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Islom Ergashev
PhD (Economics),
Department of Economy,
Samarkand State University named after Sharof Rashidov
15 University Blvd., Samarkand, 140104, Uzbekistan
stern7977@gmail.com
ORCID ID: <https://orcid.org/0009-0006-3741-4989>



Zukhra Jumanova
MA (Computer Engineering),
Senior Lecturer, Department of Cybersecurity,
Faculty of Engineering, Cyber University
52 Yangiobod Str., Nurafshon, Tashkent region, 111500, Uzbekistan
zuxrajumanova10@gmail.com
ORCID ID: <https://orcid.org/0009-0008-0564-3108>



Bakhtigul Isakulova
PhD (Education),
English Language Department of Applied Disciplines No. 3,
Uzbekistan State World Languages University
104 Chilanzor Str., Mukumi district, Tashkent, 100173, Uzbekistan
isakulovabakhtigul@gmail.com
ORCID ID: <https://orcid.org/0009-0008-9409-8286>



Nodira Namazova
PhD (Economics),
Associate Professor,
Bukhara State Medical Institute
23 Gijduvan Str., Bukhara, 200126, Uzbekistan
namazova.nodira@bsmi.uz
ORCID ID: <https://orcid.org/0009-0005-1715-4959>



Eldor Korabayev
PhD (Information Technology),
Department of Information Security,
Tashkent University of Information Technologies named after Muhammad al-Khwarizmi
108 Amir Temur Str., Tashkent, 100200, Uzbekistan
doda.uzb@gmail.com
ORCID ID: <https://orcid.org/0009-0005-7625-2364>



Dilrabo Akhmedova
PhD (Economics),
Department of Economics,
Mamun University
2 Bolkhovuz Str., Khiva, Khorezm region, 220900, Uzbekistan
axmedova_dilrabo@mamunedu.uz
ORCID ID: <https://orcid.org/0009-0000-7631-7715>

Studying of knowledge management and information literacy with organizational entrepreneurship in Uzbekistan's knowledge-based companies

Abstract. This study was conducted to investigate the relationship between knowledge management and information literacy with organizational entrepreneurship among knowledge-based companies in Uzbekistan. The present study was descriptive-correlational and data were collected from 245 employees of knowledge-based companies in 2024. The results of this study showed that there was a positive and significant relationship between knowledge management and organizational entrepreneurship ($r = 0.682$). Also, there is a positive and significant relationship between information literacy and organizational entrepreneurship ($r = 0.645$). Regression analysis showed that these two variables explain a total of 51.9% of the variance in organizational entrepreneurship, in which the contribution of knowledge management ($\beta = 0.405$) was more than that of information literacy ($\beta = 0.328$). Among the different dimensions, the components of knowledge creation and information identification obtained the highest average. These findings emphasize the necessity of simultaneously strengthening knowledge management and information literacy as key factors in the development of organizational entrepreneurship.

Keywords: Knowledge Management; Information Literacy; Organizational Entrepreneurship; Knowledge-Based Company; Business; Innovativeness; Proactiveness; Risk-taking

JEL Classifications: E24; E41; E64; I18; J28; J31

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1. Introduction and Brief Literature Review

In today's turbulent world, with the global economy rapidly moving toward a knowledge-based economy, countries and organizations are looking for solutions to maintain their competitive advantage and insure survival and growth (Ashouri & Boroumand, 2014). In the meantime, knowledge-based companies are acting as an important engine of innovation and economic development. These companies regard their main asset not in machinery and physical resources but in the intellectual capital and knowledge hidden in their human resources (Heydarian, 2020). Their success depends on the capability of creating, managing, and effectively applying this knowledge. In this context, the present study has investigated the relationship between knowledge management and information literacy, with organizational entrepreneurship in knowledge-based companies (Nasridinov et al., 2025).

