

IMPACT OF SOCIO-DEMOGRAPHIC AND EDUCATIONAL FACTORS ON FINANCIAL LITERACY IN YOUNG ADULTS

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Article History

Received : 2026-06-02

Revised : 2026-07-23

Accepted : 2026-08-14

Published : 2026-08-22

Abstract

This research analyzes 1230 respondents from 4 North Indian states using nonparametric statistics (Mann–Whitney U test and Kruskal–Wallis H test) to evaluate how age, gender, education, wealth, formal financial education, and workshop participation determine financial literacy. Results of partial correlations showed that there was no age effect in participants aged 18-29 ($rb = 0.023$, $p = .426$). It is interesting to note that females had greater financial literacy than males ($rb = 0.072$, $p = .013$), contradicting global trends. Financial workshops were the most significant predictor ($rb = 0.152$, $p < .001$), followed by formal finance education ($rb = 0.090$, $p = .002$). The income findings indicated that high-income participants outnumbered both the no-income and low-income groups, supporting a threshold effect. Professional or advanced qualifications showed significantly higher financial literacy than postgraduate degrees ($rb = 0.216$, $p < .001$). These results are consistent with consumer socialization theory and indicate that interventions using more experiential, workshop formats may be more effective than traditional classroom-based teacher instruction for improving young adults' financial literacy, especially among lower-income groups.

Keywords: Financial literacy, young adults, socio-economic factors, demographic factors, non-parametric tests

1. Introduction

Financial literacy has become an essential life skill, as understanding financial culture and markets has become increasingly important (Dewi, 2022). The Organization for Economic Cooperation and Development defines financial literacy as a combination of awareness, knowledge, skills, attitude, and behavior necessary to make sound financial decisions, and ultimately achieve individual well-being (OECD INFE, 2020). This is because this construct is multidimensional, comprising awareness of financial concepts and their basis for decision-making (Goyal et al., 2021). Young adults are particularly susceptible to financial illiteracy. They are supposed to shift from dependence on others to self-sufficiency. It becomes difficult when young adults are assigned roles and responsibilities before they have acquired any prior experience (Garg & Singh, 2018). There are three broad consistencies in the findings: internationally, financial literacy among 18-24-year-olds is the lowest across nations (Kaiser et al., 2022; Lusardi & Mitchell, 2014). This shortcoming has a wide-reaching impact, as financially illiterate individuals are more likely to live with never-do-well debt, make detrimental investment decisions for here-and-now consumption, and save insufficiently for retirement (Lusardi, 2019).

However, financial literacy is not only a matter of personal interest; as shown elsewhere, it matters for the economy as a whole. At the macro level, a financially literate country will have a strong economy, financial stability, and inclusive growth (Kumar et al., 2023). On the other hand, widespread ignorance of financial matters can have systemic implications that increase the risk of a financial crisis, as in 2008, stemming from low levels of consumer financial know-how. (Lusardi & Mitchell, 2023). But the financial literacy concept is marked by large differences in the proportions of those who have and do not have access to it across demographic groups and income levels. The “gender gap” in financial literacy is widely documented, with women more likely to have lower levels of financial knowledge and understanding of products (Preston et al., 2024). Education level, income, and parental background were among the major factors affecting financial literacy (Rehman & Mia, 2024).

Nevertheless, some limitations exist in the available studies. First, studies assess general populations or non-specific occupational categories rather than young adults (Chhatoi et al., 2020). Second, the extent to which demographic characteristics influence financial literacy remains mixed across diverse contexts and populations (Gupta & Hanagandi, 2022). In the bid to remedy these deficiencies, we seek to achieve three main objectives with this research: (1) demonstrate how demographic factors such as age, gender, education, and income impact financial literacy; (2) assess if formal finance education has an effect on financial literacy; and (3) understand whether participation in financial workshops has a significant effect on financial literacy for young adults.

This study contributes to the existing literature in many ways. First, it has a specific focus on young adults, an important yet understudied population during the life-course period of building financial capacity. Second, it uses a wide array of demographic and socioeconomic variables to enhance our understanding of the correlates of financial literacy. Third, it uses nonparametric analytic methods suited to the study's demographic variables, thereby enhancing the quality of the analysis. Despite the widely acknowledged significance of financial literacy, little is known about the determinants of financial literacy among young adults in developing countries (Rani & Siwach, 2023). Such a gap in financial understanding is especially worrying, as young people in India constitute an important demographic group with distinct economic challenges (Dogra et al., 2023).

