



An Empirical Investigation of Financial and Tax Literacy among Graduates in the State of West Bengal: A Comprehensive Analysis of Inter-Relation

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DOI : <https://doi.org/10.55248/gengpi.5.1024.3108>

ABSTRACT:

Financial Literacy (FL) is something that an educated human illustrates and helps not only his wealth to grow but also the nation to progress. FL and TL can be considered two important determinants of economic development. India's GDP contribution from the service sector is sufficiently high i.e., 53% with only 23% workforce, whereas the manufacturing industry is contributing low (25.92%) as compared to their contribution in other economies. Investment comes from saving done by the earning members of the society as well as taxes collected by the government. Their degree of financial and TL will play a significant role in achieving the goal of a 5 trillion-dollar economy. Today, we have already crossed half the mark as decided. This paper aims to evaluate the progress and change that can be noticed among the educated class of Indian society in terms of their finances as well as TL. For the said purpose, the authors have used descriptive statistics and co-relation and co-efficient values. The results were not very much astonishing as rate of financial and TL in even graduates is very low, especially in the rural area. Knowledge of mathematics is not a significant attribute of FL, whereas TL is a stronger variable of FL as compared to the traditional four parameters.

Keywords: FL, TL, planning commission, and Income tax return.

1. INTRODUCTION

FL is one of the most important concepts to be discussed after early 2000. It is a combination of 5 parameters involving awareness, knowledge, skill, attitude, and behaviour, which are necessary for making sound financial decisions and ultimately achieving individual well-being. FL gained momentum in early 2000 around the world when the global organization "OECD" took the initiative and presented its first report on FL in 2006 (Arthasad, n.d.). In the report, OECD identified FL as the most prominent key factor for preventing financial risk and financial independence. The definition of FL reflects not only financial reasoning but also focuses on financial behavior.

FL improves the level of understanding of the financial product and helps to take the better financial decision over time (Singhal & Verma, 2021). The term has been defined in a different sense, sometimes it means one's skill relating to numbers known as mathematical FL. When someone shows skill and attribute of investment then the same can be termed as investment FL and so on (Author et al., n.d.; Joharudin, 2023). But as explained by many financial experts, FL is a cognitive understanding of financial components and proficiency in budgeting, investing, borrowing, taxation, and personal financial management (Koretskaya-Garmash, 2017a). We must not forget that growth is not the only measure of development (Lecturer, 2019).

FL is the ability to make informed judgments and to take effective decisions regarding the use and management of money (Online et al., 2006; Veena et al., 2022). Financially literate individuals make informed decisions about their money and minimize their chance of being misled on financial matters (Dr. Puneet Bhushan and Mr. Yujulu Medury, May 2013).



Fig 1: Conceptual framework of Financial Literacy

India is a country where we noticed around 76% literacy in terms of education but only 24% FL. The concept was defined as a process by which a probable investor develops their understanding of the financial product, concept, and risk assessment and a skill or confidence to become more aware of risk and opportunities.

This paper has been undertaken to answer the following questions.

R1: How a, b, c, d and e influences FL in particular area of India?

R2: Does TL exhibit/facilitate better financial judgement?

This study has been divided into following parts: Second segment of this study consist of review of literature, research gap and objectives. The third segment outlines research methodology, research design, sample size, conceptual framework, and type of sampling. Fourth segment comprises data analysis and interpretation, hypothesis testing, and discussion. Managerial implication, limitations, future scope, and conclusions mention in the last segment(Rasool & Ullah, 2020; Shanmuganathan, 2020).

2. OBJECTIVE OF STUDY

Many researchers have worked in the selected area and their research concludes that India is having not only low educational literacy but also a very low financial as well as low TL. Every study starts with an objective, so this cannot be an exception. The study started with the objective to know the condition of Indian literacy in basic finance (Ahmaddien et al., 2019). So, this study of West Bengal is aimed to fulfil the following objectives: -

- a) To determine the degree of FL and TL (knowledge, attribute, skill, and behavior)
- b) To determine the relationship between financial and TL.

