents from distinctly different occupation were made a part of this study, students, salaried employees, and self-employed people form a part of the sample in the aforementioned proportion. Students form the biggest sub-section of occupation in this study.

Monthly Income								
		Frequency	Percent	Valid Percent	Cumulative Percent			
Valid	20,000-40,000 ₹	27	11.7	11.7	11.7			
	40,000-60,000 ₹	21	9.1	9.1	20.9			
	60,000-80,000 ₹	15	6.5	6.5	27.4			
	Less than 20,000 ₹	132	57.4	57.4	84.8			
	More than 80,000 ₹	35	15.2	15.2	100.0			
	Total	230	100.0	100.0				

Table 5

Spectrum of people earning right from 'less than 20,000 ₹' all the way up till 'more than 80,000 ₹' were made a part of this study as well. Since most respondents to the study were student's frequency of respondents earning on the lower end of the spectrum is more.



Highest Educational Qualification							
		Frequency	Percent	Valid Percent	Cumulative Percent		
Valid 0	Graduation / Pursuing Graduation	167	72.6	72.6	72.6		
	High School	14	6.1	6.1	78.7		
	Intermediate	12	5.2	5.2	83.9		
	Post-Graduation & Above	37	16.1	16.1	100.0		
	Total	230	100.0	100.0			



Differently qualified people were surveyed in this study as is evident from the table. This allowed the study to analyse the impact of formal education on financial literacy as has been the topic of argument in recent research for a while.

Place of Residency							
		Frequency	Percent	Valid Percent	Cumulative Percent		
Valid	Metropolitan City (eg Mumbai, Delhi etc)	151	65.7	65.7	65.7		
	Rural (eg Dharchula, Lohaghat etc)	12	5.2	5.2	70.9		
	Semi-Urban (eg Ankleshwar, Chirala etc)	28	12.2	12.2	83.0		
	Urban (eg Noida, Solapur etc)	39	17.0	17.0	100.0		
	Total	230	100.0	100.0			

Table 8

Spatial features of the population were also taken into consideration for this research. Respondents were segregated according to the type of town/city they resided in.

In the attitudinal question, where respondents had to rate the importance of financial literacy in society, the results were overwhelmingly positive with most respondents rating the need for financial literacy at the highest level i.e. 5.

Attitude towards Financial Literacy								
	Ν	Minimum	Maximum	Mean	Std. Deviation			
Importance of Financial Literacy in society (1-5)	230	1	5	4.33	.969			
Valid N (listwise)	Valid N (listwise) 230							

Table 9

With a mean of 4.33 it is evident that most respondents consider Financial Literacy to be extremely important in the society. A standard deviation of 0.969 indicates that the data is well spread out with some respondents thinking that financial literacy is extremely unimportant as well.



#### 6.1 Normality Test

Tests of Normality							
	Kolmogorov	-Smirnov <sup>a</sup>		Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Age Group	.413	230	.000	.686	230	.000	
Gender	.357	230	.000	.635	230	.000	
Monthly Income	.341	230	.000	.710	230	.000	
Location	.406	230	.000	.654	230	.000	

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Occupation	.361	230	.000	.713	230	.000
Education	.441	230	.000	.580	230	.000
Marital Status	.426	230	.000	.614	230	.000
Attitudinal Factor	.345	230	.000	.710	230	.000
a. Lilliefors Significance Correction					-	

 $H_0 = Data$  in the variables are normally distributed.

 $H_1 = Data$  in the variables are non-normally distributed.

Since the significance level of all the variables (across demography, attitude and spatial) show extremely low significance level, we can conclude that the data is non-normally distributed (accepting the alterative hypothesis) hence non parametric tests such as Pearson's chi-square and Spearman's rho will be applied for testing hypothesis in the next sections of the study.

