The Financial Literacy of College Students: Evidence From India

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ABSTRACT

This article attempts to assess the financial literacy of college students in India through the application of a questionnaire. The OECD/INFE Toolkit for Measuring Financial Literacy was employed to collect primary data from a random sample of 400 active university students, using financial behavior, financial knowledge, and financial attitude as variables. Data was analyzed by descriptive statistics using SPSS. This study finds that the Indian students surveyed have low financial literacy, with a score of 11.82 on a scale of 21. Students have very low awareness of compound interest, the erosion of buying power due to inflation, the benefits of diversification, and the use of credible information for financial decision-making. Financial literacy is indispensable for making proper financial decisions and financial education is important for students. Increased financial literacy will result in less financial concern and greater financial wellbeing.

Keywords: Financial literacy, Financial wellbeing, College students.

INTRODUCTION

Humans live in a world full of choices and uncertainty. People tend to collect and evaluate existing information before deciding on a product or service. Curiosity to know more about products or services can help individuals make better decisions—yet people are not often interested in learning about financial products.

The Indian economy has grown in all sectors in recent years. After liberalization, privatization, and globalization, India has developed in its standard of living, literacy level, savings, income, investments, etc. The economic behavior of individuals is important, for while individuals are affected by the economic changes happening around them, their own behavior influences these broader systemic changes also.

Cole & Fernando (2008) define financial literacy and describe ways to meaningfully measure it. They claim that financial literacy is indispensable for making informed financial decisions and stress that the financial literacy of an individual can be predicted by looking at their mathematics test scores (addition, subtraction, multiplications, and division). For its part, the OECD and its International Network on Financial Education (INFE) define financial literacy as consisting of: "A combination of awareness, knowledge, skill, attitude and behaviors necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (OECD INFE, 2011).

Basic financial ideas need to be known and understood and the capacity to apply this knowledge to financial decisions is part of financial literacy. To survive in a world full of dreams, the conversion financial literacy is mandatory. Financial literacy is a major quality with the power to change individuals' lives and hence bring change to a country's economic system (Ersoy & Özen, 2022). Innovation in new products and services has made financial markets complex as well as rewarding. To take proper financial decisions that address one's needs at any particular time, financial literacy is required, and so it has become of interest to many policymakers and government organizations.

The three important terms of income, savings, and investments, make up the key success factors that provide investors with wings to fly in the sky. A proper combination of personal financial literacy and sound financial decisions can create wonders in the financial system of a country. To make wise investment decisions, one needs good evaluative and decision-making skills, assisted by financial literacy.

Much research has been done on the financial literacy of college students in countries like United Kingdom, United States, Indonesia, Germany, and Poland (Swiecka et al., 2020). But very little work has been done on financial literacy in India. This study aims to provide an understanding of the present financial literacy of college students in India in order to assist academics and policymakers intervene to increase the financial literacy of college students.

LITERATURE REVIEW

Garman et al. (1996) suggested that if employees gained financial guidance and knowledge to manage their finances wisely, poor financial decisions could be corrected or avoided. Financially literate people are better able to save for retirement (Garman, 1997) because they are more likely to plan for it, which puts them at a more advantaged position in their older life. Increasing financial literacy might be advantageous for thinking about retirement savings strategy.

Bauer et al. (2000) concluded that financial literacy helps students invest and save money, manage debt, manage monetary and financial affairs, and live within their means. Sarah (2009) studied the interconnectedness of financial behavior, financial knowledge, and cultural values, documenting that a positive correlation exists between financial knowledge and financial behavior. The European Microfinance Network (2010) states that financially literate individuals have a good understanding about how to cope with and manage risk through methods like insurance. A sound ability to judge risk leads to purchasing insurance and to other activities such as hedging, which reduces the burden to the financial system.

