

## Financial literacy in the state of Haryana

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### 1. Introduction

There is an increasing stress about financial stability in the world, with expanding gap between rich and poor, there comes the question of financial literacy. According to the “OECD International Survey of Adult Financial Literacy 2020” done on 26 countries financial literacy is measured as low across the sampled economies with average score of only 12.7 out of 21, as per the OECD/INFE scoring methodology which measures set of basic financial skills, behaviours, and attitudes. There are three essential ingredients recognized for the financial empowerment of individual by the G20 leaders which are – Innovative Financial Inclusion (2010); Financial Consumer Protection (2011); and National Strategies for Financial Education (2012).

Financial Literacy could be defined differently from different perspectives and fields, for some like economists it is a broad concept and for others such as financiers it may be a narrow concept, some of the views are as follows:

(Lusardi & Mitchell, 2014) “Peoples’ ability to process economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions.”

(OECD/INFE, 2018) “A combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing.”

(Danes & Haberman, 2007) “Financial literacy is the ability to interpret, communicate, compute, develop independent judgments, and take actions resulting from those processes in order to thrive in our complex financial world.”

These definitions can conclude on one common factor pointing towards the importance of financial literacy for all the individuals of the economy.

Financial system has become complex over the past few years with the introduction of many new financial services and products. With such a drastic shift in the financial system, a minimum level of financial literacy is must to understand the associated risk and return. Financial literacy will enable individuals to process economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions (Lusardi & Mitchell, 2014).

The poor are unknown of credit availability whereas the rich avail all the benefits allowing the credit creation in the wrong direction. The private sector banks are pushing for a secured debt so to earn immense profits via interest while the focus shall be on pushing the debt into sectors of economic interest. The SME are the big proportion of the economy and for them getting credit is a difficult task all due to assurance in terms of collateral or financial literacy of the entrepreneur.

The rich may not really be rich if we look at the financial stability, if the source of income for salaried individuals perish then they would turn poor if they are not financially literate and have invested the money to make some source of passive income. Lottery winners for example wouldn’t be able to sustain even if they win huge amounts at once unless they are financially literate.

Research has shown that levels of financial literacy worldwide are unacceptably low (OECD 2020). Developing countries have much less financially literate population as compared to developed countries that may lead them to make serious and often irreversible mistakes. The governments and various organizations such as Economic Co-operation and Development (OECD), Financial Literacy Advisory Body India (FLAB), the U.K. Department of International Development (DFID), and the World Bank are promoting financial literacy in developing countries by imparting financial education.

The country like India with high young demographic dividend, the government and other private institutions have taken ladder through financial education programs to increase the level of financial literacy. Though delayed but India has the best financial infrastructure today with latest technology available around the world.

A big improvement in financial knowledge of individuals is necessary. The financial knowledge will lead to financial inclusion which will lead towards financial stability of the economy. The present study will make an attempt to assess financial literacy which will help the policy makers and regulators to frame the future roadmap accordingly.

## 2. Literature Review

(Remund, 2010) has defined financial literacy as knowledge of financial concepts and the ability and attitude to implement that knowledge in financial decision making. (Lusardi & Tufano, 2009), (Lusardi & Mitchell, 2011) conceptualized financial literacy as the knowledge of basic financial concepts and ability to do simple calculations. Various empirical works have been done to measure financial literacy rates in different countries.

(Volpe et al., 1996) surveyed 454 undergraduate business students from only one university using an instrument of 23 items that focused primarily on investment knowledge. Findings show a low average literacy score of 44%, with those who majored in business being more knowledgeable on investments than those who did not major in business.

(Duflo & Saez, 2002) reported that peers play an important role in retirement planning of an individual. (Chan & McNeal, 2004) also stated that the consumer socialization agents have high influence on financial attitude.

(Lusardi & Mitchell, 2007), (Almenberg & Säve-Söderberg, 2011), (Klapper & Panos, 2011) reported that low levels of financial literacy are positively associated with low levels of retirement planning. Results showed that those who planned for retirement accumulated three times as much wealth as those who did not (Lusardi & Mitchell, 2011).

Studies also revealed other forms of financial illiteracy. Many consumers answered a 'money illusion' question incorrectly, suggesting they did not understand the consequences of inflation (Mitchell & Lusardi, 2006).