### VI. DATA INTERPRETATION

The study found that <u>48.7% of the total sample surveyed are financially literate</u>. This is a huge improvement as compared to the previous studies conducted in the same domain which proves that, as a country, India is learning and developing rapidly in the area of finance to at least be aware of the basics in 2020. Financial literacy of 48.7% is still not comparable to first world countries such as Canada & Australia which on an average report financial literacy anywhere between 61-70%. Some countries in Western Europe also report literacy rates of more than 71% compared to whom we still lag behind, however this study proves that we are on the right track to gradually become a more financially informed and literate nation.

Financially Literate						
		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	No	118	51.3	51.3	51.3	
	Yes	112	48.7	48.7	100.0	Table 11
	Total	230	100.0	100.0		

Establishing cause effect correlations to establish relations between different variables and their impact on financial literacy is the crux of the paper, the same will be carried out using various different tools such as cross tabulations, spearman's rank correlation, Pearson's correlation, Bayesian one way ANOVA etc. To use statistical tools for analysis in this study all responses are coded from string to numerical format.

A respondent being financially literate has been coded by the numerical '2'

A respondent being financially illiterate has been coded by the numerical '1'

#### 6.1 Association 1: Age & Financial Literacy

The relationship between age and financial literacy can be observed from the following Bayesian estimate table.

Bayesian Estimates of Coefficients <sup>a,b,c</sup>							
	Posterior			95% Credible Interval			
Parameter	Mode	Mean	Variance	Lower Bound	Upper Bound		
AgeGroup1 = 15-18	1.286	1.286	.036	.916	1.656		
AgeGroup1 = 18-32	1.497	1.497	.002	1.419	1.575		
AgeGroup1 = 33-46	1.591	1.591	.011	1.382	1.800		
AgeGroup1 = 47-60	1.552	1.552	.009	1.370	1.734		
AgeGroup1 = Above 60	1.200	1.200	.017	.947	1.453		
a. Dependent Variable: Financia	lly Literate						
b. Model: AgeGroup1							
c. Assume standard reference pri	iors.						



As can be observed from the aforementioned table financial literacy increases with increase in age till the age group of 33 to 46, where it peaks. From there it again decreases to hit the trough at the age group of 'above 60'. As a result, this model follows a normal distribution. The extreme age groups have performed worst while the middle age groups have performed considerably better. Financial literacy rates for the age group 33 to 46 stand at 59.09% whereas on the other end of the spectrum only 20% of respondents aged 60 and above passed the test.

Therefore, <u>financially literacy does vary with age</u>, however the relationship between the two is not linear and maxes out at the age group of 33-46.

## 6.2 Association 2: Gender & Financial Literacy

The relationship between gender and financial literacy can be observed from the following cross tabulation.

Gender * I	Financially Lite	rate Crosstabu	llation	
Count				
		Financially	y Literate	
		No	Yes	Total
Gender	Female	66	42	108
	Male	52	70	122
Total		118	112	230

The sample collected also shows major differences in the financial literacy rates of males and females. Only <u>38% of the female</u> respondent passed the financial literacy test whereas <u>57.37% of the total males answered the questions right</u>. About 20% higher financial literacy rates in males signifies that gender is a huge demographic factor that determines whether a person is financially literate or not due to variety of reasons.

The above correlation can be confirmed by Pearson chi-square test.

	Value	df	Asymptotic Significance (2 sided)	- Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7.838 <sup>a</sup>	1	.005		
Continuity Correction <sup>b</sup>	7.115	1	.008		
Likelihood Ratio	7.887	1	.005		
Fisher's Exact Test				.006	.004
N of Valid Cases	230				

Table 14

Since the value of Pearson chi-square is less than the significant value of 0.05 (0.005 < 0.05) it can be concluded that two variables exhibit correlation hence null hypothesis (H<sub>0</sub>) can be rejected and it can be said that a person's gender has an impact on them being financially literate.

#### 6.3 Association 3: Marital Status & Financial Literacy

The relationship between marital status and financial literacy can be observed from the following cross tabulation.

