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Economic Annals-XXI, 215(5-6), 10-15. doi: <https://doi.org/10.21003/ea.V215-02>**Khamidulla Kholikov**

PhD (Economics),

Department of Licensing and Permitting Procedures,  
Central Bank of the Republic of Uzbekistan

6 Islam Karimov Str., Tashkent, 100001, Uzbekistan;

Department of Corporate Finance and Securities,

Tashkent State University of Economics

49 Islom Karimov Str., Tashkent, 100066, Uzbekistan

[khamidulla\\_kholikov@cbu.uz](mailto:khamidulla_kholikov@cbu.uz)[h.kholiqov@tsue.uz](mailto:h.kholiqov@tsue.uz)ORCID ID: <https://orcid.org/0009-0004-6425-4664>

## Studying the risk-taking of financial market investors and its relationship with financial literacy

**Abstract.** This study tried to investigate the association between financial literacy and investors' risk-taking behavior in the capital market of Uzbekistan. This study was a descriptive-correlational one, and data collection was done through a standardized questionnaire from 450 active investors during 2024-2025. The results of this study indicated that the association between financial literacy and risk-taking is positive and significant. Multivariate regression analysis also confirmed financial literacy as the strongest predictor of the risk-taking behavior. Specifically, whereas investors with higher financial literacy were not risk-averse, they tended towards more profitable opportunities, having a deeper understanding of the market. Segment-level results show that the high-risk (aggressive) group reported the highest mean return (12.3%), whereas the sample-wide mean annual return was 9.4%. The results stress the importance of developing sophisticated financial education programs in order to enhance informed decision-making by active investors.

**Keywords:** Financial Literacy; Risk-Taking; Investor; Uzbekistan Capital Market; Portfolio; ROI; Profit

**JEL Classifications:** G11; G41; D14; D91

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### 1. Introduction and Brief Literature Review

In today's complex and interconnected financial world, investor decisions are the driving force behind the activity of capital markets. These decisions, often made under conditions of uncertainty, are inherently associated with a degree of risk (Shroff et al., 2024). Understanding factors that influence investors' behavior in taking risks has broad theoretical and practical implications for the stability of financial markets. Meanwhile, the role of financial literacy as a key factor in moderating or exacerbating this risk-taking is one aspect that has to be considered in greater detail (Chauhan et al., 2025). On the other side, the internationalization of the economy and the fast diffusion of new financial instruments have raised the level of complexity in investment choices to an unprecedented level. The individual investor of today has to choose among a wide range of options, which include everything from stocks and bonds to cryptocurrencies and structured products (Aydemir & Aren, 2017; Ali et al., 2024). This dynamic environment pushes ordinary citizens to participate in financial markets, while many might lack the literacy to correctly perceive the risks. This knowledge gap may result in poor decision-making and subsequent financial vulnerability (Akhtar & Malik, 2023; Nasirov et al., 2025).

From the perspective of human development, increased financial literacy is not only an economic skill but also part of empowering the citizenry for full participation in the economy (Ghimire & Silwal, 2025). Once they have adequate knowledge to analyze investment opportunities, as well as related risks, they can act more independently and responsibly in their capital allocation

(Setiawan et al., 2025). This, in turn, leads to efficient resource allocation and, finally, sustainable economic growth. Finally, it should be acknowledged that despite the remarkable number of international studies in this domain, results are very often shaped by the institutional specifics, cultural features, and economic particularities of the countries where these studies are conducted (Ramandhanty et al., 2021). Thus, generalizing across such a unique environment as Uzbekistan should be made with great caution. A local study analyzing these variables in its target population would enrich not only the scientific content of the literature on the subject but also build a sound empirical ground for domestic stakeholders (Abdurakhmanova & Xodjaraxmanova, 2025).

Therefore, this study has been designed to bridge the existing gap in the literature and present an exploratory study into the complex link between financial knowledge and risk-taking behavior in the Uzbek capital market. This research output will be instructive for policymakers, institutions of learning, and even investors in their quest to ensure a transparent, efficient, and fair financial environment. This scientific work is one such necessary step toward gaining greater insight into the financial behavior of people in a transition economy.

## 2. Methodology

This study is conducted using a descriptive-survey and correlational research design, considering the exploratory nature of the research and its intention to investigate the relationship between the financial literacy variables and risk-taking behavior during 2024-2025. The statistical population of this study includes individual investors in the Uzbek capital market who were selected from the main brokerage firms of Tashkent and Samarkand using a multi-stage cluster sampling method.

Data for this study were collected using a standard self-report questionnaire, already translated and localized into Uzbek. The questionnaire was administered online and through cooperation with brokerage firms, with full observance of ethical considerations, informed consent, and confidentiality of data ensured.