2. Literature review

Knowledge of money matters is now a fundamental requirement in our society. It affects personal finances and the overall economy. In an era of sophisticated financial products, electronic money services, and uncertain economic times, the ability to understand and use various forms of financial knowledge is more important than ever. In this literature review, we examine the theoretical rationale for factors contributing to financial literacy among youth at risk of poor financial behavior, and we discuss demographic characteristics and social contexts that shape the development of financial knowledge in this population, where empirical evidence is scarce.

2.1 Theoretical Framework

An empirical perspective is a comprehensive view that can be conceptualized and explained within consumer socialization theory as an exploration of how individuals acquire financial knowledge, behaviors, and skills throughout their lifespans. According to this theory, financial literacy is an effect of socialization by various

agents, including family, educational institutions, peers, and the media. Contemporary iterations of this model have incorporated digital socialization agents, recognizing the impact of social media, financial influencers, and virtual communities on young people's financial beliefs and actions (Yanto et al., 2021).

This notion also extends to the contemporary financial landscape for young adults, which has moved beyond traditional banking activities to include other financial products/services (e.g., cryptocurrency investments, buy-now-pay-later schemes, and robo-advisory services) (Powell et al., 2023). This procedure may also provide insight into why demographic and socio-economic factors are related to one's level of financial literacy, as these individual-specific factors can influence the financial wellness and distress individuals experience throughout their life cycles.

2.2 The Vulnerability of Young Adults

For young adults (those aged 18-29), the current economy makes it especially difficult to become financially literate. This life stage represents a turning point in the pursuit of financial independence, given the greater exposure to financial independence as well as an ad hoc approach to money management in the backdrop of significantly increasing economic volatility, inflation bite, and technology diffusion (Garg & Singh, 2018; Rehman & Mia, 2024). In this developmental stage of emerging adulthood, the challenges range from handling student loans and credit cards to choices about where to live and when (in the gig economy) to financial planning in the early phases of a career, all squeezed into a compressed period that can crush an uninformed young adult.

Youth's financial literacy has consistently been identified as a cause for concern in surveys conducted across several countries worldwide. Lusardi & Mitchell (2014) document this across several countries, showing that the typical performance of individuals aged 18-24 is lower than that of older individuals on standard financial literacy items. (Xie et al., 2023) expanded on this across 47 countries, documenting particularly large gaps in digital finance products and investment options. Financial illiteracy carries high long-term costs, as young adults who lack financial education are more likely to become debt-ridden, fall victim to fraud, make poor investment decisions, overspend in the present, and underprepare for retirement (Lusardi, 2019). Recent longitudinal studies show that the financial habits and knowledge constructs formed in young adulthood are remarkably stable over a lifetime, suggesting that this is a crucial stage for intervention and education (Shim et al., 2015).

2.3 Gender Disparities in Financial Literacy

The gender difference in financial knowledge has a long tradition of documentation (Preston et al., 2024), which confirms that, *ceteris paribus*, women score worse than men on tests administered in different contexts (Lusardi & Mitchell, 2023). Objective financial knowledge, for which such gaps still persist, differs from subjective financial behaviors; among younger generations, these discrepancies are less pronounced (Dewi, 2022).

Newer studies suggest that certainty, rather than knowledge, underlies many gender disparities. Women are more likely to select "don't know," even when provided with the correct response, especially for items on investments (Cucinelli & Soana, 2023). This reluctance may be a consequence of the long-standing association between financial administration and masculinity (Gonçalves et al., 2021) rather than an effect of subconscious thoughts about men being able to offer more or better advice (smaller gaps in a less gender-stratified country (Preston et al., 2024). There are also unique factors women face that lead to distinct financial challenges: longer life expectancies that require improved retirement planning, persistent wage gaps, and caregiving demands that limit wealth accumulation. Efficient financial literacy education should address these specific contexts; disparities may stem from women's realities rather than a knowledge gap (Amherst & Donohue, 2011).