Marital Status * I	Financially Literate Crosstabulation	on			
Count		Financially	Literate		
		No	Yes	Total	
Marital Status	Divorced	2	0	2	
	Married	36	36	72	
	Other	1	1	2	
	Single / Never Married	79	75	154	
Total	•	118	112	230	



As is evident from the cross tabulation marital status has no significant impact on financial literacy. With single respondents exhibiting literacy rates of 48.7% and married respondents reporting something not too far away with 50% it is safe to assume that financial literacy or knowledge does not vary with this factor. Divorced respondents are too few in number to safely predict anything about that sub-set of the sample.

Chi-Square Tests					
Value	df	Asymptotic Significance (2-sided)			
1.949ª	3	.583			
2.720	3	.437			
230					
	Value   1.949 <sup>a</sup> 2.720   230	Value df   1.949 <sup>a</sup> 3   2.720 3   230 3			



a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .97.

The null hypothesis that states that marital status has no impact on financial literacy holds in this case as significance value 0.583 > 0.05

# 6.4 Association 4: Occupation & Financial Literacy

The relationship between occupation and financial literacy can be observed from the following cross tabulation.

Occupation <sup>3</sup>	* Financially Literate Crosst	abulation				
Count						
		Financial	ly Literate			
		No	Yes	Total		
Occupation	Other	12	4	16		
	Salaried Employee	14	18	32	ent	
	Self Employed / Business	16	28	44	' <sup>ana</sup> gem	Table 17
	Student	76	62	138		
Total		118	112	230		

The table above proves that financial literacy does in fact vary with a person's occupation. Self-employed people or the ones running their own business are the most literate whereas students, the least (apart from 'others') with the former showing literacy rates of 63.63% and the latter a mere 44.92%. Salaried employees find themselves in the middle of the spectrum with literacy rates of 56.25% this different could also be attributed to age however the occupation of an individual does have a huge part to play in a person being financially literate.

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)		
Pearson Chi-Square	9.043ª	3	.029		
Likelihood Ratio	9.268	3	.026		
N of Valid Cases	230				
a. 0 cells (0.0%) have expected c	ount less than 5. T	he minimum expe	ected count is 7.79.		



The alternative hypothesis  $(H_1)$  is accepted in this case as significance value of Pearson chi-square 0.029 < 0.05, which means that there exists some relation between occupation and financial literacy which is not by chance and can be extrapolated for the entire population.

### 6.5 Association 5: Monthly Income & Financial Literacy

The following cross tabulation draws out the relationship between monthly income and financial literacy.

Monthly Income *	Monthly Income * Financially Literate Crosstabulation					
Count						
		Financial	ly Literate			
		No	Yes	Total		
Monthly Income	0 - 20,000 ₹	74	58	132		
	20,000-40,000 ₹	13	14	27		
	40,000-60,000 ₹	10	11	21		
	60,000-80,000 ₹	10	5	15		
	More than 80,000 ₹	11	24	35		
Total		118	112	230		

Table 19

As is evident from the cross tabulation there seems to be some sort of a positive correlation between monthly income and financial literacy, apart from the  $60,000 \notin -80,000 \notin$  group that shows a very low literacy rate, the financial literacy is constantly increasing from the lower extreme to the upper. The financial literacy rates going from 43.93% at the lower end of the spectrum to 68.57% at the other end.  $20,000 \notin -40,000 \notin$  exhibits 51.85% with the subsequent group having 52.38% financial literacy.

The alternative hypothesis signifying correlation between the two variables can be proved as follows.

Correlations				
			Monthly Income	Financial Literate
Spearman's rho	Monthly Income	Correlation Coefficient	1.000	.130*
		Sig. (2-tailed)		.050
		Ν	230	230
	Financial Literate	Correlation Coefficient	.130*	1.000
		Sig. (2-tailed)	.050	
		Ν	230	230
*. Correlation is sig	nificant at the 0.05 level	(2-tailed).		-

Table 20

Spearman's rho is a non-parametric test which shows correlation between the two variables at 0.130 which says that a weak positive correlation exists between the two variables. Significance level 0.05 (=0.05 expected) helps us reject the null hypothesis and proves that the two variables exhibit relation.

