

# An Empirical Study on Financial Literacy Level of Salaried Females in Delhi

**Jyoti Gupta**

PhD Scholar, Amity University  
Rohini, New Delhi

**Dr. Manish Madan**

Professor, Rukmini Devi Institute of  
Advanced Studies, GGSIPU  
Rohini, New Delhi

## Abstract

After promoting women employment, it is of immense need for our economy to take into consideration the fact that where and how they are spending or investing their funds. For appropriate utilization of funds, women need to be financially literate. In a metro city, Delhi, this study is conducted to determine the level of financial literacy among Salaried Females. Financial Literacy is a sum of financial attitude, financial behavior and financial knowledge. In the given study these three variables were analyzed to determine the level of financial literacy among working women in Delhi. It has been determined that the level of financial attitude score, financial behavior score, financial knowledge score and financial literacy score is not at par as desirable. The hypothesis of average scores has been tested by applying t-test which confirms the deviation in the values. Also the correlation between the three variables and Score of financial literacy is also determined. The methodology used is similar to the methodology recommended by OECD INFE in their studies on Financial Literacy. The results concluded that there is an average level of financial literacy among the salaried females of Delhi, which is matter of concern.

**Keywords:** Financial Literacy, Financial Attitude, Financial Behavior and Financial Knowledge

## Introduction

In a complex environment where the role played by the governments and employers had shrunk and the responsibilities of managing personal finances are completely on the shoulders of an individual, it is required to be financially literate and capable enough for sustaining. It is imperative on the part of an individual to analyze the situation and make right decisions for managing his finance.

The levels and influences of financial literacy are of immense need for employers, policy makers, educators, etc. Thus it is important to identify barriers and suggest solutions for the growth of its (Lusardi A. and Tufano P., 2009). The level of financial literacy is low among adults (Lusardi A., Olivia S. Mitchell and Curto V., 2010). Around the world researches conducted by researchers and PISA revealed that the financial literacy levels are low among individuals thus they are not making appropriate use of financial services and instruments available in the market. Individuals saves less for their future, takes unwise decisions and are loaded with the debt (Mitchell, O.S., 2011). Such sort of behavior is prevalent amongst youth, students (Lusardi A., Olivia S. Mitchell and Curto V., 2010).

RBI and Indian Government like the governments of other nations takes many fold initiatives for promoting financial literacy but the scenario and results are not very fruitful. RBI made it mandatory for the banks to promote financial literacy and also released draft for the same in the year 2012 (RBI, 2012). In India students are generally dependent on their parents and majority of Business men are still dependent on traditional sources of investments and managing funds. Salaried individuals have to wait till 1st of every month and budgets his month accordingly. The study focuses on salaried individuals whom the researcher felt in the utmost need of being financially literate.

Being financially literate doesn't mean only awareness about few financial concepts, rather it compose of financial behavior, attitude and knowledge (INFE OECD, 2011). Studies revealed that there are a few datasets available which delivers the information about financial literacy (Lusardi, A., 2009).

The paper is organized in the following manner. Section 2 highlights the literature relevant to the paper and the concept of financial literacy. Section 3 provides details of methodology used and sample characteristics. Section 4 lays down the interpretation and inferences. Section 5 comprises of the conclusion and the suggestions.

### **Literature Review:**

While there are several definitions of financial literacy exists, all of them are focused on the understanding and awareness of the financial concepts and then implementing these concepts in real life situations thus making right decisions which promotes financial wellness.

### **The OECD INFE, 2011 has defined financial literacy as follows:**

'A combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing.'