3. REVIEW OF LITERATURE

A literature review is a very important stage of every successful research work. So, to fulfil the objective of the study, several research papers were screened(Harahap et al., 2022; V. Seno & -, 2024). A report (report, 2014) was prepared with a help of a survey to study or evaluate the impact and degree of FL and financial inclusion in India. Based on the cluster sampling technique, the report tried to evaluate the same. 20% of districts of the entire India were distributed across each Social Culture Region (SCR) in proportion to their population as reported in the Census report of 2011. Within an SCR, the districts were selected using Probability Proportional to Size (PPS) methodology. The sample mainly comprises household sectors selected based on the right-hand standard random route with a 1:1 gender ratio. India is a country with a good traditional and comparative good FL score, but again as saving is also to be considered as earning, therefore TL score should be evaluated.

On the other hand, Lewis (Lewis, 1982) studied the impact of tax knowledge and attitudes of an individual on completing tax returns. He aimed to study the impact of an increase in tax knowledge on tax compliance behaviors. He found that there is insufficient knowledge about tax regulations among the population.

Eriksen and Fallan (Eriksen, 1996), in this study, the author found that fiscal knowledge is correlated with persons' attitudes towards taxation. The paper suggested that tax behaviors can be improved by a better understanding of tax laws. If Taxpayer is given better tax knowledge to improve tax ethics and compliance behavior, then the collection of revenue and development both can be achieved (Bikas et al., 2013) (Rina Dwiarti et al., 2024).

In personal financial planning, tax management plays a very important role (Shefrin, 2009). An individual should have deep knowledge of various aspects of taxes and tax policies, which would help him to understand how much he can save even after paying taxes or by using rules framed by the authorities of taxes (Jain & Goyal, n.d.). An attempt was made through a paper written by Dr. Punnet Bhushan (Dr. Puneet Bhushan and Mr. Yujulu Medury, May 2013) to determine the TL level of salaried individuals based on various demographic and socio-economic factors. The findings of the study suggest that the overall TL level of respondents is not very high, and the government should adopt more aggressive approaches to educate taxpayers, thereby raising the level of TL among them. In this paper, only people living in the state of Himachal Pradesh where only 74 lakhs people resides, therefore this particular outcome may not take a generalized form.

In another research paper in the year 2014 (Jariah M, 24th January 2014), the researchers analysed the borrowing habits of students and then recommended the use of the better educational practice of finance to educate them to get rid of financial burden. The research focuses on university-related students, which can be the future but not the correct picture of FL (Kislingorová & Špička, 2022).

Sumit and Mukhtar (Mukhtar Hossain., Vol-8/March 2021) have illustrated the degree of FL in the different districts of West Bengal. The research was based on secondary data from the financial Inclusion Insight program database (Adil et al., 2022). The paper found people from the district of Kolkata, Howrah, Birbhum, and Paschim Midnapore to be moderately literate whereas that of the other districts were found to be with a low level of FL (Ciemleja & Kozlovskis, n.d.).

After studying the above-mentioned papers and thesis, some gaps were identified. Although several works have been carried out in this area, somehow very few works have created a link between FL and TL. Whenever we think of FL, an equal weight should be given to TL, as saving is also considered as earning as per different financial theories

4. RESEARCH DESIGN

Research design is the framework of research techniques, methods, type of data used, and method of its collection used by a researcher. This research idea allows the researcher to sharpen his research work and make the same value added to society as a whole. Similarly in this research, a deep and proper focus has been given to making it societal.

4.1 Data Collection:

The research has been conducted by collecting primary data from major 10 districts in the state of West Bengal as per the latest West Bengal Literacy rate using a specially drafted questionnaire amongst the graduate population. The sample size consists of 172 responses based on a random basis by keeping a having minimum graduation level of educational qualifications (Dolan et al., 2012).