The significance and necessity of this research may be considered from several viewpoints of paramount importance. First, Uzbekistan is a country with huge economic potential and a relatively young population that has made great strides in recent years toward economic reforms and private sector development (Norbutaev & Sultan, 2025). The government, considering that it is necessary to move from a resource-based economy to a knowledge-based one, has paid special attention to the creation of an entrepreneurial ecosystem and support for knowledge-based companies (Kosasih et al., 2023). However, it is not the political will and investment that will enable this, but such companies need to develop an in-depth understanding of the internal mechanisms through which they can innovate and keep creating value continuously in a competitive environment (Begmatova, 2025).

This is where the role of knowledge management as a systematic strategy becomes visible. Knowledge management helps organizations to identify, store, share, and apply their knowledge assets (Jurayeva, 2024). The result of such processes in a knowledge-based company can be anything from coming up with new ideas to improving processes and developing new products and services. However, knowledge management in itself is not sufficient (Ergasheva, 2021). This framework requires a context in which finding, evaluating, and using information intelligently are possible; this is where information literacy comes into play. Information literacy, or the skillset that enables people to identify their information needs, find relevant and credible information, critically evaluate it, and apply it in the appropriate context, provides foundation for learning & knowledge-based organization.

A combination of these two enablers—knowledge management and information literacy—can provide very fertile ground for organizational entrepreneurship. Organizational entrepreneurship implies the fostering of a spirit of innovation, risk-taking, and proactivity within the boundaries of the organization (Sivathanu, 2016). It is the force that enables a knowledge-based company to identify new opportunities, respond to changed markets, and develop new business models. Without an effective knowledge management system, new ideas may be lost or never reach completion, and without information literacy, employees may be paralyzed by information or unable to distinguish between useful and useless information, which hampers the process of decision-making and innovation (Amiri et al., 2025).

Therefore, grasping the dynamic relationship among these three variables is not only an academic choice but also a strategic necessity for knowledge-based Uzbek companies. The present study tries to fill this literature gap in the specific context of Uzbekistan. By providing fresh evidence on how different dimensions of organizational learning are related to individual innovative work behavior and intra-organizational entrepreneurship, the findings of this study can help policymakers to design appropriate training programs and organizational strategies to strengthen the capacity of intra-organizational entrepreneurship and make a tangible contribution to the sustainable and knowledge-based economic development of Uzbekistan.

2. Methodology

This study, carried out within a quantitative and descriptive-correlational methodological framework, investigates the association of knowledge management, information literacy, and organizational entrepreneurship in knowledge-based companies in Uzbekistan. The key objective is to identify and measure the strength and direction of the relationship between the studied variables in the particular economic and cultural context of this country. The study's target population includes all knowledge-based active companies throughout Uzbekistan involved in information technology, biotechnology, engineering, and specialized services in 2024. Therefore, the sample size was calculated and determined by appropriate statistical formulas with respect to a 95% confidence level.

The proposed questionnaire had four main parts. The first part was dedicated to demographic information about respondents and companies. The second part of the questionnaire contained knowledge management measurement scales, knowledge creation, knowledge sharing, and knowledge application components. The third part measures the level of information literacy of employees and measures their capabilities to identify, access, evaluate, and use information ethically. The last part of the questionnaire measured organizational entrepreneurship variable through innovation, pioneering, and risk-taking. The content and face validity of the questionnaire was confirmed by several management experts, and its reliability was obtained through calculating Cronbach's alpha coefficient in a preliminary study. In the first stage, the general features of the data were summarized and presented through descriptive statistics. Then, in a second stage, inferential statistics methods were used, such as Pearson's correlation coefficient and multiple regression analysis, to test the hypotheses of the research and investigate the relationship among variables.

3. Results

The following section contains the empirical findings of the investigation that was conducted on the relationship between knowledge management, information literacy, and organizational entrepreneurship in Uzbek knowledge-based companies. The analysis will follow the sequence from descriptive statistics to the inferential analyses that enable a more comprehensive picture from the data.