2.4 Education, Formal Financial Training, and Financial Workshops

Financial literacy depends on financial culture; thus, the most educated know more about finance. (Karakurum-Ozdemir et al., 2019) also identified education as a risk factor across 144 countries. Research suggests that education is a stable predictor of financial literacy, even across different economies and cultures (Lusardi & Mitchell, 2023). The better financial decisions of more financially literate millennials highlight that they have quicker access to and better processing of financial information; stronger quantitative skills; no doubt, they are digitally literate; and stronger networks (Dewi, 2022). Recent evidence on experiential learning and financial workshops suggests that experiential learning through workshops may

be more effective than traditional classroom instruction for adult financial education (Kuntze et al., 2019). Workshops that incorporate interactive elements, real-world simulations, and peer learning demonstrate stronger behavioral impacts (Yanto et al., 2021).

2.5 Socioeconomic Factors: Income and Economic Status

Income and economic status play important, but independent, roles in financial literacy. Higher-income earners have access to financial products, advice, and education that offer greater potential for experiential learning (Lusardi, Michaud, & Mitchell, 2017). Economic advantage involves being well-connected in a wealth-literate network of relatives and friends, experiencing less financial strain, and receiving opportunities for early wealth accumulation. The interplay between income and financial literacy is self-reinforcing, widening the wealth gap (Arora & Chakraborty, 2023).

As income levels rise, individuals can develop financial literacy and make better financial decisions, which becomes an important factor in accumulating wealth (van Rooij et al., 2011). Longitudinal research indicates that those who are privileged possess stronger financial skills, while the less privileged struggle with resource scarcity (French & McKillop, 2016). Recent research reveals even larger income-based disparities in financial literacy, especially in digital financial services and investment.

2.6 Research Gaps

Although the field of financial education has been widely studied, few critical areas remain unexplored. For one, many studies focus on general or specific occupational populations rather than on young adults during their formative years (Chhatoi et al., 2020). Second, there are discrepancies in the effects of demographic variables on financial literacy across contexts; thus, contextual variables might moderate these relations (Rehman & Mia, 2024). Third, the relative effectiveness of formal versus informal financial education is questioned, influencing educational policy guidelines and curriculum design (Huang et al., 2024). This paper contributes to the literature by focusing on young adults, accounting for demographics, comparing education and experiential learning, applying nonparametric methods, and considering a developing-nation context. This study contributes to the literature by guiding the development of intervention strategies tailored to different populations by better understanding the factors that shape financial literacy.

3. Research Methodology

3.1 Sample size and data collection

The analysis in this study focuses on young adults aged 18 to 29 in India. The definition of "young adults" is fluid. In India, young adults are divided into two age groups: those aged 18–23 and those aged 24–29 (Utkarsh et al., 2020). To obtain responses from people in this age group, surveys are distributed in person at colleges and other business establishments. Responses are gathered from urban and semi-urban locations in Punjab, Haryana, Delhi, and Himachal Pradesh, four states in North India, using a stratified proportionate sampling technique. The minimum sample size is determined using Zikmund et al. (2010). When the population size exceeds 5,00,000, the sample size for a 95% confidence level should be at least 322. 1230 responses, which exceed the required sample size, are evaluated in this study after data cleaning, including the removal of outliers and missing values. Table 1 displays the sample's demographic information.

Table 1: Demographic and socio-economic characteristics of young adults

Variable	Category	N	%
Demographics			
Age	18-23	746	60.7
	24-29	484	39.3
Education qualification	Higher secondary	398	32.4
	Graduate or equivalent	465	37.8
	Post-graduate or equivalent	254	20.7
	Professional or advanced	113	9.2
Gender	Male	735	59.8
	Female	495	40.2

Socio-economic			
Income	No income	737	59.9
	Less than 40,000 per month	213	17.3
	40,001-80,000 per month	106	8.6
	80,001-1,20,000 per month	72	5.9
	More than 1,20,000 per month	102	8.3
Educational Factors			
Studied finance as a subject	No	770	62.6
	Yes	460	37.4
Financial workshops attended	No	885	72.0
	Yes	345	28

Source: Author's own work

3.2 Measurement of variables

The questionnaire is divided into six sections: four socio-demographic and two educational-factor questions; seven items on financial knowledge; seven items on financial attitude; and nine items on financial behavior, all measured on a five-point Likert scale (from "1 = Strongly Disagree" to "5 = Strongly Agree"). Five items on financial skills with multiple-choice questions where 1 is given to the correct answer, and 0 is given to the incorrect answer. The questionnaire has been thoughtfully designed to collect useful data on the identified research factors. Annexure 1 contains the extensive items used to assess each construct. The questions of financial knowledge, attitude, and behavior are adopted from Kumar & Das (2019) and OECD INFE (2022). The financial skills items are adopted from OECD INFE (2022) and Paolo Stella et al. (2020). The questionnaire items are listed in Annexure 1.

