



Does Investment Literacy Matter? An Empirical Analysis Of Its Impact On Investment Avenues

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Abstract: This study has been undertaken to investigate the association between investment literacy and investment avenues. For this purpose shares, mutual funds, bonds, fixed deposits, national pension scheme, public provident fund, senior citizen saving scheme is considered as investment avenues related to financial market and their relationship with investment literacy is studied. The sample for the study was 434 retail investors from the north region of India. Data was collected using questionnaire consisted 15 questions. The first category comprised questions in which respondents gave answer related to their holding in shares, mutual funds, bonds, fixed deposits, national pension scheme, public provident fund, senior citizen saving scheme. The second category comprised of 8 multiple choice questions which tested the retail investors knowledge in areas of basic investment calculations, their understanding of financial markets and products, and their knowledge of risk and diversification. Descriptive analysis and Chi-Square was used to find out the Association between investment avenues and investment literacy. The findings showed that investment literacy does not uniformly determine the selection of investment avenues among respondents. For most financial products examined—including mutual funds, bonds, Public Provident Fund (PPF), National Pension Scheme (NPS), and the Senior Citizen Saving Scheme (SCSS)—the association with investment literacy was found to be statistically insignificant. This indicates that individuals with below average, moderate, and high literacy levels participate in these instruments at relatively similar rates. In other words, higher financial knowledge does not necessarily translate into greater adoption of these specific products. The one exception to this trend was observed in the case of fixed deposits.

Keywords – Investment Literacy, Investment Avenues, Financial Inclusion, Financial Literacy.

I. INTRODUCTION

Financial literacy is frequently used as a primary study variable in studies on financial decision making (Zaimovic et al., 2023) and family financial socialization (Curran et al., 2018; Grohmann et al., 2015; Shim et al., 2010). According to Remund (2010), financial literacy encompasses knowledge of financial ideas, skillful discussion of them, prudent financial decision-making, efficient personal financial management, and creating plans for future financial requirements. When assessing financial literacy, researchers mostly use a multifaceted approach that takes into account important characteristics including knowledge, skills, behavior, and attitudes (Atkinson & Messy, 2012; Rai et al., 2019). We chose to use investing literacy as a specific indicator of proximal socialization effects in our investigation.

This entails evaluating the investing knowledge, abilities, and attitudes necessary to make well-informed judgments on investments in both conventional and cutting-edge financial products that are risk and return weighted. Prior studies have assessed investing literacy, primarily in connection with conventional investment products. Halim et al. (2021) investigated the connection between young adults' investment literacy and their preparedness to trade in the Malaysian stock market, finding that more investment literacy was linked to better

preparedness to trade in the stock market. When Volpe et al. (2002) investigated the demographics, investment literacy, and investing experience of online investors, they discovered that investors' investment literacy scores tended to rise with age and greater levels of education. Nevertheless, they also came to the conclusion that there was a lack of understanding of investment principles, pointing to the necessity for future development. Kim, Hanna, and Lee (2022) investigated how retail investors respond to market crashes and discovered that during market downturns, investors with greater levels of investing literacy are more inclined to buy more stocks and less likely to sell. Kim, Hanna, and Lee (2022) found that while higher subjective investment literacy is favorably connected with cryptocurrency ownership, better objective investment literacy is linked to a negative attitude toward cryptocurrency holdings in respect to innovative investment products. Regarding the peer-to-peer (P2P) lending market, Legenzova et al. (2023) reported that the high investment literacy of P2P lending investors was strongly impacted by their interactions with peers, while Ran et al. (2019) found that the efficiency of P2P borrowings and investments is positively associated with borrowers' and lenders' investment literacy.

The choice of investment literacy over financial literacy in this study allows for a more focused investigation of people's investing behavior and the variables influencing it. We further propose that investment literacy develops most extensively in adulthood when people begin actively participating in financial markets, even though some components of investment knowledge and attitudes start to emerge in childhood and adolescence through formal education and family socialization (Halim et al., 2021; Hira et al., 2013; Gouskova et al., 2010). Minors are not allowed to make their own investments in many nations, including Lithuania, where this study was carried out. Hence, financial socialization in adulthood may be viewed as an efficient mean to gather a substantial flow of information, transform it into investment knowledge, skills, and attitudes and, integrate them into rational investment behavior (Takeda et al., 2013).