Agarwalla et al. (2013) concluded that socio demographic factors influence the financial literacy of Individuals. The demographic factors which were studied and relationship determined were Gender, Age, Marital Status, Financial Decision Making Process, Budgeting of expenditure, Joint family (Family composition), Mother's education and Family financial situation. The results drawn were similar to other studies that socio demographic factors influence the financial literacy of Individuals. The demographic variables which were found to be relevant from the point of view of the study on financial literacy were gender, age, race, and marital status, number of children under 18 living in the household, monthly income, employment status, assets and debt. But as the information about the assets is difficult to obtain therefore the question asked was that whether

respondent owns a house or not. An important variable included in the research was that whether the respondent filed an income tax return last year or not? (Min Zhan et al. (2006). The study by Lusardi and Tufano (2009) revealed that males are more financial literate than females. Younger section (below 30) answered the debt related questions wrongly hence debt literacy is also lower among this section. The research also conforms the finding of other researchers that there is a low level of financial literacy among younger section of the respondents (below 30) and older women (65 above). Financial literacy has been reported low among respondents who are divorced, widowed and separated (Lusardi and Tufano, 2009)

The study examined the relationship between three dimensions of Financial Literacy and found positive relationship between Financial Behavior and Financial Knowledge, however the study reflected negative relationship between Financial Attitude and Financial Behavior, which was contrasting and unexpected (Agarwalla et al., 2013). Financial knowledge and Financial Planning are closely related. It has been investigated that those individuals who displayed higher level of financial literacy are found to be in a habit of planning (Lusardi and Mitchell, 2008). Huston, 2010 in a study revealed that 4 common factors which are recurrently studied in 71 previous studies and found important from the point of view of financial literacy are personal finance, borrowings, saving/investing and protection (insurance or risk diversification). Also mentioned the basic concepts which are used in measuring financial literacy concept are TVM, Planning, Economy, Borrowing, Credit Cards, Loans, Mortgages, Savings/Investment, Stock, Bond, MF, Retirement Savings, Protection Concepts Are Insurance, Real Estate, Tax Planning, etc.

The study reveals that the respondents scored very low in literacy scales and financial numeracy. Moreover, less participation in stock market is observed from those respondents who are less financially literate (Christeli et al., 2010). Also found that the respondents scored very low in literacy scales and financial numeracy. Moreover, less participation in stock market is observed from those respondents who are less financially literate. The study by Puneet Bhushan, 2014 stated that there is a lack of awareness among individuals (salaried) about new financial products and services due to which they are deprived of their advantages. However they are relying on traditional financial products like fixed deposits, bank loans, etc.

### **Methodology:**

Exploratory cum descriptive research design is followed in the given study. The target population is the salaried females in Delhi NCR. As reported by Statistical Abstract of Delhi issued by Government of India, there are 247794 working

females in Delhi. By assuming the confidence level of 99% and confidence interval of 10, the sample size above 200 is sufficient (Lenth, R. V. (2001)). The technique of convenience sampling was used for collecting data from the sample of 500 respondents, but only 463 was taken into consideration due to few respondents who didn't respond to the questionnaires and also taking into consideration the missing values.

Three variables were taken into consideration for determining the score of financial literacy of salaried females (OECD INFE, 2015). Socio demographic variables like education, marital status and family income was also studied along two additional variables which are process of financial decision making and budgeting expenditures regularly.

The questionnaire recommended by OECD INFE used for data collection. OECD also provides a guideline for measuring financial literacy which suggests that Financial Literacy is the sum of Financial Knowledge, Financial Behavior and Financial Attitude.

### Objectives of the Research are following:

- To determine the level of financial literacy among salaried females in Delhi.

- To find the correlation between the three variables (Financial Behavior, Financial Attitude and Financial Knowledge) with the financial literacy score.

Tavakol and Dennick (2011) suggested in an editorial that the researchers should use cronbach's alpha for increasing the accuracy and validity of their results. Also for testing the internal consistency and reliability of the scales (Likert), cronbach's alpha is recommended. The value above 0.7 is considered as a good value to carry forward (Joseph A. and Rosemary R., 2003). Martin and Altman, 2002 also recommended that for testing the content validity the cronbach's alpha is the best summary measure. The value of cronbach's alpha in the given research is 0.778 which is greater than 0.7 hence the questionnaire can be considered as the reliable (Table 1).