4.2 Method of research:

After selecting the sample out of the total population based on population to sample size technique, around 172 sample information were taken into consideration and different statistical tools have been used. Descriptive analysis of demographic character of respondents and Chi-square test of independence determines the association between categorical variables (i.e., whether the variables are dependent or independent of one another), so the test has been conducted to know the relation or association between financial and TL. The sample size was selected scientifically using a very popular formula.

$$n = N * [Z^2 * p * (1-p)/e^2] / [N - 1 + (Z^2 * p * (1-p)/e^2)]$$

For the collection of primary data, a questionnaire was divided into three parts. The first part consists of only socio-demographic factors like Age (Hasler & Lusardi, 2017a), gender (Pandya, 2019), and location. Based on the following literacy rate table, people residing or belonging to only the top 10 districts of West Bengal were considered with an assumption that FL depends on basic educational literacy. The second part consists of questions for evaluating financial knowledge, financial attribute, financial skills, and financial behavior. In the third part, questions were framed to understand TL (Koretskaya-Garmash, 2017b). Therefore, questions were framed based on tax knowledge, tax attribute, tax skill, and tax behavior. The paper aimed at knowing whether the sample subjects can answer the concepts like:

- a) Whether they have an idea about financial products?
- b) Whether they can select a financial product rationally?
- c) Whether subjects know the basic concept of compounding, interest, ROI, etc?
- d) Whether they earn and save?
- e) Whether they have the habit of budgeting before spending?

- f) Do they know the basics of the Income Tax Act 1961?
- g) Can they estimate their Taxable income or are purely rely on employers' calculations under FORM 16?
- h) Do they know the skill of Tax management and Tax Savings?
- i) Do the respondents' pay taxes or file ITRs regularly?

For the said purposes, the Districts of West Bengal are selected based on the following data as collected from the official website of India Census published in the year 2022.

Table 1

Descriptive stats showing literacy distribution in the state of West Bengal

West Bengal Literacy Rate among Top 10 District				
S.No.	District Name	Population	Literates	Literacy
1	Purba Medinipur	50,95,875	39,23,194	87.02%
2	Kolkata	44,96,694	35,88,137	86.31%
3	North 24 Parganas	1,00,09,781	76,08,693	84.06%
4	Howrah (Haora)	48,50,029	36,05,206	83.31%
5	Hooghly	55,19,145	40,78,388	81.80%
6	Kalimpong (Darjeeling)	18,46,823	13,15,585	79.56%
7	Paschim Medinipur	59,13,457	40,78,412	78.00%
8	South 24 Parganas	81,61,961	55,31,657	77.51%
9	Bardhaman	77,17,563	52,47,208	76.21%
10	Nadia	51,67,600	34,80,555	74.97%
Literacy rate in West Bengal				76.26%

Source: India Census (Census, 2022)

In Table 2 a detailed description of the variables used in the study and the expected relationship of the independent variables with the FL score is presented (Suresh G, 2024).

Table 2

Description of the Variables and Expected Relationship

Variables	Description	Expected Relationship
FL Score (FL_SC)	(FK + FA + FB + FS)	NA
Marital status (MS)	Single=0; Married=1	+
Age	Age in years in 2022	+
Education (Edu)	No formal education=0 Higher secondary education=1 Graduation=2 Post-Graduation = 3 Above = 4	+
Gender (Gen)	Male=2; Female=1; Prefer not to tell=0	+/-
Income Range	0= less than 2,50,000 1= 2,50,001-5,00,000	+

	2=5,00,001-10,00,000 3=above 10,00,000	
Location (Loc)	Rural=0; Urban=1	+
Financial Condition (FC)	1= Do you have money for a basic necessity 2= Do you have money for comfort goods? 3= Are you able to buy the luxury item for your home 4= Are you able to differentiate between necessity, comfort, and luxury? 5= We can afford to buy whatever we want	+
TL	0= Never Filed Income Tax Return 1 = Files ITR but never able to claim the refund. 2= Able to take the refund and use different rebates 3 = Always files ITR 4 = Invests money based on ROI only 5 = Invests money considering after-tax ROI	+

Source: Author's compilation

1. Analysis and Finding

Table 3 reflects the demographic profile of the respondents. Out of the total number of 172 valid respondents 88 (51.16%) and 84 (48.84%) were male and female respectively. The respondents were almost symmetrically distributed across all age groups. Nearly 20% of respondents were found to be belonging to the 15 to 24 age group, 24% were between 25 to 34 years of age, 22% fell within the 35 to 44 age bracket, 16% pertains to 45 to 54 years of age and rest (18%) were aged above 55 years. 74 (43.02%) respondents reported themselves as married and the rest 56.98% were single.