Wagner (2014) suggested that risk aversion can affect how a person behaves financially. The implication is that financial behavior may be driven more by an individual's ability to take on financial risk rather than their ability to confront financial risk. Mahmood (2011) argues that financial literacy skills enable individuals to make informed investment decisions concerning their investment, minimizing the chances of investors being misled about financial matters. Gaurav & Singh (2012, p. 358-380) conducted a study on assessing financial aptitude, cognitive ability, and debt literacy. They stressed that "a better understanding of financial literacy can lead to an inclusive financial system that is sensitive to rural households' cognitive and informational limitations."

West (2012) found that there is very little evidence to show an immediate connection between education, financial literacy, and financial behavior, revealing that although an individual may have high levels of awareness of the aspects of personal financial literacy, this does not always result in good financial behavior. Bhushan & Medury (2014) studied the interrelationship between financial behavior, financial knowledge and financial attitude, aiming to improve the level of personal financial literacy among people by developing a model of financial literacy. The authors found that there is a strong interrelationship between financial behavior, financial knowledge, and financial attitude, and that financial literacy could be affected by all three factors—with financial behavior on top. The authors further pointed out that the focus must be on developing positive financial behavior.

Frijns et al. (2014) argues that there is a positive correlation between stock market experience and financial literacy, I.e., financial literate individuals have high stock market participation. Individuals with above average financial experience also have greater financial literacy. Agarwalla et al. (2015) scrutinized the impact of various socio-demographic factors on the levels of financial knowledge, attitude, and behavior of young individuals by issuing and studying data from a questionnaire. The authors found that there is a high level of education among some individuals who score poorly on the financial literacy scale. This is because of the absence of information relating to financial literacy in the education system. The other reason is the wide prevalence of joint-family and uninformed financial decisions. Another noteworthy conclusion is that there exists a positive association between financial behavior and financial knowledge.

Agnew & Cameron-Agnew (2015) found that the most significant factor for financial literacy is financial discussions in the home, which had far-reaching effects on children and young adults. The authors show that socialization and discussions of financial matters at home are also subject to gender bias which leads to variation in financial literacy between genders. Madhulata (2016) questioned 200 people in rural Sonipat District, Haryana State, India about their awareness of financial literacy, revealing that gender, income, nature of work, and level of education are all crucially associated with basic financial literacy, but age has no such association.

Murendo & Mutsonziwa (2017) used primary survey data from a sample of 4,000 people in Zimbabwe to analyze the factors of financial literacy and their effect on individuals' personal savings decisions. Econometric analysis showed that higher financial literacy has a positive interconnectedness between savings behavior for residents of urban and rural localities. Kadoya et al. (2018) found that more financially literate individuals amass more assets over time, resulting in reduced anxiety in their old age.

SIGNIFICANCE OF THE STUDY

Financial literacy is a new idea to India and little research has been done on it in the Indian context. This article aims to study the awareness of financial literacy held by college students. If financial literacy is imparted to young people, it is more likely that they will take better steps in life to generate a corpus of wealth. For example, a person with high financial literacy has a higher probability of planning better for their retirement–there is a significant correlation between planning for retirement and financial success. They are also more likely to invest in the stock market—strongly related to building long term wealth. This study identifies areas where students are weak in financial literacy concepts. This will aid educators, financial institutions and regulators to create financial literacy courses connected to the financial environment of the country and help college students achieve greater "financial freedom" and better plan to cope with their retirement periods.

This article relates the financial knowledge, financial behavior, and financial attitude of undergraduate students in India and their level of knowledge about various investment avenues and financial technologies. It will help to discover whether financial literacy has a significant impact on undergraduate students' decision-making. This article will help us get a better understanding of undergraduate students' awareness of financial products, financial technologies, and digital economy benefits. It will help develop knowledge about the attributes impacting students' attitudes and evaluate the significance of these attributes for the decision-making of undergraduate students.