**Table:1 Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.778	.692	20

*SPSS OUTPUT*

**Table:2 Financial Knowledge, Financial Behavior and Financial Attitude**

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
FK	463	1.00	7.00	2041.00	<b>4.4082</b>	1.70297
FB	463	1.00	7.00	1952.00	<b>4.2160</b>	1.16997
FA	463	3.00	15.00	4098.00	<b>8.8510</b>	4.31967
Valid N (listwise)	463					

*SPSS OUTPUT*

### Financial Knowledge:

The Variable naming financial knowledge comprises of seven questions which are used for assessing the numerical aptitude and conceptual knowledge of the respondents. Questions about interest rates, numeracy, and compounding, risk, return and risk diversification were included in the head of financial knowledge.

For each correct answer the score of 1 and for incorrect answer the score of zero was assigned. Thus the total score of 7 was the maximum score which can be obtained in financial knowledge. There are few respondents who scored the score of 7 reflecting the high level of financial knowledge but there are also a few respondents whose score is only one 1 out of 7 which reflects the poor level of financial knowledge.

**Hypothesis: 1**

**Null:** The average financial knowledge level of respondents is equal to 5.

**Alternate:** The average financial knowledge level of respondents is less than 5.

The average score of respondents out of 7 is 4.4082 (Table 2). Which is lower than the assumed and acceptable level of 5. The p value (obtained from one-tail t-test) is .000 which is less than 0.05 thus we there is enough evidence to reject the

null hypothesis in favor of alternate hypothesis (Table:3). Therefore it can be concluded that the average level of financial knowledge is significantly different and less than 5. However for further analysis respondent's score was categorized into 3 categories and points were assigned accordingly. Respondents who scored 1,2 or 3 were given the lowest score of 1 only, respondents who scored 4 or 5 were given the score of 2 and the respondents who were considered as the acquirer of good financial knowledge and scored 6 or 7 were given the score of 3.

**Table :3 T –test for Financial Knowledge**

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
FK	55.699	462	.000	4.40821	4.2527	4.5637

*SPSS OUTPUT*

**Financial Behavior:**

Variable Financial Behavior comprises of eight questions which were asked from the respondents to assess their behavior towards financial matters. Are they responsible enough and makes household budget, are they saving actively, do they consider before buying anything, do they pay all their bills on time, are they keeping a close watch on their financial affairs, do they have any long term financial goal, do they evaluate all financial alternatives before investing and do they prefer to borrow when stacked in a debt trap. For each desirable response score of 1 is given and

for undesirable responses the score of zero is assigned. It is a matter of concern that no female scored the maximum of 8 however the lowest score is 1 like financial knowledge. The average financial behavior score is 4.21 out of 8, which is approximately half way of the behavioral score (Table 2).

**Hypothesis: 2**

**Null:** The average level of financial behavior score is equal to 6.

**Alternate:** The average level of financial behavior score is less than 6.

**Table- 4 t- Test for Financial Behavior**

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
FB	77.538	462	.000	4.21598	4.1091	4.3228

*SPSS OUTPUT*

As stated above that the average level of financial behavior score of respondents is below 6 which are assumed and desirable score. After running one tail t-test analysis the p-values comes out to be 0.000 which is lower than the alpha value of 0.05 thus there is enough evidence to reject null hypothesis in favor of alternate hypothesis (Table: 4). Therefore the average financial behavior score of financial behavior is significantly different from and less than 6. This shows the low level of desirable financial behavior.

**Financial Attitude:**

Variable financial attitude involves only 3 statements only which were scaled on 5 point Likert. The maximum score which can be obtained by the respondents is 15 and the minimum score is found to be 3 only after analysis. The average score is 8.85 with the variance of 16.5 which can be considered as an average attitude of respondents towards financial matters (Table 2).