3.3 Statistical analysis

SPSS is used to perform the initial statistical computations and analysis. The reliability of the financial literacy components is assessed using Cronbach's alpha and Kuder-Richardson Formula 20 (KR-20) for dichotomous items (Tavakol & Dennick, 2011). Three items on financial attitude and two on financial behavior are removed to improve construct reliability. The reliability of the financial knowledge ($\alpha = 0.85$), financial attitude ($\alpha = 0.77$), financial behavior ($\alpha = 0.82$), and financial skills (KR-20 = 0.75) scales demonstrates acceptable to good internal consistency exceeding the minimum threshold of 0.70 recommended for research purposes.

The individual scores of financial knowledge, attitude, behavior, and skills are calculated. All the individual scores are standardized using the formula: $((x - \text{minimum}) / (\text{maximum} - \text{minimum})) * 100$. The aggregate score is calculated by adding the standardized scores of all components of financial literacy. Visual binning is used to divide the data into quartiles based on the aggregate financial literacy score. Individuals in quartiles 1 and 2 are recoded as 1 (Low financial literacy). Further, individuals in quartiles 3 and 4 are recoded as 2 (High financial literacy).

JASP software is used to perform further statistical analysis. The Mann-Whitney U test is run for the variables with two categories (Age, gender, studied finance, attended financial workshops). The Kruskal-Wallis H test is used to identify the effects of variables with more than two categories (Income and educational qualification). The choice of non-parametric tests is justified by several factors. First, the Mann-Whitney U and Kruskal-Wallis H tests do not assume normality of the outcome variable, making them appropriate for ordinal or categorical data. Second, these tests are robust to outliers and well-suited for small-to-moderate subgroup sample sizes (Corder & Foreman, 2014). The rank-biserial correlation effect size allows for a practical plot, with thresholds of 0.1, 0.3, and 0.5 corresponding to small, medium, and large effects, respectively (Kerby, 2014). The data analysis results are presented in the next section.

4. Data Analysis

The response data is cleaned for missing values, univariate outliers (based on z-scores), and multivariate outliers (based on Mahalanobis Distance). Before the main analyses are conducted, the data are checked to ensure they meet the test's assumptions. Mardia's coefficient, a measure of skewness and kurtosis, is not normally distributed (Zhang & Yuan, 2018), supporting the adoption of a nonparametric approach.

4.1 Mann-Whitney U test

Mann-Whitney U tests are conducted for age, gender, studied finance, and attended financial workshop to identify the demographic differences, presented in Table 2. There is no significant difference between 18-23 years old ($M = 1.493$, $SD = 0.500$) and 24-29 years old ($M = 1.517$, $SD = 0.500$). The small effect size (0.023) suggests that the age factor has no influence on financial literacy level in the present sample. There is a significant difference between males ($M = 1.473$, $SD = 0.500$) and females ($M = 1.545$, $SD = 0.498$). Females have higher financial literacy, but the effect size is small ($r = 0.072$), indicating modest practical significance. Students who have studied finance as a subject ($M = 1.559$, $SD = 0.497$) achieved significantly higher scores than those who have not studied finance ($M = 1.469$, $SD = 0.499$). The difference is significant, but the effect size ($r = 0.090$) is small.

The results indicate that taking finance courses is positively associated with higher financial knowledge. The most noticeable effect on the way is the financial workshops. Those who disclose attending financial workshops ($M = 1.612$, $SD = 0.488$) have significantly higher scores than those who report not attending ($M = 1.460$, $SD = 0.499$). The moderate effect size ($r = 0.152$) indicates that attending a financial workshop is a substantial predictor of high financial literacy. Overall, the financial workshop is the strongest demographic predictor, followed by studying finance as a subject and gender, with no significant relationship observed for age with financial literacy levels.