METHODOLOGY

A financial literacy scale for OECD member nations (OECD, 2022) was used to create an online survey based on India's particular circumstances and financial products and services. The survey's respondents were found through a random sampling technique. The primary survey was conducted in the cities of Greater Noida in the state of Uttar Pradesh and in New Delhi. The questionnaire was administered to 400 students and received 378 responses. A total of 352 were valid for analysis. An independent T-test and a One-way Analysis of Variance (ANOVA) test were used to determine if there were significant differences in the financial literacy scores of respondents based on factors like demographics, family profiles, gender etc.

FINDINGS

ANALYSIS OF MEAN DIFFERENCES USING INDEPENDENT T-TEST

Although the students' total financial literacy was found to be low, the cross-tabulation of accurate scores shows that there are substantial variances in financial literacy scores among the different students based on exposure to financial products, as mentioned above. Table 1 shows that the mean differences among male and female respondents were -0.25551, -0.40864, -0.36301, -0.51370 and -1.37323 in the General, Savings and Borrowing, Investment, and Insurance scores and in the

Overall Financial Literacy score. The respective mean score differences among business and economics students and non-business and economics students were -1.20132, -0.70554, -0.71508, -1.35877- and -4.10636.

Table 1. Results of independent t- test of survey data to show difference in means.

	General	Saving & Borrowing	Investment	Insurance	Financial literacy
a. Gender					
Male vs. Female	-0.25551	-0.40864	-0.36301	-0.51370	-1.37323
F. Statistics	13.057	0.009	0.485	0.386	6.526
b. Field of Study					
Business Major vs. non	- 1.20132	-0.70554	-0.71508	-1.35877	-4.10636
F. Statistics	0.814	3.782	6.079	2.608	6.290

FINANCIAL LITERACY DIFFERENCE BY GENDER

Table 2 shows that the F statistic result is 8.994 and the significance value is 0.003, which is less than the 0.05 at the five percent significance level, so there is a considerable difference in financial literacy by gender among Indian college students. Based on the previous table in cross-tabulation, male respondents were found to be more knowledgeable (49.8 percent) than female respondents (44.8 percent). The differences for all components are statistically significant. The findings from the survey indicate that males are more likely to be financially literate than females at the 0.05 level. Hence, there is a considerable gender difference in the financial literacy of Indian college students. This is consistent with studies in other locations (Al-Tamimi & Kalli, 2009; Beal & Delpachitra, 2002; Bumcrot et al., 2011; Chen & Volpe, 1998; Danes & Haberman, 2007; Manton et al., 2006; Volpe et al., 1996).

Table 2. Independent t-test of survey data showing a difference in means.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	180.012	1	180.012	8.994	.003
Within Groups	7,605.278	380	20.014		
Total	7,785.291	381			

DIFFERENCE IN FINANCIAL LITERACY LEVEL BASED ON YEAR OF STUDY

Table 3 shows the F statistic result of 37.027 and significance value of 0, which is less than 0.05, or the five percent significance level. Consistent with the previous cross-tabulation table, this indicates there is a considerable difference in all dimensions of financial literacy based on the year of study completed by the students surveyed.

Table 3. ANOVA test of financial literacy level and respondents' year of study.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1,272.538	2	636.269	37.027	0.00
Within Groups	6,512..753	379	17.184		
Total	7,785.291	381			

The tests on general finance issues, saving and borrowing, investment, insurance for the entire survey are significant at the five percent significance level. Third-year students were found to be more financially knowledgeable than second-year students, who were more knowledgeable than first-year students, because third-year students take more finance courses than first-year students. One can understand from this that education is a method helping people increase their financial knowledge. A student's financial literacy is significantly influenced by their academic year. This result is consistent with past research (Chen & Volpe, 1998; 2002).

PROFILE OF RESPONDENTS

The average score of Indian students' personal financial literacy was 56 percent. This indicates that the majority of university students answered accurately some of the questions provided in the questionnaire. However, referring to Chen & Volpe's classification (1998), this overall average of personal financial literacy falls into the low category. Students were extremely capable within the field of financial behavior but outcomes were low in financial knowledge and financial attitude.