The demographic profile presented in Table 1 shows a representative sample of professionals from knowledge-based companies in Uzbekistan. The sample comprises 245 respondents, with a slightly higher proportion of male participants (58%). The majority of respondents (44.1%) belong to the 31-40 age group, indicating a relatively experienced workforce. Educationally, over half of the participants (51%) hold Master's degrees, reflecting the highly qualified nature of employees in this sector.

Table 2 displays the descriptive statistics and reliability coefficients for the main constructs. All variables demonstrate acceptable reliability with Cronbach's Alpha values exceeding 0.85. Information literacy shows the highest mean score ($M = 4.25$, $SD = 0.59$), followed by knowledge management ($M = 4.12$, $SD = 0.68$). The consistently high mean scores across all constructs suggest that respondents generally reported positive perceptions of these organizational capabilities.

The correlation analysis reveals significant positive relationships among all major variables, as shown in Table 3. Knowledge management demonstrates a strong positive correlation with organizational entrepreneurship ($r = 0.682$), while information literacy also shows a substantial correlation with organizational entrepreneurship ($r = 0.645$). The strongest correlation exists between

Table 1:
Sample Demographic Profile (N = 245)

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	142	58.0%
	Female	103	42.0%
Age	20-30	85	34.7%
	31-40	108	44.1%
	41-50	42	17.1%
	Over 50	10	4.1%
	Bachelor	102	41.6%
Education Level	Master	125	51.0%
	PhD	18	7.3%

Source: Authors' own survey results

Table 2:
Descriptive Statistics and Reliability Coefficients

Construct	No.	Mean	SD	Cronbach's Alpha
Knowledge Management	15	4.12	0.68	0.91
Information Literacy	12	4.25	0.59	0.89
Organizational Entrepreneurship	10	3.98	0.72	0.88

Source: Authors' own findings

Table 3:
Pearson Correlation Matrix ($p < 0.01$)

Variable	1	2	3
1. Knowledge Management	1		
2. Information Literacy	0.714	1	
3. Organizational Entrepreneurship	0.682	0.645	1

Source: Authors' own findings

knowledge management and information literacy ($r = 0.714$), suggesting these two constructs are closely related in the sampled organizations.

Figure 1 illustrates the mean scores across various dimensions of the main constructs, showing particularly strong performance in information identification and knowledge creation areas.

The regression model (Table 4) examining the combined effect of knowledge management and information literacy on organizational entrepreneurship proves statistically significant ($F = 132.67, p < 0.001$), accounting for 51.9% of the variance in organizational entrepreneurship. Both knowledge management ($\beta = 0.405, p < 0.001$) and information literacy ($\beta = 0.328, p < 0.001$) emerge as significant positive predictors, with knowledge management showing a slightly stronger influence.

Table 5 provides analysis of sub-dimensions for each major construct. In knowledge management, knowledge creation scores highest ($M = 4.25$), while in information literacy, information identification shows strongest results ($M = 4.32$). For organizational entrepreneurship, innovativeness emerges as most developed dimension ($M = 4.05$), with risk-taking being least developed among three dimensions.

Table 6 presents the comparison of different models concerning their explanatory power. Model 3 is the combined model, which exhibits better predictive capability with 52.4% of the variance in organizational entrepreneurship explained. Correspondingly, with the addition of information literacy to knowledge management, the overall R^2 changed significantly ($\Delta R^2 = 0.059, p < 0.01$), indicating that information literacy uniquely contributes to organizational entrepreneurship beyond what knowledge management alone would provide.