The empirical data demonstrates how financial literacy has a major impact on saving, investing, and debt management practices. Since the Global Financial Crisis, there have been heated debates over how investors who lacked financial literacy were particularly at risk (Guiso & Viviano, 2014). Because financial institutions are constantly introducing increasingly complex financial products, obtaining financial literacy is therefore essential and remains relevant. Therefore, breaking down any barriers that could exist between consumers and financial institutions requires increasing financial literacy and education among consumers and financial market players.

One's comprehension of financial issues is referred to as financial knowledge. "Financial literacy" and "financial knowledge" have been used interchangeably in a number of studies. According to many writers, financial literacy includes the knowledge, skills, and attitudes that influence people's financial behavior. Mitchell and Lusardi (2011). Better money management, emergency savings, child education planning, and post-retirement planning are all possible for those who possess financial literacy. People's inability to meet even the most basic requirements and its ongoing significance have forced it into policy considerations. Sevcík (2015).

According to Mitchell and Lusardi (2011), "knowledge of basic financial concepts and the ability to perform simple computations" constitute financial literacy. Huston (2010) defines financial literacy as the application and understanding of personal finance. We connect financial literacy to other ideas like awareness, education, and financial competence. Fundamental financial ideas are pointless unless they are shown by financial activity. Messy and Atkinson (2012). According to Kempson et al. (2006), the phrases "financial literacy" and "financial capability" are interchangeable. Individuals who possess the information, comprehension, and abilities to handle their finances can be considered financially literate; nonetheless, their behavior must demonstrate that they are financially capable. The idea of financial literacy is wide and include research centers that analyze financial literacy outcomes, evaluate levels across different demographic cohorts, variables impacting financial literacy, and the impact of financial education on improving financial literacy.

Inspiring confidence, bolstering infrastructure, and increasing securities market participation rates are some of the main goals of securities market regulators, which go beyond their supervisory role. The narrow concept of financial inclusion, which has up to now focused on bank accounts, has to be reexamined in order to increase reach, raise knowledge of the securities markets, and highlight their importance in a nation's

economic development. Even though stocks and related instruments are frequently associated with unpredictability when compared to other capital formation and savings strategies (such as real estate, gold, savings accounts, post office savings, etc.), risk-adjusted returns from equities typically outperform other asset classes over the long term.

The government and organizations funded by the government must inform the public about the possibilities available in the securities markets in order to distribute the benefits of corporate earnings and stimulate dormant family savings. Furthermore, efficient securities markets have a substantial beneficial impact on economic growth, with ramifications that extend well beyond the advantages of a stronger banking system. A new policy research report from the World Bank states that "as economies develop, the marginal boost to economic activity associated with an increase in securities market development rises, while the marginal increase in economic activity associated with an increase in bank development falls." According to a number of research and polls, only a relatively tiny percentage of Indians invest in the securities market, compared to about 50% of people in nations with developed stock markets.

Business actors will be encouraged to innovate, be efficient, and invest if financial inclusion is increased, particularly through the availability of access to a variety of financial services and products (Baker & Sulong, 2018). These business players' operations will be transformed into economic production, which will eventually raise the standard of economic growth (Yin et al., 2019). In the current economic environment, financial inclusion has emerged as a critical problem. Even with major advancements in the global financial system, many people continue to lack access to basic financial services (Emara & Said, 2021; Khan et al., 2022). Approximately 1.7 billion individuals globally lack access to formal financial services, according to the World Bank. Due to restricted access to banking, credit, and investment options, this exclusion is most noticeable in developing nations. Individual economic progress and overall economic development are both hampered by a lack of financial inclusion. There is an urgent need to close this gap, and capital markets—which include equities and mutual funds—offer a workable way to increase financial inclusion. The Financial Services Authority's National Survey of Financial Literacy and Inclusion, however, indicates that while the gap between literacy and inclusion in the capital market has grown, it has shrunk in the financial sector in 2022. Issues may arise if there is a high level of inclusion but a still sizable disparity in the literacy index. Because many people use financial services without understanding financial products or services. Financial literacy is a determining factor in welfare through wider access to inclusive financial services.