Table 4. Percentage analysis of the demographic profile of respondents.

Variables	Categories	Frequency	Percentage
Gender	Male	232	65.9 %
	Female	112	31.8 %
	Others	8	2.3 %
Family Income Band	Up to ₹20,429 a month	48	13.6 %
	₹20,429 - ₹34,050 a month	56	15.9 %
	₹34,050 or more a month	176	50 %
	Do Not Know	48	13.6 %
	Refused	24	6.8 %
Age Band	18-19	48	13.6 %
	20-29	272	77.3 %
	30-39	32	9.1 %
Work Situation	Student	248	70.5 %
	Self-Employed	40	11.4 %
	Paid Employment	64	18.1 %

Table 5. Average personal financial literacy score by area.

Area of Personal Finance	**Level of Personal Financial Literacy**		
	Low	Medium	High
	<60%	60-79%	≥80%
Financial Knowledge	54.21%		
Financial Behavior		60.8%	
Financial Attitude	55.55%		

FINANCIAL KNOWLEDGE

The first set of questions evaluated elementary principles in finance such as the impact of inflation on spending power, simple interest, the effect of compounding interest, the benefits of diversification, and the linkage and relation between risk and return. Table 6 lists questions about the definition of inflation (72.7 percent), and the relationship between risk and return (68.2 percent). Another question in this set was about simple interest and identification of interest and 65.9 percent of students were able to define 'simple interest' correctly.

Table 6. Financial knowledge awareness.

Information Collected	Level of Awareness			
	Aware		Not Aware	
	Frequency	Percentage	Frequency	Percentage
Impact of Inflation on Spending Power	136	38.6	216	61.4
Identification of Interest	216	61.4	136	38.6
Simple Interest	232	65.9	120	34.1
Compound Interest	104	29.5	248	70.5
Risk & Reward	240	68.2	112	31.8
Definition of Inflation	256	72.7	96	27.3

There was also, worryingly, a low level of understanding of compound interest. This question was answered properly by only 29.5 percent of respondents, and 70.5 percent of students thought there was no distinction between simple and compound interest. The influence of inflation on spending power was examined in another question; only 25 percent of students correctly answered that inflation diminishes buying power while 13.6 percent of students said that despite inflation, purchasing power relies on the types of products that they wish to buy. Respondents received an overall score of 3.795 on a 7-point scale in financial knowledge. This puts it in the category of low awareness of financial literacy.

FINANCIAL ATTITUDE

Financial attitudes and preferences are a critical part of financial literacy. If students have a negative attitude toward saving for their future, then they will be less inclined to do so. In the same way, if students focus on short-term wants, then they are less likely to save for emergencies or to make longer-term financial plans for their life.

The OECD financial literacy survey comprises three statements that seek to understand respondents' views on money and planning for the future. The attitude questions ask respondents whether they agree or disagree with various propositions. An average financial attitude score of above three is regarded as a "high" score since it demonstrates attitudes toward the longer-term.

According to table 7, the answers that respondents showed the best financial literacy were to the question: "I tend to live for today and let tomorrow take care of itself." Students scored 3.068 on a scale of five in this financial attitude question. The answers displaying the poorest financial literacy were the financial attitude questions involving views on the "the desire to spend money rather than to save it for the long term" and "money is there to be spent." Respondents scored 3.023/5 in both the questions. Students scored an overall score of 3.04/5 which comes under the 'high' category.

Table 7. Financial attitude.

Financial Attitude	Score	Overall Score
"I find it more satisfying to spend money than to save it for the long term."	3.023/5	3.04/5
"Money is there to be spent."	3.023/5	
"I tend to live for today and let tomorrow take care of itself."	3.068/5	

FINANCIAL BEHAVIOR

Financial behavior has a tremendous impact on the financial wellbeing of college students. Therefore, it is vital to incorporate it into measures of financial literacy. The OECD INFE questionnaire used in this study does so by addressing a set of questions in diverse variations, to discover habits such as: considering before purchasing a product, punctual bill payments, budgeting, saving, and indebtedness.