(Lusardi & Tufano, 2009) stated that lack of financial knowledge is one of the most important factors that may promote excessive borrowing. (Sevim et al., 2012) found that financial consumers with a higher level of financial literacy appear to be less likely to exhibit excessive borrowing behaviour and more informed credit use behaviour.

(Cole, S., Sampson, T., & Zia, 2011) measured the level and predictors of financial literacy and to assess the effect of financial literacy on demand of banking products in India and Indonesia.

They found that the financial literacy is an important predictor of financial behaviour in emerging market countries. Survey data from Indonesia and India demonstrates that financial literacy is an important correlate of household financial behaviour and household well-being, however, there is no credible evidence on the effects of financial literacy programs.

(Bhushan & Medury, 2020) conducted a study on salaried individuals and found that the men have higher financial knowledge than women; the level of financial literacy increases with the increase in educational qualification.

(Agarwalla et al., 2015) reported in their study that working youth of India has poor financial knowledge based on the basic numeracy, money related and inflation questions. The study found that there is a positive impact of consultative decision making in financial literacy that exhibit superior financial behaviour in contrast to inferior financial knowledge and attitude.

(Choudhary & Kamboj, 2017) used the financial literacy analysis tools provided by the Organisation for Economic Cooperation and Development (OECD) to study the financial literacy rate on the state of Haryana. The study showed 57% of the respondents were financially not literate or they lacked a positive financial attitude. The study was conducted with data of 500 respondents.

(Jadhav, 2020) described financial literacy in India and used the basis points of National Institute of Securities Market (NISM) to study the literacy rate in the country. The study gave the overview of financial education, financial attitude and financial behaviour according to the demographics in the country.

(Poonam & Chaudhry, 2017) gave an analysis of financial inclusion in the state of Haryana with the determinants like banks, insurance companies, post-offices, micro-finance institutions and self-help groups etc. the study focused on the index of financial inclusion with a district wise comparison. The results portray a need for more financial education and inclusion in the state.

(Singh, 2020) did a ranking of Indian states on the basis of financial literacy with the help of correlation tool developed by the researcher by developing positive and negative factors of financial literacy. The study used two methods one developed by the researcher and the other is direct ranking method provided on the basis of financial literacy of data of states compiled from the National Centre for Financial Education Report, 2015 of India. The study found that Goa was ranked first on the basis of both the methods.

### **3. Research Gap**

It has been observed that there is ample research in the field of financial literacy around the globe but there is a huge gap in the researches in the state of Haryana, where there has not been any study, found as per researchers knowledge, been done in the state with localisation factor. The conducted studies have taken up questionnaire developed by Organisation for Economic Cooperation and Development (OECD). A more localised questionnaire is required to get the real picture of financial literacy in the state.

### **4. Scope & Objectives of the Study**

- (i) To analyse the financial literacy rate in the state of Haryana

- (ii) To find the scope of knowledge for financial concepts in the state
  - a. Savings
  - b. Time Value of Money
  - c. Inflation
  - d. Diversification
  - e. Borrowing risk
- (iii) To find out the relationship between financial literacy in the state and various demographic factors.

## 5. Methodology

The financial concepts shall be known to the population in current times and also been stressed out, under the scheme National Strategy for Financial Education, by institutions like RBI by organising financial literacy camps, initiatives by PFRDA, investor awareness programs by SEBI, initiatives by IRDA etc. To measure financial literacy among individuals in the state of Haryana, a questionnaire is created with some financial concepts. The questions if answered correctly will give a view of the conceptual understanding of the applied finance in the day to day life. The focus is on the knowledge of concepts like interest rates, inflation, investment avenues, savings and financial risk. The questions are framed keeping in mind the awareness programs and the learnings given by these programs.

The question are being asked through a google form which was circulated in the state for first hand data collection and the questionnaire included some demographic questions relating to age, gender, educational qualification and occupation. These demographic questions will define the base of the research as to analyse the results of financial literacy.

The score of 1 or 0 is given to five questions each and further regression model is used to analyse the data. A score of 1 shows the respondent has marked the correct answer and the respondent is aware about the financial concept; a score of 0 portrays the incorrect answer and the respondent is unaware of the financial concept. Each question is linked to certain financial concept where some are basic concepts and some are intricate concepts which will tell about the financial well-being of individuals in their life.