Table 2: Mann-Whitney U test

Variable	Group	N	Mean	SD	Mean Rank	U	p	rb
Age	18-23	746	1.493	.500	609.9	176,338	.426	0.023
	24-29	484	1.517	.500	624.2			
Gender	Male	735	1.473	.500	597.7	168,818	.013*	0.072
	Female	495	1.545	.498	642.0			
Stud_Fin	Yes	460	1.559	.497	650.1	161185	.002**	0.090
	No	770	1.469	.499	594.8			
Fin_ws	Yes	345	1.612	.488	682.6	129503	<.001***	0.152
	No	885	1.460	.499	589.3			

Note: rb = Rank-biserial correlation (effect size), * $p < .05$, ** $p < .01$, *** $p < .001$

Source: Author's own work

4.2 Kruskal-Wallis H test results

A Kruskal-Wallis test is conducted to examine differences in financial literacy level for income and educational qualification. The results, as presented in Table 3, indicate a statistically significant difference in financial literacy levels across the three income groups ($\chi^2 = 9.808$, $df = 2$, $p = 0.007$). High-income young adults demonstrate the highest financial literacy ($M = 1.609$, $SD = 0.489$, mean rank = 681.2), followed by no-income participants ($M = 1.493$, $SD = 0.500$, mean rank = 609.4), and low-income participants ($M = 1.467$, $SD = 0.500$, mean rank = 593.8). Similarly, for educational qualification groups, results reveal a statistically significant difference in financial literacy levels across different educational levels ($\chi^2 = 15.51$, $df = 3$, $p = .001$). Participants with professional or advanced qualifications demonstrate the highest financial literacy ($M = 1.673$, $SD = 0.471$, mean rank = 720.1), followed by higher secondary school ($M = 1.497$, $SD = 0.501$, mean rank = 612.5), graduate ($M = 1.490$, $SD = 0.500$, mean rank = 608.0), and post-graduate qualifications ($M = 1.457$, $SD = 0.499$, mean rank = 587.4).

Table 3: Kruskal-Wallis H test results

Variable	Group	N	Mean	SD	Mean Rank	χ^2	df	p
Income	No income	737	1.493	.500	609.4	9.808	2	0.007**

Edu_qual	Low income	319	1.467	.500	593.8	15.51	3	0.001**
	High income	174	1.609	.489	681.2			
	Higher secondary	398	1.497	.501	612.5			
	Graduate	465	1.490	.500	608.0			
	Post-graduate	254	1.457	.499	587.4			
	Professional	113	1.673	.471	720.1			

Note: p = Bonferroni adjusted p-values for multiple comparisons, **p<.01
Source: Author's own work

4.3 Post-hoc Analysis

Where differences between groups are indicated, post hoc tests (with Bonferroni correction) are used to determine the significance of these differences. The data further indicate that the difference between the no-income and low-income groups is not significant ($z = 0.759$, $p = 1.000$, $rb = -0.025$). However, high-income participants have scored significantly higher than both no-income participants ($z = -2.767$, $p = .017$, $rb = 0.117$) and low-income participants ($z = -3.015$, $p = .008$, $rb = 0.142$). Rank-biserial correlations suggest small to moderate effects for those significant comparisons, and the low-income versus high-income comparison is the largest in magnitude ($rb = 0.142$). This implies that financial literacy increases with high income, but no contrast was found between having no income and low income.

Table 4: Post-hoc analysis results

Variable	Group	z	rb	p
Income	No income vs low-income	.759	-.025	1.000
	Low-income vs high-income	-3.015	.142	.008
	High-income vs no-income	-2.767	.117	.017*
Edu_qual	Higher secondary vs graduate	.210	-.007	1.000**
	Higher secondary vs post-graduate	1.016	-.041	1.000
	Higher secondary vs professional	-3.284	.175	.006**
	Graduate vs post-graduate	.862	-.034	1.000
	Graduate vs professional	-3.474	.182	.003**
	Post-graduate vs professional	-3.817	.216	< .001***

Note: rb = Rank-biserial correlation (effect size), p = Bonferroni adjusted p-values for multiple comparisons, *p<.05, **p<.01, ***p<.001