The analysis of data and the testing of the research hypotheses were undertaken through SPSS software, version 26. First, descriptive statistics reporting mean, standard deviation, and frequency distribution were presented for all variables, giving an overall picture of the characteristic features of the research sample. Next, Pearson's correlation coefficient and multivariate linear regression analysis were applied to study the relationship between financial literacy and various dimensions of risk-taking.

## 3. Results

The empirical results are presented in this section, and the structure is such that first the characteristics of the sample are described, followed by the core analyses: the relationships between financial literacy, its components, and risk-taking propensity.

In the sample of 450 individual investors, 60% were male participants, and 45.1% of the total fell within the age bracket of 31 to 45 years, thus relatively experienced and middle-aged. The largest proportion of respondents, 41.1%, had between 2 to 5 years of investment experience, a fact that makes the sample neither completely novice nor thoroughly seasoned (Table 1).

The average financial literacy score shown in Table 2 was 68.5 out of a possible 100, while the standard deviation of about 12.3 points indicated considerable dispersion in financial knowledge among respondents. The average risk-taking propensity stood at 5.7 out of 10, whereas the average self-reported annual portfolio return stood at 9.4%. Figure 1 visually captures the distribution of the main independent variable and represents the composition of the aggregate financial literacy score based on its core components.

Table 1:  
**Descriptive Statistics of the Sample (N = 450)**

Variable	Category	Frequency	Percentage (%)
Gender	Male	270	60.0
	Female	180	40.0
Age Group	18-30 years	135	30.0
	31-45 years	203	45.1
	46-60 years	90	20.0
	Above 60 years	22	4.9
	Less than 2 years	158	35.1
Investment Experience	2-5 years	185	41.1
	More than 5 years	107	23.8

Source: Author's own survey

Table 2:  
**Descriptive Statistics of Key Continuous Variables**

Variable	Mean	Standard Deviation	Minimum	Maximum
Total Financial Literacy Score	68.5	12.3	32	95
Risk-Taking Propensity	5.7	2.1	1	10
Annual Portfolio Return (%)	9.4	5.8	-15	28

Source: Author’s own findings

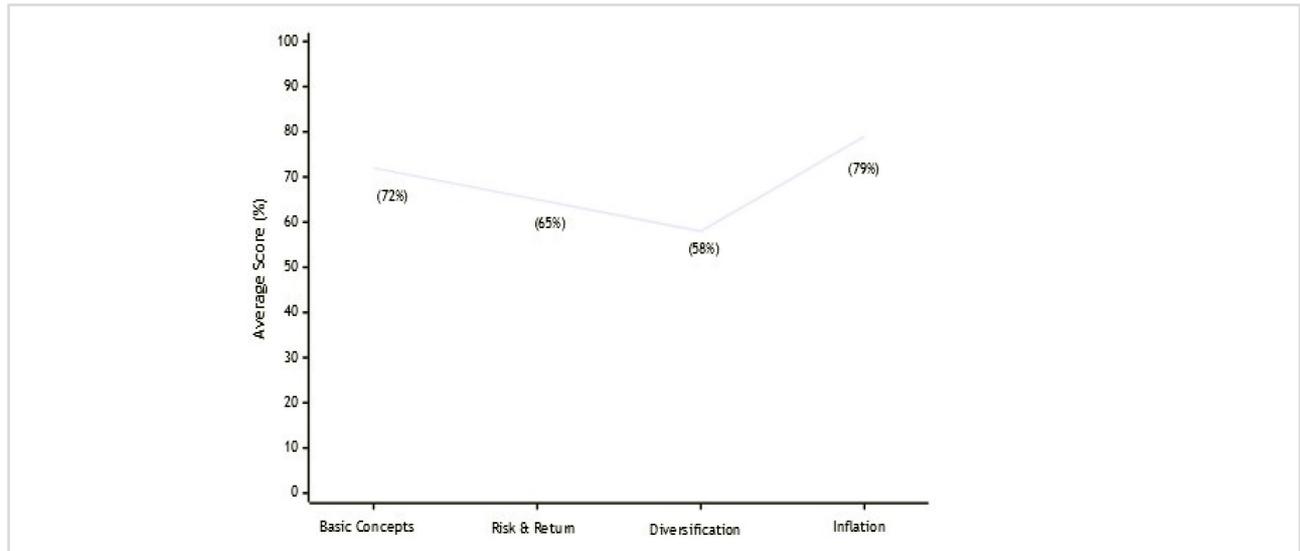


Figure 1:  
**Composition of Average Financial Literacy Score by Core Components (%)**  
Source: Author’s own findings

Figure 1 breaks the overall score down into basic elements of financial literacy. It shows that, in the sample, the understanding of basic concepts about money and inflation was reasonably strong, while knowledge items related to the notions of risk and return, and especially the principle of diversification, demonstrated significantly lower average scores, reflecting potential points of vulnerability concerning more complex concepts of financial decision-making.