#### 6.6 Association 6: Highest Educational Qualification & Financial Literacy

The relationship between the two variables can be better understood through the cross tabulation between them.

Highest Educational Qualification * Financially Literate Crosstabulation					
Count					
		Financial	lly Literate		
		No	Yes	Total	
Highest Educational Qualification	Graduation / Pursuing Graduation	91	76	167	
	High School	12	2	14	
	Intermediate	7	5	12	
	Post-Graduation & Above	8	29	37	
Total	•	118	112	230	



There exist significant differences in the financial literacy of people who have received different levels of education. It is notable that respondents who were post graduates or above had an incredible financial literacy rate of 78.37% whereas respondents who had only cleared high school recorded a vastly lower literacy rate standing at 14.2% indicating financial literacy does vary to a great extent with the education a person has received in his/her life.

Chi-Square Tests					
			Asymptotic		
			Significance (2-		
	Value	df	sided)		
Pearson Chi-Square	20.600 <sup>a</sup>	3	.000		
Likelihood Ratio	22.112	3	.000		
N of Valid Cases	230				
a. 0 cells (0.0%) have	expected cou	unt less than	5. The minimum		
expected count is 5.84.					



Pearson chi-square significance levels of 0.000 (< 0.05) indicate strong causality between the two variables mentioned therefore null hypothesis stating no relation should be rejected.

#### 6.7 Association 7: Spatial Factor (Location) & Financial Literacy

The respondents belonging to different areas of residence were chosen for this study to draw out spatial correlations as follows.

Area of Residence * Fin	Area of Residence * Financially Literate Crosstabulation					
Count						
		Financially	Literate			
		No	Yes	Total		
Area of Residence	Metropolitan City (eg Mumbai, Delhi etc)	80	71	151		
	Rural (eg Dharchula, Lohaghat etc)	11	1	12		
	Semi-Urban (eg Ankleshwar, Chirala etc)	11	17	28		
	Urban (eg Noida, Solapur etc)	16	23	39		
Total		118	112	230		

Table 23

As we can observe, spatial factors or where a person lives does play an important role in determining their financial literacy as well, respondents in metropolitan cities such as Mumbai and Delhi showed literacy rates of 47%, what was more interesting to note was that urban and semi-urban population showed even results with rates of 58.97% and 60.7% respectively. Respondents from the rural part of the country performed the worst with a literacy rate of 8.33%.

Testing the alternative hypothesis on Pearson's chi-square.

Chi-Square Tests						
	Value	df	Asymptotic Significance (2- sided)			
Pearson Chi-Square	11.263 <sup>a</sup>	3	.010			
Likelihood Ratio	12.691	3	.005			
N of Valid Cases	230					
a. 0 cells (0.0%) have expected count is 5.84.	expected cou	nt less than	5. The minimum			

Table 24

The significance level of 0.01 < 0.05 therefore we accept the alternative hypothesis which states that spatial factors are a determinant for financial literacy.



#### 6.8 Association 8: Attitudinal Factors & Financial Literacy

Attitudinal factors or how a person perceives the importance of financial literacy may have a huge part to play in them being financially literate, this relationship can be studied in the following cross tabulation

Importance of Financial Literacy * Financially Literate Crosstabulation						
Count						
		Financially Literate				
		No	Yes	Total		
Importance of Financial Literacy	Extremely Unimportant	4	0	4		
	Unimportant	9	2	11		
	Neutral	16	9	25		
	Important	34	20	54		
	Extremely Important	55	81	136		
Total		118	112	230		

The table shows that attitudinal factors have a huge role to play in financial literacy with progressively increasing literacy rates directly linked to how important a person thinks financial literacy is. Respondents who said it is extremely unimportant showed 0% financial literacy, people who ticked unimportant did slightly better at 18.18%. People who think it is neutral to important did similarly at 36% and 37.03% respectively and on the top end of the spectrum, people who think financial literacy is extremely important showed tremendously higher financial literacy rates of 59.55%.