The financial behavior level shown in table 8 evaluates positive behavior. It takes a maximum value of nine, and a score of six or more is assumed to be relatively high. Students obtained a total score of 4.99/9.00, which is in the medium level of positive financial behavior.

Table 8. Positive financial behaviors.

Type of Information Collected		Percentage of Students Following Positive Financial Behaviors
Behavior Statements	Carefully Considers purchases	81.8
	Timely Bill Payments	79.5
	Careful About financial affairs	59.1
	Long Term Goal	47.7
	Budget	50.0
	Saves Actively	100.0
Selection of Financial Products	…after gathering some info	31.8
	… after using "independent info"	18.2
	No borrowing to make ends meet	56.8

There is wide variation among respondents' financial behavior scores. "Choosing financial products after gathering some information" and "using independent information or advice" were the issues where participants responded with the lowest knowledge. Only 18.2 percent of students considered using independent information or advice to select financial products, while 25 percent of students chose financial products on the recommendations of family, friends, or acquaintances which indicates that word of mouth is held in high regard in the Indian context. While on the other hand, 10 percent of respondents had an active saving behavior and 81.8 percent carefully considered their purchases.

While it is crucial to focus on each aspect of financial literacy, we should also explore how each aspect merges into financial literacy. After combining survey response data on financial knowledge, financial attitude, and financial behavior, the cumulative financial literacy score for the sample was 11.825, on a scale of 21.

DISCUSSION

These findings are accordant with research by Chen & Volpe (1998) in the USA context. This study concludes that university students in India do not have adequate levels of financial knowledge. Their low financial literacy significantly influences their future lives because of likely poor management of their financial affairs. Financial literacy initiatives are absent at basic and secondary education levels. The earlier such initiatives are introduced, the better the outcomes will be for both the students and the financial system as a whole.

Shaari et al. (2013) and Agarwalla et al. (2015) argue that the ramifications of inadequate financial literacy go deeper than merely students' finances. Academic performance, work chances after graduation, mental and physical wellbeing are all damaged by inappropriate financial management. Thus, the university sector needs a better and more holistic strategy in addressing the financial demands of students.

As a National Council on Economic Education (2005) study recommends, courses on personal financial literacy should be incorporated into the curriculum. These should be mandatory for all departments. These courses must contain experiential learning projects and practical experience, boosting engagement as well transferring knowledge and money management skills to students.

RECOMMENDATIONS

As per the findings of this research, the below recommendations are provided in two sections: for policymakers and universities, and for future researchers of financial literacy.

RECOMMENDATIONS FOR POLICYMAKERS AND UNIVERSITIES

The results show that respondents from business and economics fields and with a higher education level have higher financial literacy. Bruhn (2013) found that the financial literacy of students in Brazil increased significantly after they were put through an education program designed to convey concepts of financial literacy. Additionally, their findings indicate a considerable impact on students' understanding, financial independence, good savings behavior, and healthy spending habits. The Government of India should introduce courses related to finance to non-business and economics students at the university and high school education levels. Because female students in India have lower financial literacy than males, short and long-term financial training programs should be arranged regularly for them to close the gap. Further, the Government of India should cooperate with other sectors to develop a policy on financial literacy and assign responsibilities of giving short trainings to Indian youth. The policy should include a working plan to improve financial literacy using different strategies.

Given this study found education institutions are core to improving financial knowledge, university authorities in India should introduce workshops, seminars or trainings to introduce basic financial issues to higher education students not enrolled in business or economics subjects, who have lower financial literacy than business students. Universities should encourage females to participate and improve their financial knowledge. Students must consider financial knowledge to be very important to their studies since they are going to make decisions independently in the near future. In order to better promote and coordinate improved financial literacy, national, regional, local public and private initiatives need to work together. Financial literacy ensures individuals are informed and empowered to make their own financial decisions.