This study aims to explore the association between investment literacy and financial products (shares, mutual shares, bonds, national pension scheme, saving accounts, fixed account etc.)

II. REVIEW OF LITERATURE

Together with the continuous globalization, the economy is currently undergoing fast expansion and advancement. This means that everyone needs to be able to handle their money and know how to do it. Additionally, this state is inextricably linked to the advancement of ever-more-advanced technology, which encourages consumption and neglects investment. Investments are made in one or more owned assets, often over an extended period of time, with the expectation of future rewards (Sunariyah, 2011). The ability to manage finances is known as financial literacy. Financial knowledge and the capacity to use it are components of capital market literacy, which is a subset of financial literacy (Lusardi et al., 2007). According to OJK (2017), financial literacy is a set of procedures or exercises designed to boost the self-assurance and abilities of customers and the general public so they can effectively handle their money.

Knowledge, comprehension, and abilities that help people make better informed and sensible investment decisions are all part of investment literacy (Weixiang et al., 2022). In this situation, investing literacy serves as a risk-reduction strategy that can boost individual investors' competitiveness in the capital market in addition to serving as an instructional tool. Nevertheless, investing literacy's ability to lower the Gender disparities are one of the many demographic characteristics that influence the impact of cognitive bias, which is not constant. Having a greater grasp of financial concepts, such as the inherent worth of assets and the elements that essentially influence stock prices, is made possible by investment literacy (Arora & Chakraborty, 2023). With this understanding, investors are less susceptible to being swayed by the choices of others and are more comfortable performing their own independent research. Investors that comprehend stock

valuation computations will assess if the stock price still makes sense based on pertinent financial measures rather than jumping to purchase stocks that are sharply increasing only because a lot of other investors are doing so (Mutia et al., 2024). Consequently, investment literacy is a useful instrument for developing a more critical and methodical approach to investing, which lessens the detrimental effects of follower behaviour, which frequently results in speculative bubbles and market instability.

A number of themes in financial inclusion research have been studied in the past, including: achieving financial inclusion through microfinance and financial institutions (Ghosh, 2013; Marshall, 2004); promoting development through financial inclusion (Ghosh, 2013; Sarma & Pais, 2011); the effects of financial inclusion on financial stability (Cull, Demirgüç-Kunt, & Lyman, 2012; Hannig & Jansen, 2010); the relationship between financial inclusion and economic growth (Kim, Yu, & Hassan, 2018; Mohan, 2006); and country-specific financial inclusion practices (Fungacova & Weill, 2015; Mitton, 2008). However, the results of these research do not facilitate cross-national and cross-regional comparisons.

The literature has clearly demonstrated that financial depth has a beneficial effect on growth and (reduced income) inequality (Levine et al., 2000; Beck et al., 2007). However, the research that does exist suggests that financial inclusion is linked to either economic development or inequality (Demirguc-Kunt et al., 2017). Better financial inclusion, for instance, can raise employment (Bruhn and Love, 2014), reduce rural poverty (Burgess and Pande, 2005), enhance spending (Dupas and Robinson, 2013), and save money (Brune et al., 2016). Therefore, increased financial inclusion may have positive welfare implications that go beyond financial gains to the actual economy.

The status of financial service accessibility is documented by national research (Beck et al., 2007): It demonstrates that national and institutional features, including more financial depth, close proximity of financial institutions, cheap account fees, or a robust legal framework, are associated with improved financial inclusion (Allen et al., 2016). Therefore, the supply side of financial markets has been the focus of country research on financial inclusion thus far. But shouldn't financial growth take into account more than only the many facets of the legal and financial infrastructure? What function does the demand side fulfill? It is likely that in order for financial markets to work, they require both knowledgeable consumers—that is, consumers with a higher level of financial literacy—and sound infrastructure. Customers who are well-informed make better financial decisions for their companies and themselves. They also promote the efficiency of the financial system by calling for financial inclusion and more advanced financial services. There appears to be a clear policy message here if financial literacy does have an impact on financial inclusion.