To test the hypothesis of this study, the researchers analysed the association between financial literacy and age, education level, occupation and gender using regression model taking financial literacy as the dependent variable, and the demographic factors as independent variables.

The regression model is expressed as:

$$\text{Financial Literacy} = \beta_0 + \beta_1 \text{ Age} + \beta_2 \text{ Educational Qualification} + \beta_3 \text{ Occupation} + \beta_4 \text{ Gender} + \varepsilon$$

Where:

Financial Literacy = the probability of respondent having financial literacy for the regression test (1 for financial literacy; 0 otherwise)

Age = 1 if a participant is in age group of 15-25; 2 for the age group 26-40; and 3 for the age above 40

Educational Qualification = 1 for high school; 2 for Graduate level; 3 for Post Graduate and 4 for the Ph.d

Occupation =

1 for Student; 2 for Salaried (Pvt.); 3 for Salaried (Govt.); 4 for Self-employed/Business; and 5 for House Wife

Gender = 1 for Male and 2 for Female

$\epsilon$  = error term

The Literacy measure is done on the basis of five major financial concepts and researchers have opted for those respondents, who answer at least four out of the five questions as correct, as financially literate and those respondents who were able to answer only three or less questions correctly were rejected to be financially literate.

For further analysis a question was put in the questionnaire to see if the financial decisions are taken by the respondent at their own or from other sources. The question was asked to see if the financial decisions are in line with the financial literacy of the respondents.

## 6. Findings and Analysis

**Table 1 – Demographic Profile of the Sample**

Demographic Profile					
Age	n	% of sample	Occupation	n	% of sample
15-25	100	37.31	Student	76	28.36
26-40	130	48.51	Salaried (pvt)	95	35.45
above 40	38	14.18	Salaried (govt.)	45	16.79
			Self-employed/business	39	14.55
			House Wife	13	4.85
Education	n	% of sample	Gender	n	% of sample
High school	34	12.69	Male	129	48.13
Graduate	88	32.84	Female	139	51.87
Post Graduate	101	37.69			
Ph.d	45	16.79			

Table 1 provides descriptive statistics for the respondent's characteristics. From the table, there are 268 respondents of which 100 respondents i.e. 37% are from age group of 15-25 years, 130 respondents i.e. 49% fall in the age group of 26-40 years and 38 respondents are above 40. The average education level of the sample is quite higher with 17% of the sample with doctorate degree, 38% are post graduate and 33% are graduate. 48% of the respondents are male and 52% are female respondents. Out of the total, 28% of the sample belongs to student category, 51% are salaried class (from pvt. and govt. sector).

The responses to the different literacy questions are presented in Table 2. The responses to the saving question reported that 68.6% of the respondents have shown good saving habits while the remaining 31.4% of the respondents either just don't save at all or save only the leftover money. The analysis revealed that the sample belonging to age group of 26-40 years have good saving

habits i.e. 73% as compared to their counterparts. The saving habits across education levels varied; higher levels of education result in good saving habits

On the time value question, 86.57% correctly answered that they want to have the money at the present date while about 13.53% gave the answer that they would prefer it to have later. There exists no association with the demographic profile of the respondents.

Responses to the inflation question are also shown in Table 2. Only 45% of respondents correctly responded that the investment would decline when the inflation rate exceeded the savings rate while 55% gave incorrect responses, thinking their money would grow or remain stable in spite of high inflation. The data indicated that non-government employees have higher knowledge of inflation as compared to government employees, and also the knowledge of inflation increases with the increase in education level of the respondents.

For the fourth question on risk diversification, nearly 66% of sample correctly answered the question that it would be less riskier to have a diversified portfolio. The knowledge of diversification is positively associated with the education level of respondents, with 91% of the respondents who possess a doctorate degree and 73% with a post graduate degree have correctly answered the question.

The majority of respondents have debt literacy as revealed by the question of borrowing risk with 95% of the respondents have correctly answered the question.