The correlation matrix in Table 3 indicates several statistically significant correlations. The results show that financial literacy and risk-taking propensity are positively and significantly correlated with each other;  $r = .38, p < .01$ . This may give support to the notion that investors who are financially more knowledgeable report higher willingness to take risks. Moreover, financial literacy and risk-taking propensity are positively and significantly correlated with portfolio returns.

Table 3:  
**Pearson Correlations between Key Variables**

Variable	1	2	3	4
1. Financial Literacy	1			
2. Risk-Taking Propensity	.38**	1		
3. Investment Experience	.45**	.25**	1	
4. Portfolio Return	.41**	.52**	.31**	1

Note: \*\*  $p < .01$ .

Source: Author’s own findings

A multiple linear regression in Table 4 was conducted to predict risk-taking propensity. Model was statistically significant,  $F(4.445) = 24.91, p < 0.001$ , & explained approximately 18% of the variance in risk-taking (Adjusted  $R^2 = 0.18$ ). Financial literacy emerged as the most powerful unique positive predictor,  $\beta = 0.312, p < 0.001$ , thereby confirming its significant contribution independently even after accounting for other variables. Investment experience and male gender served as other positive predictors, whereas age had a small but significant negative relationship by risk-taking.

When investors are segmented by their risk-taking profile, a clear gradient emerges. Accordingly, investors in the «Aggressive» category had the highest average financial literacy score of 75.1, while the «Moderate» and «Conservative» groups trailed in that order. A similar, more

Table 4:  
**Regression Model Predicting Risk-Taking Propensity**

Predictor Variable	B	SE	$\beta$	t	p-value
(Constant)	1.245	0.521		2.389	0.017
<b>Financial Literacy</b>	0.048	0.007	0.312	6.857	< 0.001
<b>Investment Experience</b>	0.112	0.045	0.118	2.489	0.013
<b>Age</b>	-0.025	0.009	-0.128	-2.778	0.006
<b>Gender</b>	0.315	0.152	0.095	2.072	0.039

Note:  $R^2 = 0.19$ , Adjusted  $R^2 = 0.18$ ,  $F(4.445) = 24.91$ ,  $p < 0.001$ .

Source: Author’s own findings

pronounced gradient is observed for average portfolio returns (Table 5). Relationship between these segments is further clarified in Figure 2, which plots mean portfolio return against mean financial literacy score for each group.

Figure 2 shows the strong, positive correlation between the investor’s risk profile, their financial literacy, and, consequently, their portfolio performance. The almost parallel path that both lines take suggests that higher returns associated with more aggressive profiles are closely related to their concurrently higher levels of financial understanding—a sign of more calculated risk rather than speculation.

A one-way ANOVA in Table 6 was conducted to compare the influence of investment experience on financial literacy. A statistically significant difference in financial literacy scores was found among at least two groups:  $F(2.447) = 28.74$ ,  $p < 0.001$ . Post-hoc tests showed that the mean score for each group was significantly higher than that of the preceding group, thus suggesting that practical experience in the financial markets is associated with greater financial knowledge.

Table 5:  
**Investors Grouped by Risk-Taking Profile**

Profile	Financial Literacy (Mean)	Portfolio Return (Mean)	% of Sample
<b>Conservative</b>	61.2	6.1%	32%
<b>Moderate</b>	68.8	9.5%	41%
<b>Aggressive</b>	75.1	12.3%	27%