Of the two components of financial inclusion—access and use—the "access" component deals with the supply side, which covers things like bank branch proximity, financial depth, financial service costs, and the legal system, while the "use" component deals with the demand side, which discusses how customers use financial services. Both supply and demand sides are necessary for financial institutions to operate effectively; therefore, having informed clients who can make wise choices is just as crucial as having a strong financial infrastructure (Cole et al., 2011). As a result, the necessary financial literacy and knowledge are crucial for advancing financial inclusion, improving one's capacity to save, plan, and respond to financial shocks (Atkinson & Messy, 2011; Klapper et al., 2013), and working toward economic stability and the eradication of poverty (Furtado, 2018; Honohan, 2004; Jayaratne & Strahan, 1996; Kar et al., 2011).

A number of behavioural finance studies conducted by international scholars have focused on investment literacy, or investors' understanding of investments and their capacity to use this information. For instance, Dhar and Zhu (2006) investigated how an investor's disposition bias—the propensity to sell assets more rapidly when the price increases than when it decreases—was impacted by their level of investing literacy. They discovered that wealthy investors and experts had a low disposition bias after examining the trading history of a significant discount brokerage company in the United States. Additionally, Hastings and Tejada-Ashton (2008) conducted an experiment and survey to see how Mexican workers' investing knowledge influenced their decision to enroll in a defined-contribution pension plan.

III. RESEARCH METHODOLOGY

Respondents and Research Design

434 retail investors of Delhi, Chandigarh, Haryana, Punjab has been considered as sample or the study because it fairly represents the more 50% of the north region of India. This study uses the quantitative research design, which utilises a questionnaire to collect the information related to their investment literacy and socio-demographic information.

In this study questionnaire to measure investment literacy was adopted which was developed by Salem (2019).

IV. RESULTS AND DISCUSSION

Descriptive

Table 4.1: Descriptive Statics

INVESTMENT LITERACY					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below average	239	55.1	55.1	55.1
	Moderate	125	28.8	28.8	83.9
	High	70	16.1	16.1	100.0
	Total	434	100.0	100.0	

Table 1 presents the distribution of respondents across different levels of investment literacy. Out of the total 434 participants, a majority (239 respondents, 55.1%) fall into the below average category of investment literacy. This indicates that more than half of the sample lacks adequate knowledge and understanding related to investment concepts and practices. A considerable proportion of respondents (125 respondents, 28.8%) demonstrate a moderate level of investment literacy, suggesting partial awareness but limited depth in financial knowledge. Only a small segment (70 respondents, 16.1%) of the population exhibits a high level of investment literacy, reflecting advanced understanding and capability in investment-related decision-making.

The cumulative percentages further emphasize this pattern, with 83.9% of respondents being at or below the moderate literacy level. This skewed distribution highlights that investment literacy is relatively low among the surveyed group. The findings are significant because low investment literacy has been widely associated with poor financial decision-making, higher susceptibility to financial risks, and limited participation in formal investment avenues.

Table-2 Descriptive for investment avenues

		Frequency	Percent	Valid Percent	Cumulative Percent
Shares	Yes	434	100.0	100.0	100.0
Mutual funds	No	113	26.0	26.0	26.0
	Yes	321	74.0	74.0	100.0
	Total	434	100.0	100.0	
Fixed Deposit	No	314	72.4	72.4	72.4
	Yes	120	27.6	27.6	100.0
	Total	434	100.0	100.0	

Bonds	No	404	93.1	93.1	93.1
	Yes	30	6.9	6.9	100.0
	Total	434	100.0	100.0	
Public Provident Fund	No	386	88.9	88.9	88.9
	Yes	48	11.1	11.1	100.0
	Total	434	100.0	100.0	
National Pension Scheme	No	414	95.4	95.4	95.4
	Yes	20	4.6	4.6	100.0
	Total	434	100.0	100.0	
Senior Citizen Saving Scheme	No	432	99.5	99.5	99.5
	Yes	2	0.5	0.5	100.0
	Total	434	100.0	100.0	

Participation in Different Investment Avenues

Table 2 presents the distribution of respondents across a range of investment avenues. The findings reveal clear patterns in investment preferences among the 434 participants.

Shares

All respondents (100%) reported participation in shares, making it the most universally adopted investment avenue. This absolute participation suggests that the surveyed group considers equity markets as the foundation of their investment portfolios. Such unanimous involvement is unusual in general population studies, indicating either the specific profile of the sample (e.g., younger, more risk-taking, financially aware individuals) or a strong inclination towards capital market participation.