**Table 2: Distribution of Response to Literacy Questions**

	n	Savings		Time Value		Inflation		Diversification Risk		Borrowing Risk	
		literate	%	literate	%	literate	%	literate	%	literate	%
Age (Years)	100	65	65.00	90	90.00	40	40.00	63	63.00	98	98.00
	130	95	73.08	113	86.92	65	50.00	94	72.31	126	96.92
Education	38	24	63.16	29	76.32	17	44.74	20	52.63	31	81.58
	34	20	58.82	28	82.35	9	26.47	18	52.94	33	97.06
Occupation	88	58	65.91	76	86.36	37	42.05	44	50.00	85	96.59
	101	72	71.29	90	89.11	51	50.50	74	73.27	94	93.07
Gender	45	34	75.56	38	84.44	25	55.56	41	91.11	43	95.56
	76	45	59.21	70	92.11	30	39.47	47	61.84	74	97.37
Overall	95	71	74.74	81	85.26	51	53.68	66	69.47	87	91.58
	45	33	73.33	38	84.44	20	44.44	30	66.67	44	97.78
Overall	39	30	76.92	35	89.74	17	43.59	28	71.79	37	94.87
	13	5	38.46	8	61.54	4	30.77	6	46.15	13	100.00
Overall	129	90	69.77	118	91.47	60	46.51	89	68.99	121	93.80
	139	94	67.63	114	82.01	62	44.60	88	63.31	134	96.40
Overall	268	184	68.66	232	86.57	122	45.52	177	66.04	255	95.15

Table 3

<b>Savings</b>	<b>B</b>	<b>t</b>	<b>Sig.</b>	<b>Diversification</b>	<b>B</b>	<b>t</b>	<b>Sig.</b>
Age	-0,031	-0,607	0,544	Age	-0,137	-2,781	0,006
Education Qualification	0,076	2,071	0,039	Education Qualification	0,236	6,755	0,000
Occupation	0,009	0,303	0,762	Occupation	0,003	0,110	0,913
Gender	-0,069	-1,127	0,261	Gender	-0,186	-3,196	0,002
<b>Interest</b>	<b>B</b>	<b>t</b>	<b>Sig.</b>	<b>Borrowing Risk</b>	<b>B</b>	<b>t</b>	<b>Sig.</b>
Age	-0,063	-1,686	0,093	Age	-0,095	-4,080	0,000
Education Qualification	0,061	2,277	0,024	Education Qualification	0,004	0,257	0,797
Occupation	-0,021	-1,022	0,308	Occupation	0,027	2,164	0,031
Gender	-0,113	-2,545	0,011	Gender	0,036	1,294	0,197
<b>Inflation</b>	<b>B</b>	<b>t</b>	<b>Sig.</b>	<b>Total Score</b>	<b>B</b>	<b>t</b>	<b>Sig.</b>
Age	0,009	0,158	0,875	Age	-0,118	-2,221	0,027
Education Qualification	0,118	3,014	0,003	Education Qualification	0,192	5,099	0,000
Occupation	-0,030	-1,002	0,317	Occupation	-0,010	-0,338	0,735
Gender	-0,090	-1,386	0,167	Gender	-0,038	-0,600	0,549

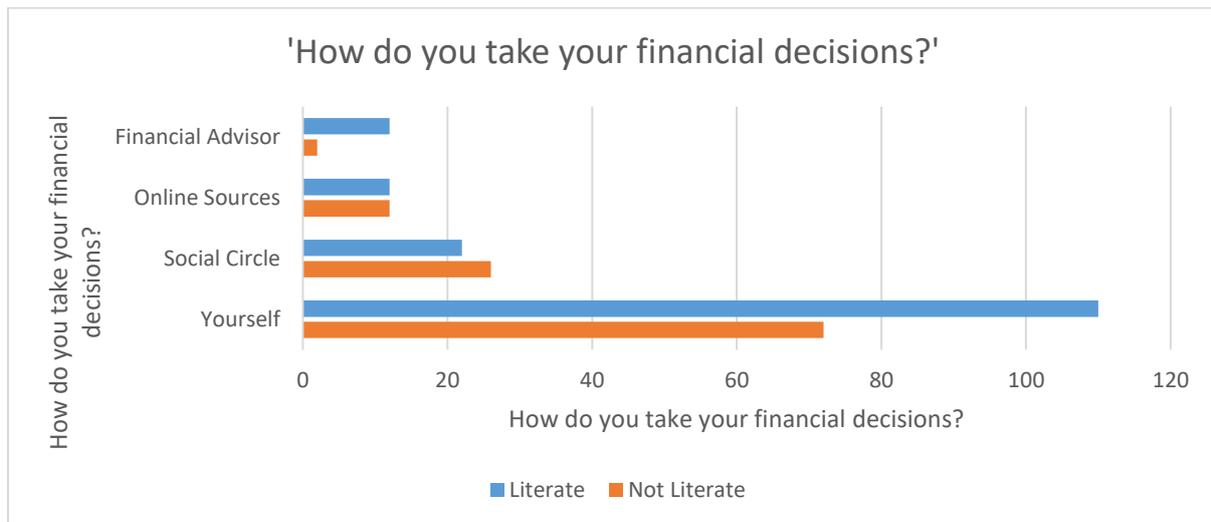
The regression analysis in Table 3 put more light on the importance of financial literacy concepts. The regression summary reveals that the financial literacy for all the financial concepts is strongly and positively associated with education and the results are statistically significant. The regression results also finds a significantly positive association of literacy with age.