Source: Author’s own findings

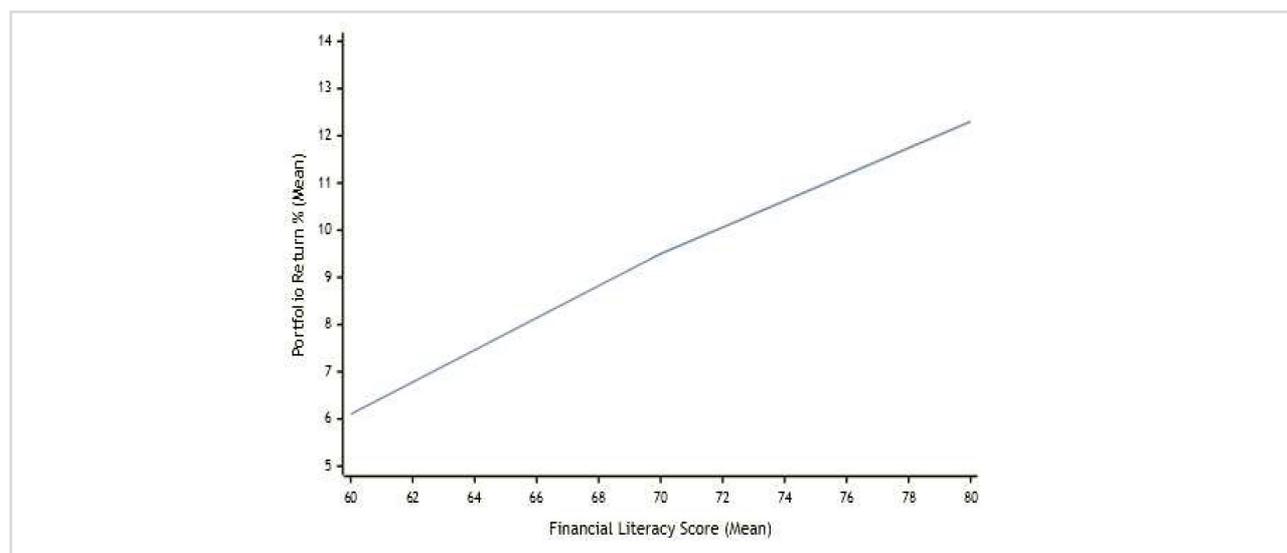


Figure 2:  
**Relationship of financial literacy and portfolio return across investor risk profiles**

Source: Author’s own findings

Table 6:  
**ANOVA of Financial Literacy by Investment Experience**

Experience Group	N	Mean Score	Std. Deviation	F	p-value
<b>&lt; 2 years</b>	158	62.1	11.9	28.74	< 0.001
<b>2-5 years</b>	185	69.3	10.5		
<b>&gt; 5 years</b>	107	73.8	9.8		

Source: Author’s own findings

Primary asset allocation in Table 7 represents a definite bias towards certain assets depending on the risk profile: low-risk assets are favored by conservative investors, mostly savings accounts and bonds; moderate investors heavily prefer blue-chip stocks, while aggressive investors show a big allocation to higher-risk assets like foreign ETFs and cryptocurrencies. This corresponds well with their stated risk propensity and their higher financial literacy scores.

Table 7:  
**Top 3 Investment Choices by Risk Profile (%)**

Asset Class	Conservative	Moderate	Aggressive
Savings Accounts / Bonds	75%	45%	15%
Blue-Chip Stocks	20%	48%	55%
Foreign ETFs / Crypto	5%	7%	30%

Source: Author's own findings

#### 4. Conclusion

The present study investigates the relationship between financial literacy and the risk-taking behavior of investors within the context of the Uzbek capital market. Our quantitative results, obtained from the analysis of data collected from 450 active investors, clearly indicate a positive and significant relationship between the level of financial literacy and the willingness to accept risk. This is supported by the correlation coefficients and especially the regression results, which introduce financial literacy as the strongest positive predictor of risk-taking.

The findings of this study confirm and emphasize the complexity of the literature on the subject. Contrary to the simplified view that higher financial literacy invariably leads to risk aversion, our results indicate that higher financial literacy is associated with «calculated risk-taking». Evidence for this comes from the investor groupings data, which indicates that the «high-risk» group had not only the highest mean financial literacy score (75.10) but also the highest mean portfolio returns (12.3%). This finding suggests that higher financial literacy is associated with higher risk-taking and higher self-reported returns. The multivariate regression analysis, apart from financial literacy, demonstrated the moderating role of demographic variables. Investment experience and gender appeared as significant positive predictors, while age was a negative predictor in the model. This indicates that risk appetite among our sample investors was greater for those with longer experience, men, and younger.

The limitations of the present study bear consideration for generalization from results. First, the cross-sectional nature of the data does not allow for inferences of definitive causality. Second, the reliance on a self-report questionnaire may make the study subject to bias. Third, though cluster sampling was used, the study's geographical focus on two major cities has the potential to affect the generalizability to the entire country. A focus on addressing these limitations could be the goal of future research. The findings of this study also have important practical implications for the capital market policy authorities, educational institutions, and investors themselves in Uzbekistan. The results imply that investment in financial education programs should go beyond the basic concepts to a more profound understanding of risk, diversification, and complex financial instruments. This is how a generation of informed investors could be brought up, capable of making better financial decisions that would eventually help create a mature, efficient, and stable capital market in the country.

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