Table 3

Demographic Profile of the Respondents

Variables		Frequency	Percentage
Marital Status	Single	98	56.97
	Married	74	43.03
Education	No formal education	01	00.58
	Final year Students	07	04.07
	Graduate	19	11.05
	Post-Graduate	145	84.30
Gender	Male	88	51.16
	Female	84	48.84
Age Group	15-24	60	34.88
	25-34	34	19.77
	35-44	42	24.42
	45-54	26	15.12
	55 and above	10	05.81
Financial Skill	Does not own smart phone	13	07.55
	Own smart phone	159	92.24

Location	Rural	64	37.20
	Urban	108	62.79
Financial Condition (FC)	Do you have money for necessity.	04	02.32
	Do you have money for comfort goods.	18	10.46
	Are you able to buy luxury item for you home.	45	26.16
	Are you able to differentiate between necessity, comfort, and luxury?	28	16.28
	We can afford to buy whatever we want	77	44.77
Tax behavior	Never Filed Income Tax Return	61	35.46
	Always files ITR	111	64.54
Tax Skill	Able to take refund when filed return	100	58.14
	Files ITR but never able to claim the refund	72	41.86
Tax Knowledge	Invests money based on ROI only	119	69.19
	Invests money considering after-tax ROI	53	30.81

Source: Author's compilation

The overall level of education of the respondents was found to be dismal as nearly 0.58% (1) respondents did not have any formal education and approximately 4.07% of the respondents were found to be in the final year of graduation, 11.05% of the respondents had graduation and a large fraction (84.3%) of the total respondents had post-graduate or above. Most of the respondents (62%) across all the districts were from an urban background and the rest of the respondents are from the rural area. The financial condition of many of the respondents was found to be very satisfactory. Only, 2.32% of the respondents reported that they "don't have money for necessities". 10.46% of respondents revealed that they have money for comfort goods. 26.16% declared that they can't buy luxury items for their home. Approximately, 44.77% of the respondents from West Bengal were from "above the poverty line" as they can everything.

On the other hand, out of the entire population of 172 respondents, 61 (35.46%) have tax Behaviour, 119 (69.19%) have tax knowledge, and only around 72 (41.86%) had tax skills in them. The result is satisfactory as compared to results found by other researchers in other parts of India (Dr. Puneet Bhushan and Mr. Yujulu Medury, May 2013) (Goyal et al., 2013)

Table 4

FL Level in West Bengal

FL Level		Low	Medium	High
West Bengal	Count	32	93	47
	%	18.6%	54.06%	27.32%
Urban Districts	Count	08	19	40
	%	04.65%	11.05%	23.25%
Rural Districts	Count	24	74	07
	%	13.95%	43.02%	35.46%

Source: Author's computations

The outcome of the study (Table 3) highlighted the dismal state of FL in different districts of West Bengal irrespective of their condition in terms of access to financial services. Low level of FL was found in 15 (79%) out of 19 districts of West Bengal (Table A.1 in Appendix). The FL level of the respondents belonging to Kolkata, Howrah, Birbhum, and Paschim Midnipur was found to be medium. Astonishingly, respondents from none of the districts were found to possess a high level of Literacy in terms of financial knowledge and skill (Choudhary & Ahuja, 2021; Sundarasan et al., 2023). The overall state of FL also emerged to be low for West Bengal as a whole. The average FL score was found to be highest for Kolkata followed by Howrah, Birbhum, and Paschim Midnipur. The poor state of FL is like the observations made by researchers across the globe including India (Adil et al., 2022; Dewi, 2022; Wijayanto et al., 2023).