**Hypothesis: 3**

**Null:** The average level of financial attitude score is equal to 12.

**Alternate:** The average level of financial attitude score is less than 12.

**Table- 5 t- Test for Financial Attitude**

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
FA	44.089	462	.000	8.85097	8.4565	9.2455

*SPSS OUTPUT*

The p-value is 0.000 which is less than 0.05 thus rejecting the null hypothesis in favor of alternate hypothesis, hence the average level of financial attitude score is significantly different from and less than 12, which is desirable level of financial attitude (Table: 5).

**Financial Literacy Score:**

Above mentioned three variables were summed up for calculating the score of financial literacy. For reaching to the score all the variables were scaled down to 3 and the maximum score of 9 was considered for financial literacy. The average score of financial literacy is 5.24, which is less

than 6 (Table 6). In this study the score of 6 assumed as the benchmark thus the score of 6 or above is considered as good and the score of 4 or below is considered as poor. The value determined is 5.24 which is an average financial literacy score of salaried females in Delhi NCR.

**Hypothesis: 4**

**Null:** The average level of Financial Literacy score is equal to 6.

**Alternate:** The average level of Financial Literacy score is less than 6

**Table: 6 Financial Literacy Score of Salaried Females in Delhi**

	N	Minimum	Maximum	Mean	Std. Deviation
FL	463	1.78	7.82	<b>5.2404</b>	1.39702
Valid N (listwise)	463				

*SPSS OUTPUT*

**Table: 7 t-Test for Financial Literacy**

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
FL	80.715	462	.000	5.24042	5.1128	5.3680

*SPSS OUTPUT*

The one tail t-test p-value 0.000 from SPSS output states that the average financial literacy score of salaried females is significantly different from and less than 6 (Table: 7). Therefore it can be concluded that the salaried females in Delhi are not enough financially literate.

**Hypothesis 5:**

There is no significant relationship between Financial Behaviour and Financial Literacy Score

**Hypothesis 6:**

There is no significant relationship between financial attitude and financial literacy score

**Hypothesis 7:**

There is no significant relationship between financial knowledge and financial literacy score.

Established correlations between the three variables and the score of financial literacy is presented in Table 8. There is a strong positive correlation of .373 between the Financial Behavior and the level of financial literacy score reflects that the positive financial behavior can lead to increase in

financial literacy level. Since the significance value is .000 in this case thus null hypothesis is rejected and it can be interpreted that there is a significant relationship between Financial Behavior and Financial Literacy Score.

The second and third hypothesis is also rejected in favor of significant correlation between financial knowledge and financial literacy score as well as significant correlation between Financial Attitude an Financial Literacy level of the respondents.

**Table: 8Correlations**

		Financial Behavior Scale to 3	Financial Knowledge Scale to 3	Financial Attitude Scale to 3	Financial Literacy
Financial Behavior Scale to 3	Pearson Correlation	1	-.075	.158**	<b>.373**</b>
	Sig. (2-tailed)		.008	.001	<b>.000</b>
	N	463	463	463	463
Financial Knowledge Scale to 3	Pearson Correlation	-.075	1	.324**	<b>.699**</b>
	Sig. (2-tailed)	.108		.000	<b>.000</b>
	N	463	463	463	463
Financial Attitude Scale to 3	Pearson Correlation	.158**	.324**	1	<b>.837**</b>
	Sig. (2-tailed)	.001	.000		<b>.000</b>
	N	463	463	463	463
Financial Literacy	Pearson Correlation	.373**	.699**	.837**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	463	463	463	463

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*SPSS OUTPUT*

**Conclusion:**

Working females comprises of major portion of workforce in Delhi, therefore it is essential for them to be financially literate. As per the recommendations given by OECD, Financial literacy is a composition of financial attitude, financial behavior and financial knowledge of an individual. These three variables are significantly positively correlated with the financial literacy score of an individual, as concluded by this study.