Source: Author's own work

Specific group differences at each level of education were identified using Dunn's post hoc tests with the Bonferroni correction and are presented in Table 4. The professional or advanced group has scored significantly higher than all other educational groups: higher secondary school ($z = -3.284$, $p = .006$, $rb = 0.175$), graduate ($z = -3.474$, $p = .003$, $rb = 0.182$), and post-graduate ($z = -3.817$, $p < .001$, $rb = 0.216$). Effect sizes range from small to moderate, with the difference between the postgraduate and professional groups being the largest ($rb = 0.216$). Higher secondary, graduate, and postgraduate groups do not differ significantly from each other (all $p = 1.000$). These results indicate that education level is positively associated with financial literacy at the professional, intermediate, and senior levels, but not at the junior or student levels.

4.4 Discussion

The results of this study show that the factors influencing financial literacy among young adults are partially consistent with and partially differ from findings in international studies. There exists no significant difference within the 18-29 group ($rb = .023$, $p = .426$), indicating that this age group is a relatively homogeneous developmental period (Gupta & Hanagandi, 2022). The result that women are more financially literate with a very high significant difference ($rb = 0.072$, $p = .013$), this result with a modest size of effect, contradicts the highly established global findings on male advantage (Shroff et al., 2025) and may be a

mirror of India-specific factors such as recent educational reforms, urban sampling pattern, or distinctive carefulness in financial learning (Bhatia & Singh, 2023).

The income-related disparities observed, with high-income participants significantly outperforming both no-income ($rb = 0.117$, $p = .017$) and low-income groups ($rb = 0.142$, $p = .008$). Null comparisons were observed between these latter two groups, consistent with worldwide trends (Lusardi, Michaud, Mitchell, et al., 2017). This indicates a threshold effect, in which financial benefits emerge only at higher income levels, supporting the previous finding of a bidirectional relationship between income and financial literacy in longitudinal studies (van Rooij et al., 2011).

The pedagogical implications are of special theoretical and practical significance. Formal finance education displayed the most notable yet relatively small effects ($rb = 0.090$, $p = .002$), with 141 studies replicating the meta-analysis finding (Kaiser et al., 2022). This aligns with growing evidence supporting experiential workshop-based approaches over traditional classroom instruction (Huang et al., 2024). Most surprisingly, the professional level of education was associated with higher financial literacy than all other levels of education completed by participants, including postgraduate degrees ($rb = 0.216$, $p < .001$ vs. postgraduates). There was no significant difference in higher secondary, graduate, and postgraduate sections (all $p > .000$).

The surprising result implies that professional education enables the development of transferable skills, critical thinking, analytical and problem-solving skills, and practical decision-making abilities, with financial awareness, which contributes to financial literacy, even if these do not have an explicit financial content (Dewi, 2022), and that purely academic progression that emphasizes theoretical knowledge may be insufficient in developing practical financial competencies. Taken together, these results advance consumer socialization theory by establishing a hierarchy of influence in which opportunities for experiential learning and applied educational experiences eclipse passive knowledge transmission (Shim et al., 2015) and provide further support for multi-faceted policy approaches that emphasize workshop-based programs, cross-disciplinary practical financial education, and trade barriers confronting socioeconomically disadvantaged youth.

5. Implications

Findings suggest that young adults' financial literacy is multifaceted and that the contributions of other factors must be considered in its development; perhaps such an emphasis can inform how effective experiential learning opportunities, including workshops focused on finances, can be. Workshop-based learning is preferable, suggesting that active learning techniques can more effectively capture and teach young adults' financial skills. The higher-income respondents' higher financial literacy scores may, on the one hand, imply greater access to financial education/materials, a more sophisticated experience with personal finance decisions, and better-quality educational experiences. This behavior suggests that interventions targeting lower-income groups may help reduce the financial literacy gaps. The educational qualification results indicate that professional or advanced training, regardless of field, provides financial literacy benefits beyond general academic achievement. This finding suggests that professional education programs, whether in finance, medicine, engineering, or other fields, may incorporate skills such as critical thinking, problem-solving, and practical decision-making that can be applied to financial contexts. Universities and colleges should consider integrating practical financial education across all disciplines, as even professional qualifications outside finance appear to enhance financial literacy more effectively than general undergraduate or postgraduate degrees alone.