Table 5

Determinants of FL

Variables	West Bengal		Urban Districts		Rural Districts	
	Coefficients	t-value	Coefficients	t-value	Coefficients	t-value
Age	.0000571	0.22	-.0000144	-0.04	-.0001317	-0.38
MS	.0275644 ^a	2.62	.0324353 ^b	2.20	.0247676 ^c	1.67
Edu	.0839681 ^a	18.15	.084981 ^a	12.94	.0791197 ^a	11.85
Gen	.0652365 ^a	9.49	.062734 ^a	6.30	.0687811 ^a	7.31
FS	.0239052 ^b	1.98	-.0032473	-0.21	.0534537 ^a	2.84
LOC	-.0026072	-0.37	-.0206872	-2.01	.004655	0.46
FC	.0189013 ^a	4.32	.027577 ^a	4.73	.010762 ^c	1.65
TL	.028918 ^a	6.32	.029572 ^a	6.09	.012061 ^c	4.87
Constant	.1153221 ^a	6.62	.1193987 ^a	5.02	.1349955 ^a	5.19
χ^2	684.45 ^a		341.87 ^a		314.87 ^a	
N	172		113		59	

a, b, and c denote significance at 1%, 5%, and 10% levels respectively

Source: Author's computation

6. Conclusion and limitation:

A modest effort has been made to estimate the financial and TL among college students and their relatives leaving or residing in West Bengal. With the help of data collected and analyzed it was found the targeted population has somehow a moderate level of financial but somehow not significant level for TL (Bhatia et al., 2020; Hasler & Lusardi, 2017b; Weixiang et al., 2022).

As a part of the limitation, it can be noted that West Bengal is not the top-rated state as per educational literacy is concerned. Therefore, alone this cannot be an area of study. For a generalized viewpoint, we should have considered a larger area or more states. Again, the sample size mainly comprises of commerce and management students for clearer picture a sample with diversified domain shall be studied.

Under the content approach, a curriculum for schools, colleges, and universities will be created along with certain training for the young generation regarding financial education (Lusardi & Mitchell, 2009; Ramakrishnan, n.d.). So that they can acquire knowledge, attitude, skill, awareness, and Behaviour not only concerning financial products but also with to taxation. The pathway will try to develop capacity among different intermediaries which are directly or indirectly involved in providing financial services. Not only this but a community-led model will also be developed for FL through an appropriate communication strategy.

In this study, the authors have selected certain areas of the state of West Bengal. Though the literacy rate of the state of West Bengal is above the average literacy rate of the country but its not among the top literate states of the country. Again, FL indirectly or direct influences the investment pattern of the subjects but that prospect of the study has not been considered as the authors only wanted to analysis the factors affecting FL and TL and to find measures to increase the same among the people of West Bengal.

References:

- Adil, M., Singh, Y., & Ansari, M. S. (2022). How financial literacy moderate the association between behaviour biases and investment decision? *Asian Journal of Accounting Research*, 7(1), 17–30. <https://doi.org/10.1108/AJAR-09-2020-0086>
- Ahmaddien, I., Abdi, M. N., Trisnawati, E., & Ratnawati, R. A. (2019). *Determinants of Students Financial Literacy*.
- Arthasrad, L. I. (n.d.). *Journal for Studies in Management and Planning Measuring Financial Literacy of University Academics*. <https://ssrn.com/abstract=3205370http://edupediapublications.org/journals/index.php/JSMaP/>
- Author, C., Breitbart, E., Walstad, W. B., Editor, B., Wuttke, E., Seifried, J., & Schumann, S. (n.d.). *Chapter Title: Financial Literacy and Financial Behavior among Young Adults in the United States Book Title: Economic Competence and Financial Literacy of Young Adults Book Subtitle: Status and Challenges*. <http://usfinancialcapability.org/>
- Bhatia, A., Chandani, A., & Chhateja, J. (2020). Robo advisory and its potential in addressing the behavioral biases of investors — A qualitative study in Indian context. *Journal of Behavioral and Experimental Finance*, 25. <https://doi.org/10.1016/j.jbef.2020.100281>
- Bikas, E., Jurevičienė, D., Dubinskas, P., & Novickytė, L. (2013). Behavioural Finance: The Emergence and Development Trends. *Procedia - Social and Behavioral Sciences*, 82, 870–876. <https://doi.org/10.1016/j.sbspro.2013.06.363>
- Choudhary, M. S., & Ahuja, H. (2021). Inclusion Of Psychological Factors In Financial Theories: Transformation From Traditional Finance To Behavioral Finance. In *Volatiles & Essent. Oils* (Vol. 8, Issue 4).
- Ciemleja, G., & Kozlovskis, K. (n.d.). *Assessment of individual Financial Literacy level depending on respondent profile*.
- Dewi, V. I. (2022). How do demographic and socioeconomic factors affect financial literacy and its variables? *Cogent Business and Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2077640>
- Dolan, P., Elliott, A., Metcalfe, R., & Vlaev, I. (2012). Influencing financial behavior: From changing minds to changing contexts. In *Journal of Behavioral Finance* (Vol. 13, Issue 2, pp. 126–142). <https://doi.org/10.1080/15427560.2012.680995>
- Goyal, N., Kumar, S., & Rathore, A. P. S. (2013). “Financial Literacy and Behavioural Biases-A Study of Indian Investors” Submitted in fulfillment of the requirement for the degree of DOCTOR OF PHILOSOPHY Under Guidance of DEPARTMENT OF MANAGEMENT STUDIES MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR.
- Harahap, S., Thoyib, A., Sumiati, S., & Djazuli, A. (2022). The Impact of Financial Literacy on Retirement Planning with Serial Mediation of Financial Risk Tolerance and Saving Behavior: Evidence of Medium Entrepreneurs in Indonesia. *International Journal of Financial Studies*, 10(3). <https://doi.org/10.3390/ijfs10030066>
- Hasler, A., & Lusardi, A. (2017a). *The Gender Gap in Financial Literacy: A Global Perspective | I The Gender Gap in Financial Literacy: A Global Perspective*. www.gflec.org
- Hasler, A., & Lusardi, A. (2017b). *The Gender Gap in Financial Literacy: A Global Perspective | I The Gender Gap in Financial Literacy: A Global Perspective*. www.gflec.org
- Jain, M. A., & Goyal, N. (n.d.). *Sachetas BEHAVIOURAL FINANCE: A BIBLIOMETRIC ANALYSIS USING SCOPUS DATABASE*. <https://orcid.org/0000-0001-8239-5621>
- Joharudin, A. (2023). UNDERSTANDING THE NEXUS OF FINANCIAL LITERACY AND BEHAVIORAL BIASES IN INVESTMENT DECISIONS. *Finansha: Journal of Sharia Financial Management*, 4(2), 176–188. <https://doi.org/10.15575/fjsfm.v4i2.30490>
- Kislingerová, S., & Špička, J. (2022). Factors Influencing the Take-Up of Agricultural Insurance and the Entry into the Mutual Fund: A Case Study of the Czech Republic. *Journal of Risk and Financial Management*, 15(8). <https://doi.org/10.3390/jrfm15080366>
- Koretskaya-Garmash, V. A. (2017a). Taxation Awareness and its Impact on Financial Literacy. *Journal of Tax Reform*, 3(2), 131–148. <https://doi.org/10.15826/jtr.2017.3.2.036>
- Koretskaya-Garmash, V. A. (2017b). Taxation Awareness and its Impact on Financial Literacy. *Journal of Tax Reform*, 3(2), 131–148. <https://doi.org/10.15826/jtr.2017.3.2.036>
- Lecturer, G. (2019). Issue 6 www.jetir.org (ISSN-2349-5162). In *JETIR1907D85 Journal of Emerging Technologies and Innovative Research* (Vol. 6). JETIR. www.jetir.org
- Lusardi, A., & Mitchell, O. S. (2009). *NBER WORKING PAPER SERIES HOW ORDINARY CONSUMERS MAKE COMPLEX ECONOMIC DECISIONS: FINANCIAL LITERACY AND RETIREMENT READINESS*. <http://www.nber.org/papers/w15350>
- Online, R., Marcolin, S., & Abraham, A. (2006). *Financial literacy research: current literature and future opportunities*. <https://ro.uow.edu.au/commpapers/223>
- Pandya, S. G. (2019). “Financial Literacy Among the different Stakeholders of Higher Education in Latur District-A Study of Commerce and Management Colleges.”