Also the average financial literacy score of females who are salaried in Delhi is only 5.24, while some reported the

lowest score below 2. It is a matter of concern for the economy that in a capital region the females who are considered as confident and educated are scoring below 6 out of the score of 9 in financial literacy assessment. It can be concluded that government should initiate few more steps in this direction, so that the maximum and efficient use of financial market and instruments will be possible.

**Bibliographic References:**

Lusardi, A., & Tufano, P. (2009). Debt literacy, financial experiences, and over indebtedness (No. w14808). National Bureau of Economic Research.

- Lusardi, A., Mitchell, O. S., &Curto, V. (2010).Financial literacy among the young.Journal of Consumer Affairs, 44(2), 358-380.
- Keskin, H. K. (2014). Programme for International Student Assessment (PISA) Reading Competencies: A Study of the Factors in Academic Reading. Anthropologist, 18(1), 171-181.
- Mitchell, O. S. (2011). Managing Risks in Defined Contribution Plans: What Does the Future Hold?.Growing Old: Paying for Retirement and Institutional Money Management After the Financial Crisis.
- Lusardi, A., Mitchell, O. S., &Curto, V. (2010).Financial literacy among the young.Journal of Consumer Affairs, 44(2), 358-380.
- RBI (2012).National strategy for financial education. Reserve Bank of India.Downloaded from <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/NSFE016072012.pdf> on March 2016.
- INFE, O. (2011). Measuring financial literacy: core questionnaire in measuring financial literacy: questionnaire and guidance notes for conducting an internationally comparable survey of financial literacy. Pariz: OECD.
- Lusardi, A. (2009). The importance of financial literacy.NBER Reporter, 2, 13-16.
- OECD
- INFE, O. (2011). Measuring financial literacy: core questionnaire in measuring financial literacy: questionnaire and guidance notes for conducting an internationally comparable survey of financial literacy. Pariz: OECD.
- Agarwalla, S. K., Barua, S. K., Jacob, J., &Varma, J. R. (2013).Financial Literacy among Working Young in Urban India.Indian Institute of Management Ahmedabad, WP, (2013-10), 02.
- Zhan, M., Anderson, S. G., & Scott, J. (2006). Financial knowledge of the low-income population: Effects of a financial education program. J. Soc. & Soc. Welfare, 33, 53.
- Lusardi, A., &Tufano, P. (2009).Debt literacy, financial experiences, and overindebtedness (No. w14808).National Bureau of Economic Research.
- Lusardi, A., & Mitchell, O. S. (2008).Planning and financial literacy: How do women fare?(No. w13750). National Bureau of Economic Research.
- Huston, S. J. (2010). Measuring financial literacy. Journal of Consumer Affairs, 44(2), 296-316.
- Christelis, D., Jappelli, T., &Padula, M. (2010).Cognitive abilities and portfolio choice. European Economic Review, 54(1), 18-38.
- Bhushan, P. (2014). An empirical study of financial and tax literacy of salaried individuals.
- GoI(2014).Statistical Abstract of Delhi-2014.Downloaded from <http://www.delhi.gov.in/wps/wcm/connect/f508bc8046667b0e9cf6bcf5a4ed47e7/Statistical+Abstract+of+Delhi+2014.pdf?MOD=AJPERES&lmod=66436406&CACHEID=f508bc8046667b0e9cf6bcf5a4ed47e7> on March 2016.
- Lenth, R. V. (2001). Some practical guidelines for effective sample size determination. The American Statistician, 55(3), 187-193.
- INFE, O. (2012). Supplementary Questions: Optional Survey Questions for the OECD INFE Financial Literacy Core Questionnaire. Retrieved March, 10, 2015.
- Tavakol, M., &Dennick, R. (2011).Making sense of Cronbach's alpha.International journal of medical education, 2, 53.
- Gliem, R. R., &Gliem, J. A. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.
- Bland, J. M., & Altman, D. G. (2002).Validating scales and indexes.Bmj, 324(7337), 606-607.