RECOMMENDATIONS FOR FUTURE RESEARCH

Given this study shows that women have lower financial literacy than men, further research is needed on why this is, and how it relates to saving habits and investment behavior. Future studies should include variables not covered in this study, such as relating financial literacy to retirement preparedness, how financial institutions affect financial literacy programs and initiatives, and the impact of financial literacy on economic development. The sample also needs to be expanded. Students in other parts of India should be surveyed. Similar research could also be undertaken on other demographics: investors, employees or other individuals to assess their financial knowledge and decision-making ability on finance issues.

PRACTICAL IMPLICATIONS OF THE STUDY

Financial literacy is vital for establishing financial security. The significance of financial literacy in recent years has greatly improved due to advancements in financial markets. In India, a large section of the population remains outside formal financial markets. Providing financial education will help include them in the system.

Adults need to be financially responsible and make rational decisions for the wellbeing of themselves and their families. Providing financial education to adults improves the quality of financial decision-making and results in tremendous benefits. Senior citizens can enjoy retirement benefits if they properly plan for their financial future by enhancing their financial knowledge and skills.

Financial literacy thus plays a significant role in lowering economic inequities and diminishing information asymmetry between financial intermediaries and consumers. Increased financial literacy will result in less financial concern and greater financial wellbeing.

REFERENCES

Agarwalla, S. K., Barua, S. K., Jacob, J., & Varma, J. R. (2015). Financial Literacy among Working Young in Urban India. *World Development*, *67*, 101–109. https://doi.org/10.1016/j.worlddev.2014.10.004

Agnew, S., & Cameron-Agnew, T. (2015). The influence of gender and household culture on financial literacy knowledge; Attitudes and behavior. *Journal of Financial Management, Markets and Institutions*, *3*(1), 31-50. https://doi.org/10.12831/80529

Bauer, J. W., Braun, B., & Olson, P. D. (2000). Welfare to Well-Being Framework for Research, Education, and Outreach. *The Journal of Consumer Affairs*, *34*(1), 62–81. https://www.jstor.org/stable/23859981

Beal, D. J., & Delpachitra, S. B. (2003). Financial Literacy Among Australian University Students. *Economic Papers: A Journal of Applied Economics and Policy*, *22*(1), 65–78. https://doi.org/10.1111/j.1759-3441.2003.tb00337.x

Bhushan, P., & Medury, Y. (2014). An Empirical Analysis of Inter Linkages Between Financial Attitudes, Financial Behavior and Financial Knowledge of Salaried Individuals. *Indian Journal of Commerce and Management Studies*, *5*(3), 58-64.

Bruhn, M., de Souza Leão, L., Legovini, A., Marchetti, R., & Zia, B. (2013). The impact of high school financial education: Experimental evidence from Brazil. World Bank Policy Research Working Paper, (6723).

Bumcrot, C. B., Lin, J., & Lusardi, A. (2011). *The Geography of Financial Literacy* (RAND Working Paper No. WR-893-SSA). https://dx.doi.org/10.2139/ssrn.1969650

Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, *7*(2), 107–128. https://doi.org/10.1016/S1057-0810(99)80006-7

Chen, H., & Volpe, R. P. (2002). Gender differences in personal financial literacy among college students. *Financial Services Review*, *11*(3), 289-307.

Cole, S., & Fernando, N. (2008). Assessing the importance of financial literacy. *ADB Finance for the Poor*, *9*(2), 1-6.

Ersoy, G., & Özen, E. (2022). Behavioral Finance and Financial Literacy: An Evaluation for Teachers. *Journal of Economics and Business Issues*, *2*(1), 33-44.