- Ramakrishnan, R. (n.d.). *Swabhiman-Inclusive Growth and Beyond 2 nd & 3 rd June, Mumbai India (i) Title of submission: Financial Literacy-The Demand Side of Financial Inclusion*.
- Rasool, N., & Ullah, S. (2020). Financial literacy and behavioural biases of individual investors: empirical evidence of Pakistan stock exchange. *Journal of Economics, Finance and Administrative Science*, 25(50), 261–278. <https://doi.org/10.1108/JEFAS-03-2019-0031>
- Rina Dwiarti, -, Shadrina Hazmi, -, Eno Casmi, -, Tri Harsini Wahyuningsih, -, & Wahyu Indah Mursalini, -. (2024). Analysis of Financial Literacy and Financial Behavior Toward Investment Decisions on Millennial: Technological Advancement as A Moderating Variable. *International Journal of Scientific Research and Management (IJSRM)*, 12. <https://doi.org/10.18535/ijrm/v12i01.em09>
- Shanmuganathan, M. (2020). Behavioural finance in an era of artificial intelligence: Longitudinal case study of robo-advisors in investment decisions. *Journal of Behavioral and Experimental Finance*, 27. <https://doi.org/10.1016/j.jbef.2020.100297>
- Shefrin, H. (2009). Behavioralizing finance. *Foundations and Trends in Finance*, 4(1–2), 1–184. <https://doi.org/10.1561/05000000030>
- Singhal, M., & Verma, A. (2021). *AN ANALYTICAL STUDY OF TAXATION LITERACY AMONG INDIVIDUALS*. <https://doi.org/10.36713/epra2012>
- Sundarasan, S., Rajagopalan, U., Kanapathy, M., & Kamaludin, K. (2023). Women’s financial literacy: A bibliometric study on current research and future directions. In *Heliyon* (Vol. 9, Issue 12). Elsevier Ltd. <https://doi.org/10.1016/j.heliyon.2023.e21379>
- Suresh G. (2024). Impact of Financial Literacy and Behavioural Biases on Investment Decision-making. *FIIB Business Review*, 13(1), 72–86. <https://doi.org/10.1177/23197145211035481>
- V. Seno, E. J., & -, -. (2024). The Influence of Financial Literacy and Saving Capacity to the Saving Behavior of Employees in the Municipal Government of Hermosa, Bataan. *APJAET - Journal Asia Pacific Journal of Advanced Education and Technology*, 3. <https://doi.org/10.54476/apjaet/39374>
- Veena, S., Arpana, M. S., & Bharath, T. R. (2022). study on financial literacy among college students. *International Journal of Health Sciences*, 9703–9710. <https://doi.org/10.53730/ijhs.v6ns2.7525>
- Weixiang, S., Qamruzzaman, M., Rui, W., & Kler, R. (2022). An empirical assessment of financial literacy and behavioral biases on investment decision: Fresh evidence from small investor perception. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.977444>
- Wijayanto, A., Ridloah, S., Abiprayu, K. B., Permana, M. V., & Rafinda, A. (2023). *Financial Literacy and Behavioral Bias of Individual Investors: Empirical Research in Indonesia* (pp. 339–347). https://doi.org/10.2991/978-2-494069-35-0_42