Summarily, the study find that the number of correct responses across gender and occupation is quite stable, the results of regression model in the table 3 also confirms to the findings. There is no difference across gender with regard to financial literacy within our sample. This may result from the fact that the education level of the female respondents in our sample is quite high. However, the study finds a position correlation between the education level and the financial literacy of respondents, the table 3 reported statistically significant differences across education level with an increase in financial literacy with the increase in education level.

It is observed from Table 4 that most (approx. 67.91%) of the respondents take their own financial decision and out of those approx. 60.44% are literate whereas approx. 39.56% are not literate. Being not literate about the financial concepts and taking financial decisions by themselves can lead them into financial stress. 48 out of 268 respondents take their financial decision after consulting in the social groups, being 22 of such respondents financially literate themselves. There were 24 respondents who have been trusting on the advice provided at online platforms (which may be dubious), out of which 50% are not literate. There were very few respondents who seek the help of a financial advisor, a minute 5.22% out of total respondents. Observing that the respondents who seek such advice from financial advisors are mostly financially literate themselves.

**Table 4 Responses to Sources of Financial Decision**

	Literate	Not Literate	Grand Total
Financial Advisor	12	2	14
Online Sources	12	12	24
Social Circle	22	26	48
Yourself	110	72	182
<b>Grand Total</b>	<b>156</b>	<b>112</b>	<b>268</b>



## 7. Results

The study shows that the literacy rate is Low for the state of Haryana, with an overall literacy of financial concepts at 58.21%. the researchers found out that only 68.66% of the respondents were aware of the savings concept whereas 86.57% knew the concept of time value of money. The study shows that the concept of inflation is least known to the respondents from the state at only 45.52% of respondents answered the question right. The responses for the question testing the concept of diversification of the investment risk were correct at 66.04% only. The knowledge of borrowing risk was reported very differently as compared to other concepts, where 95.15% of respondents answered the question right.

## 8. Conclusion

It can be said from all the analysis that the financial literacy in the state of Haryana is not in a good shape. More and more financial awareness programs are required in the state for the financial well-being of the population. Researchers have seen an approximation of 58.21% of the respondents turn out to be financial literate only. The savings concept has been inculcated in the Indian culture but looking at the responses it seems as the individuals in the state are not saving for their future as they should be. It is observed that more than 85% respondents would prefer an amount of Rs 1,00,000 now rather than Rs. 1,05,000 a year after. This shows individuals are aware

enough that they can increase their Rs 1,00,000 more than 5% in a year. It is a good sign but as the analysis progressed the inflation concept was giving a conflicting response where respondents if aware of time value shall be aware of inflation also. The Diversification of portfolios is still not been preferred by a huge percentage portraying the individuals are not mitigating their risk on the risky investments they put their hard earned money in. A good response to the borrowing risk questing was observed from the respondents of the state where they were asked how much percentage of their income would be covers for the EMIs, the 95% of respondents show a risk averse behaviour. This shows the less probability of NPAs of banks from the state of Haryana. Further studies can be conducted classifying the demographics in particular and analysing the financial literacy on different aspects in the state of Haryana.