Financial Behaviours and Vulnerability to Poverty in a Transition Context. (2010, November 15). European Microfinance Network. Retrieved December 20, 2022, from https://www.european-microfinance.org/publication/financial-behaviours-and-vulnerability-poverty-transition-context

Frijns, B., Gilbert, A., & Tourani-Rad, A. (2014). Learning by doing: The role of financial experience in financial literacy. *Journal of Public Policy*, *34*(1), 123-154.

Garman, E. T. (1997). Personal Finance Education for Employees: Evidence on the Bottom-Line Benefits. *Journal of Financial Counseling and Planning*, *8*(2).

Garman, E. T., Leech, I. E., & Grable, J. E. (1996). The Negative Impact of Employee Poor Personal Financial Behaviors On Employers. *Journal of Financial Counseling and Planning*, *7*, 157–168.

Gaurav, S., & Singh, A. (2012). An inquiry into the financial literacy and cognitive ability of farmers: Evidence from rural India. *Oxford Development Studies*, *40*(3), 358-380.

Haberman, H., & Danes, S. M. (2007). Father-daughter and father-son family business management transfer comparison: Family FIRO model application. *Family Business Review*, *20*(2), 163-184.

Hassan Al-Tamimi, H. A., & Anood Bin Kalli, A. (2009). Financial literacy and investment decisions of UAE investors. *The Journal of Risk Finance*, *10*(5), 500-516.

Kadoya, Y., & Khan, M.S.R. (2018). Can financial literacy reduce anxiety about life in old age?. *Journal of Risk Research*, *21*(12), 1533-1550.

Madhulata. (2016), Assessment of financial literacy in rural areas of Sonepat district of Haryana. *International Journal of Research in Finance and Marketing*, *6*(11), 154–165.

Mahmood, I., Ahmad, H., Khan, A. Z., & Anjum, M. (2011). Behavioral implications of investors for investments in the stock market. *European Journal of Social Sciences*, *20*(2), 240-247.

Manton, E. J., English, D. E., Avard, S., & Walker, J. (2006). What college freshmen admit to not knowing about personal finance. *Journal of College Teaching & Learning*, *3*(1), 43-54.

Murendo, C., & Mutsonziwa, K. (2017). Financial literacy and savings decisions by adult financial consumers in Zimbabwe. *International Journal of Consumer Studies*, *41*(1), 95-103.

National Council on Economic Education. (2005). *What American Teens & Adults Know About Economics*. National Council for Economic Education.

OECD INFE. (2011). Measuring Financial Literacy: Questionnaire and Guidance Notes for Conducting an Internationally Comparable Survey of Financial Literacy. *OECD*. https://www.oecd.org/finance/financial-education/49319977.pdf

OECD. (2022). *Toolkit for measuring financial literacy and financial inclusion*. https://www.oecd.org/finance/financial-education/toolkit-for-measuring-financial-literacy-and-financial-inclusion.htm

Sarah, N. (2009). *Financial Knowledge, Locus of Control, Cultural values And Financial Behavior among New Vision Employees* [Unpublished doctoral dissertation). University Kampala, Uganda.

Shaari, N. A., Hasan, N. A., Mohamed, R. K., & Sabri, M. A. (2013). Financial literacy: A study among the university students. *Interdisciplinary Journal of Contemporary Research in Business*, *5*(2), 279-299.

Swiecka, B., Yeşildağ, E., Özen, E., & Grima, S. (2020). Financial literacy: The case of Poland. *Sustainability*, *12*(2), 700. https://doi.org/10.3390/su12020700

Volpe, R. P., Chen, H., & Pavlicko, J. J. (1996). Personal investment literacy among college students: A survey. *Financial Practice and Education*, *6*(2), 86-94.

Wagner, J. (2014). An empirical analysis linking a person's financial risk tolerance and financial literacy to financial behaviors. *Journal of Economic Psychology*, 1-27.

West, J. (2012). Financial Literacy Education and Behavior Unhinged: Combating Bias and Poor Product Design. *International Journal of Consumer Studies*, *36*(5), 523-530.