Mutual Funds

The second most widely chosen investment avenue is mutual funds, with 321 respondents (74%) investing in them, while the remaining 26% abstain. This finding highlights the growing acceptance of professionally managed collective investment schemes. Mutual funds, compared to direct equity, offer diversification and expert management, which may explain their substantial adoption rate.

Fixed Deposits

Fixed deposits (FDs), traditionally one of the most popular and secure instruments in India, were selected by only 120 respondents (27.6%), whereas the majority (72.4%) did not invest in them. This is a noteworthy departure from conventional patterns observed in general households, where FDs often dominate savings. The relatively low participation in FDs could be attributed to the respondents' preference for higher-yielding avenues such as equities and mutual funds.

Bonds

Participation in bonds is particularly low, with only 30 respondents (6.9%) investing in them. Despite being relatively secure and providing fixed returns, bonds appear to be a less attractive option for this sample. This suggests either a lack of awareness or the perception that bonds do not offer competitive returns compared to equities and mutual funds.

Public Provident Fund (PPF)

Only 48 respondents (11.1%) invest in PPF, a long-term government-backed saving scheme that is typically considered a safe option for tax-saving and retirement planning. The low adoption rate could reflect either the long lock-in period associated with PPF or limited interest in tax-saving instruments among this population.

National Pension Scheme (NPS)

Investment in the NPS is even lower, with just 20 respondents (4.6%) participating. Despite its focus on retirement security and government promotion, its complex structure and limited liquidity may discourage wider adoption among younger investors.

Senior Citizen Saving Scheme (SCSS)

The least chosen investment avenue is the Senior Citizen Saving Scheme, with only 2 respondents (0.5%) reporting participation. This is expected, as the scheme is designed specifically for senior citizens and therefore has limited relevance to a younger or working-age sample.

Crosstab and Chi-Square

Table-1 Crosstab and Chi-Square

		INVESTMENT LITERACY							
		Below average	Moderate	High	Total		Value	df	Asymptotic Significance (2-sided)
Mutual funds	No	65	29	19	113	Pearson Chi-Square	.734 ^a	2	0.693
	Yes	174	96	51	321	Likelihood Ratio	0.745	2	0.689
Total		239	125	70	434	Linear-by-Linear Association	0.085	1	0.771
Fixed Deposit	No	175	98	41	314	Pearson Chi-Square	9.021 ^a	2	0.011
	Yes	64	27	29	120	Likelihood Ratio	8.626	2	0.013
Total		239	125	70	434	Linear-by-Linear Association	2.821	1	0.093
Bonds	No	219	120	65	404	Pearson Chi-Square	2.441 ^a	2	0.295
	Yes	20	5	5	30	Likelihood Ratio	2.670	2	0.263

Total		239	125	70	434	Linear-by-Linear Association	0.702	1	0.402
Public Provident Fund	No	212	112	62	386	Pearson Chi-Square	.079 ^a	2	0.961
	Yes	27	13	8	48	Likelihood Ratio	0.079	2	0.961
Total		239	125	70	434	Linear-by-Linear Association	0.004	1	0.950
National Pension Scheme	No	225	122	67	414	Pearson Chi-Square	2.252 ^a	2	0.324
	Yes	14	3	3	20	Likelihood Ratio	2.471	2	0.291
Total		239	125	70	434	Linear-by-Linear Association	0.963	1	0.326
Senior Citizen Saving Scheme	No	238	125	69	432	Pearson Chi-Square	2.017 ^a	2	0.365
	Yes	1	0	1	2	Likelihood Ratio	2.079	2	0.354
Total		239	125	70	434	Linear-by-Linear Association	0.542	1	0.461

Association between Investment Literacy and Investment Avenues

To explore whether investment literacy influences the choice of specific investment avenues, a Chi-Square test of independence was conducted (Table 3). The analysis revealed that, for most avenues, there was no statistically significant association between the level of investment literacy and investment preferences. However, one exception was observed in the case of fixed deposits.