## 9. References

- Agarwalla, S. K., Barua, S. K., Jacob, J., & Varma, J. R. (2015). Financial Literacy among Working Young in Urban India. *WORLD DEVELOPMENT*, 67(2013), 101–109.  
<https://doi.org/10.1016/j.worlddev.2014.10.004>
- Almenberg, J., & Säve-Söderberg, J. (2011). Financial literacy and retirement planning in Sweden. *Network for Studies on Pension, Aging and Retirement*. <https://doi.org/10.1108/RBF-05-2020-0110>
- Bhushan, P., & Medury, Y. (2020). Financial Literacy and its Determinants. *International Journal for Research in Applied Science and Engineering Technology*, 8(7), 1174–1179.  
<https://doi.org/10.22214/ijraset.2020.30445>
- Chan, K., & McNeal, J. U. (2004). Children's understanding of television advertising: A revisit in the chinese context. *Journal of Genetic Psychology*, 165(1), 28–36.  
<https://doi.org/10.3200/GNTP.165.1.28-36>
- Choudhary, K., & Kamboj, S. (2017). A Study of Financial Literacy and Its Determinants: Evidence from India. *Asian Journal of Accounting Perspectives*, 10(1), 52–72.  
<https://doi.org/10.22452/ajap.vol10no1.4>
- Cole, S., Sampson, T., & Zia, B. (2011). Prices or Knowledge? What drives the demand for financial services in developing countries. *Harvard Business School Working Paper No. 09-117, LXVI(6)*, 1933–1967.
- Danes, S. M., & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Journal of Financial Counseling and Planning*, 18(2), 48–60.
- Duflo, E., & Saez, E. (2002). Participation and investment decisions in a retirement plan: The influence of colleagues' choices. *Journal of Public Economics*, 85(1), 121–148.  
[https://doi.org/10.1016/S0047-2727\(01\)00098-6](https://doi.org/10.1016/S0047-2727(01)00098-6)
- Jadhav, J. (2020). A Study on Measuring Individual Components of Financial Literacy in India. *Indian Journal of STEAM*, 01(01), 11–15.
- Klapper, L., & Panos, G. (2011). Financial Literacy and Retirement Planning: The Russian Case. In *The CER Working Paper Series on Entrepreneurship and Innovation Financial Literacy and Retirement Planning* (Entrepreneurship and Innovation).
- Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: An overview. *Journal of Pension Economics and Finance*, 10(4), 497–508. <https://doi.org/10.1017/S1474747211000448>
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- Lusardi, A., & Mitchell, O. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, 42(1), 35–44.

<https://doi.org/10.2145/20070104>

- Lusardi, A., & Tufano, P. (2009). DEBT LITERACY, FINANCIAL EXPERIENCES, AND OVERINDEBTEDNESS. In *NATIONAL BUREAU OF ECONOMIC RESEARCH* (Vol. 2, Issue 5). ???
- Mitchell, O. S., & Lusardi, A. (2006). Financial Literacy and Planning: Implications for Retirement Well-being. In *Financial Literacy: Implications for Retirement Security and the Financial Marketplace*. <https://doi.org/10.1093/acprof:oso/9780199696819.003.0002>
- OECD/INFE. (2018). OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion. *Oecd, March*, 1–47. <https://www.oecd.org/financial/education/2018-INFE-FinLit-Measurement-Toolkit.pdf>
- Poonam, & Chaudhry, A. (2017). Index Of Financial Inclusion In Haryana ( Inter-District Comparision ). *International Journal of Innovative Research and Advanced Studies*, 4(7), 120–123.
- Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs*, 44(2), 276–295. <https://doi.org/10.1111/j.1745-6606.2010.01169.x>
- Sevim, N., Temizel, F., & Sayilir, Ö. (2012). The effects of financial literacy on the borrowing behaviour of Turkish financial consumers. *International Journal of Consumer Studies*, 36(5), 573–579. <https://doi.org/10.1111/j.1470-6431.2012.01123.x>
- Singh, S. (2020). A Ranking Approach for Indian States on the Basis of Covariates of Financial Literacy. *International Journal in Commerce, IT and Social Sciences*, 7(1), 1–16.
- Volpe, R., Chen, H., & Pavlicko, J. (1996). Personal investment literacy among college students: A survey. *Financial Practice and Education*, 6(2), 86–94.