6. Limitations and future research

The cross-sectional design does not allow for causal inference regarding the association between demographic and socioeconomic variables and financial literacy. The face validity of self-reported measures of financial literacy raises concerns about response bias, as respondents may overestimate their competence. The regional concentration in the four North Indian states and the urban-semi-urban focus exclude the rural population, which limits nationwide generalization. Furthermore, colleges and business institutions, as convenient sampling sites, may exhibit selection bias toward underemployed young adults who do not pursue higher education or formal employment. In addition, the paper does not differentiate among the forms or "quality" of formal financial education and workshop experiences. The disaggregation of each demographic variable cannot capture intercorrelations between predictors or interaction effects, and thus cannot capture the complex relationships among subgroups. Future research should utilize longitudinal designs that allow for causal inference.

7. Conclusion

The current study builds on consumer socialization theory (Shim et al., 2015) by demonstrating that formal classrooms and experiential learning activities are distinct socializing agents with varying influences on the development of financial literacy (Yanto et al., 2021). The superior performance of workshops over formal education implies that the nature and quality of socialization are more important than mere exposure to financial content. Results of this study indicate that financial literacy among young adults is complex, influenced by interactions among multiple determinants, and that an intervention focused on financial workshops was the most successful. The results provide a basis for extending the reach of financial education to be inclusive and accessible to all, especially through workshop-based financial education, which offers practical, hands-on learning.

Annexure 1

Financial Knowledge

FK1: You are aware of the concept of compound interest.

FK2: You are aware with the benefits of insurance.

FK3: You are aware with the risk involved in mutual funds.

FK4: Investing in more than one stock will diversify your risk.

FK5: You are aware of effect of inflation on cost of living.

FK6: Money received today holds more value than same amount of money received after one year.

FK7: You are aware about financial news and updates.

Financial Attitude

FA1: You tend to spend money today rather than save it for future.

FA2: You focus on making financial choices according to your present financial situation and not the future.

FA3: Financial planning is necessary for achieving financial goals.

FA4: Budget preparation helps in keeping finances on track.

FA5: You make financial decisions based on long-term benefits rather than short-term gains.

FA6: You prefer putting money in risky investments.

FA7: The first thing that comes to mind when you borrow money is making sure you repay it on time.

Financial Behavior

FB1: You follow a monthly budget for your expenses.

FB2: You track the differences of actual expenditure from the budget at the end.

FB3: You monitor your financial accounts on regular intervals.

FB4: You make sure to differentiate between essential and non-essential expenses.

FB5: You consider that you have already covered your essential expenses or not before making a significant purchase.

FB6: You check and compare prices before making a significant purchase.

FB7: You thoroughly read the contents before signing any financial contract.

FB8: You verify that your savings are sufficient to cover unforeseen expenses before committing to a significant purchase.

FB9: You clear your dues or bill payments on time.

Financial Skills

FS1: How can you maintain your savings ratio when the cost of living is 33% at your new place is higher than your previous location with the same salary?

Increasing purchases by 1/3

Decreasing purchases by 1/3

Decreasing purchases by 2/3

Do not know

FS2: How will you ensure your family's financial security in case something happens to you? What steps do you take to achieve this?

Buy a house by taking out a mortgage

Buy shares in a company

Subscribe an insurance policy

Do not know

FS3: You've decided to invest Rs. 10,000 in financial assets. You are presented with three different funds. Which one would you choose? (Level 1 indicates low risk, level 5 medium risk, and level 9 high risk)

Asset A: Return – 2%, Risk level – 3

Asset B: Return – 4%, Risk level – 3

Asset C: Return – 5%, Risk level – 9

Do not know

FS4: You have the chance to invest Rs. 20,000. Being a risk-averse (avoids taking risk) person with a long-term investment outlook, which investment do you believe best suits your needs?

Investment in Bitcoin

Investment in government bonds

Investment in derivatives

Do not know

FS5: How will you utilize the money earned from your primary or secondary income sources, apart from the basic/needful expenses?

Using 80% of the amount to fulfill my long-desired wishes and save the remaining 20%

Using 25% for my wishes, Using 50% for a supplementary pension plan and 25% for Savings

Using 60% of the amount for my wishes, and Using 40% for savings

Do not know

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