Mutual Funds

The Chi-Square value ($\chi^2 = 0.734$, $df = 2$, $p = 0.693$) indicates no significant association between investment literacy levels and participation in mutual funds. This suggests that individuals across all literacy categories—below average, moderate, and high—invest in mutual funds at similar rates. Mutual funds, therefore, appear to be equally attractive regardless of financial knowledge level.

Fixed Deposits

A significant association was observed between investment literacy and the use of fixed deposits ($\chi^2 = 9.021$, $df = 2$, $p = 0.011$). Respondents with high literacy (41.4%) showed a greater likelihood of using fixed deposits compared to those with below average (26.8%) and moderate (21.6%) literacy levels. This finding suggests that individuals with higher financial literacy may recognize the role of fixed deposits as a stable, risk-free component in their overall investment portfolio.

Bonds

The relationship between literacy and bond investment was not statistically significant ($\chi^2 = 2.441$, $df = 2$, $p = 0.295$). Investment in bonds is low across all groups, indicating that literacy levels do not substantially influence bond participation.

Public Provident Fund (PPF)

No significant association was found between literacy levels and PPF investment ($\chi^2 = 0.079$, $df = 2$, $p = 0.961$). Participation remains low across categories, suggesting that factors other than literacy (such as income, liquidity needs, or long lock-in periods) may explain the limited adoption of PPF.

National Pension Scheme (NPS)

Similarly, no significant association was observed for NPS ($\chi^2 = 2.252$, $df = 2$, $p = 0.324$). The low rate of adoption indicates that awareness or preference for pension-focused schemes remains limited across all literacy levels.

Senior Citizen Saving Scheme (SCSS)

The Chi-Square test ($\chi^2 = 2.017$, $df = 2$, $p = 0.365$) also revealed no significant association between literacy and SCSS participation. This outcome is expected, as SCSS is age-specific and unlikely to be influenced by financial literacy among younger or working-age participants.

Conclusion

The present study examined the investment literacy levels of respondents, their participation in various investment avenues, and the relationship between literacy and investment choices. The findings reveal several important patterns.

Firstly, investment literacy among respondents was found to be relatively low, with more than half (55.1%) classified as having below average literacy, while only 16.1% demonstrated high literacy. This distribution indicates that the majority of individuals may lack sufficient knowledge to make well-informed investment decisions.

Secondly, the analysis of investment avenues shows a clear preference for market-linked instruments. All respondents reported investment in shares (100%), and a large majority (74%) also invested in mutual funds. By contrast, participation in traditional and safer instruments such as fixed deposits (27.6%) and bonds (6.9%) was much lower. Similarly, long-term and retirement-oriented schemes such as PPF (11.1%), NPS (4.6%), and SCSS (0.5%) were adopted by only a small fraction of respondents. This suggests a strong inclination towards high-risk, high-return products while secure, long-term savings mechanisms remain underutilized.

Thirdly, the Chi-Square tests provided deeper insights into whether literacy influences investment choices. The results demonstrated that, in most cases, there was no significant association between investment literacy levels and participation in mutual funds, bonds, PPF, NPS, or SCSS. This indicates that knowledge differences did not translate into significant variation in the adoption of these products. The sole exception was found in the case of fixed deposits, where respondents with higher investment literacy showed a significantly greater tendency to invest. This implies that individuals with greater financial knowledge may be more aware of the stabilizing role of low-risk instruments and hence incorporate them as a safety net in their portfolios.

Taken together, the findings highlight three critical points. First, investment literacy remains limited, which can restrict individuals from making fully informed financial decisions. Second, despite this, respondents are strongly inclined toward equity and mutual funds, reflecting either greater risk appetite or possible social/institutional influences encouraging market-linked participation. Third, the limited and selective role of investment literacy—significant only in the case of fixed deposits—suggests that other factors such as income, demographic profile, product accessibility, and behavioural biases may play a stronger role in shaping investment behaviour than literacy alone.

Overall, the study concludes that while improving investment literacy is essential, it may not independently drive balanced financial decision-making. Literacy initiatives should therefore be complemented by efforts to increase awareness of retirement-oriented schemes, improve accessibility to diverse financial products, and address behavioural factors influencing investment choices. Such combined interventions can help individuals create more diversified and resilient investment portfolios, ultimately enhancing their financial security.

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