Chi-Square Tests					
			Asymptotic		
			Significance (2-		ger
	Value	df	sided)		
Pearson Chi-Square	18.871 <sup>a</sup>	4	.001	М	8 8
Likelihood Ratio	20.866	4	.000		in <sup>ST</sup>
N of Valid Cases	230			s oplic	0
a. 2 cells (20.0%) have expected count less than 5. The minimum				ring AP.	Table 26
expected count is 1.95.					

The significance level of 0.001 < 0.05 therefore we accept the alternative hypothesis which states that attitudinal factors are a determinant for financial literacy.

#### 6.9 Financial Literacy & Financial Knowledge

Only respondents who passed the financial literacy test have been checked for financial knowledge about different investment instruments etc.

Financial Knowledge * Financially Literate Crosstabulation								
Count								
		Financially Literate						
		No	Yes	Total				
Financial Knowledge		118	0	118				
	No	0	23	23				
	Yes	0	89	89				
Total		118	112	230				

Table 27

25



As is evident, most people who financial literacy test also enough knowledge or financial know-how have to carry out their personal finance, investment decisions. 79.46% of the financially literate and 38.69% of the total sample can be termed as financially knowledgeable.

# VII. CONCLUSION & DISCUSSION

From the various cross tabulations and non-parametric hypothesis testing it is safe to conclude that all demographic (exception: marital status), spatial and attitudinal factors do have a part to play in deciding whether a person is financially literate or not. The tests and tools show that a male, residing in semi-urban area, aged 33-46, running his own business and earning more 80,000 ₹ a month who has completed his post-graduation has the highest chances of being financially literate. Literacy varies with all demographic and spatial factors as has been mentioned above however the role of attitude towards financial literacy as a concept probably is the biggest factor in deciding a person's financial literacy or knowledge with the literacy rates between the two extremes varying by a massive 79.46%. On the spatial scale there were a few surprises as respondents from metropolitan cities who on an average have greater access to education and learning tools performed worse than their urban and semi urban counter parts. Self-employed respondents did better than salaried employees as well. The positive correlation with age till middle age could be attributed to a late bloom in the formal education sector of the country due to which many old, aged people now have gone on without it. Male on an average scoring better could be due to the decisional patriarchy that we are still in the process of getting rid, where females aren't involved as much as males in financial decision making. Higher income groups exhibited higher levels of financial literacy as they need to better understand how to wisely use and invest their funds. Overall, the impact of demographic, spatial and attitudinal determinants on financial literacy is existent and evident.

# VIII. LIMITATIONS

The main limitation of this paper was that it could study the younger population of the country in greater depth compared to the older. As a result, the data is slightly skewed towards young students who earn less than 20,000 ₹. This hindered the study as the sample collected was non-normally distributed however non-parametric tests were used to overcome this problem.

Another limitation with the sample was that for the lower income group it mainly studied just the students who belonged to that group as they did not have to earn. The study fails to account for the urban and rural poor in its research.

# IX. MANAGERIAL IMPLICATIONS

The managerial implications of this paper would mainly communicate to the marketing managers dealing with financial instruments and investment avenues. Various different financial instruments to invest exist in the market and as concluded by my study there are different factors at play which decide whether an individual would invest his/her money through these instruments (such as mutual funds, insurance etc) or not. For example a post graduate who on an average is financially literate would more likely be interested in investing his money compared to someone who has merely passed high school and has no idea about investing, these conclusions can be drawn on every demographic and spatial factor in a similar way, marketing efforts of these financial instruments should be positioned and implemented accordingly.

This paper also calls out the government to implement better financial literacy education in areas where we lack even the basic ideas of finance. At the very least, rudimentary finance knowledge should be given to the rural and urban poor as it is the very base of a potentially prosperous society.

The study throws light on the gap that exists between the rich and poor as the rich know how to manage their money better and the poor have no idea about finance, the widening of this gap can be terminated if the poor are at least made aware and financially literate. Through this paper I hope to highlight the area of concern about the downtrodden having no financial knowledge or means to financial knowledge either.

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