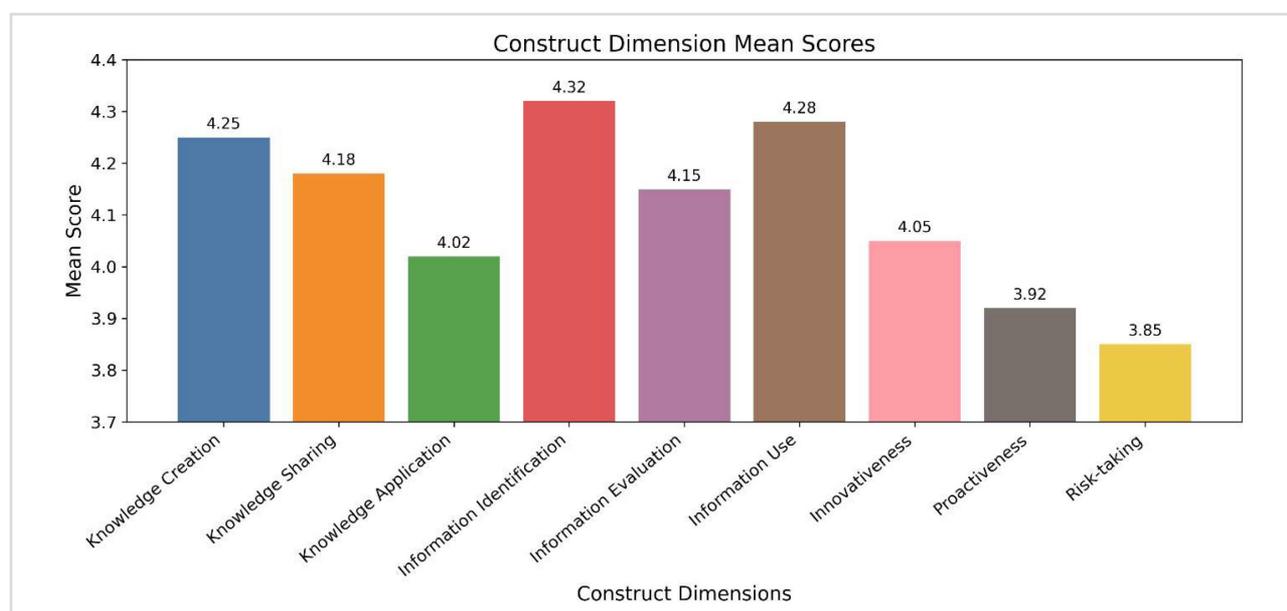


Figure 1:
Comparative Analysis of Construct Dimensions
Source: Authors' own findings

Table 4:
Regression Analysis for Organizational Entrepreneurship

Predictor	B	SE	β	t	p
Constant	0.452	0.185		2.443	0.015
Knowledge Management	0.428	0.062	0.405	6.903	0.000
Information Literacy	0.351	0.067	0.328	5.239	0.000

$R^2 = 0.524$, Adjusted $R^2 = 0.519$, $F = 132.67$, $p = 0.000$

Source: Authors' own findings

Table 5:
Dimensions Results

Dimension	Mean	SD	Dimension	Mean	SD	Dimension	Mean	SD
<i>Information Literacy</i>			<i>Organizational Entrepreneurship</i>			<i>Knowledge Management</i>		
Information Identification	4.32	0.58	Innovativeness	4.05	0.74	Knowledge Creation	4.25	0.64
Information Access	4.21	0.63	Proactiveness	3.92	0.78	Knowledge Sharing	4.18	0.71
Information Evaluation	4.15	0.67	Risk-taking	3.85	0.81	Knowledge Storage	4.05	0.73
Information Use	4.28	0.61	-	-	-	Knowledge Application	4.02	0.69

Source: Authors' own findings

Table 6:
Comparison of Regression Models

Model	Predictors	R^2	ΔR^2
1	Knowledge Management only	0.465	-
2	Information Literacy only	0.416	-
3	KM + IL	0.524	0.059

Source: Authors' own findings

Taken together, the findings reveal strong associations between knowledge management capabilities, information literacy competencies, and organizational entrepreneurship outcomes in the context of Uzbek knowledge-based companies. The results thus empirically validate the theoretical framework for this study.

4. Conclusion

The present study aimed to investigate the relationship between knowledge management and information literacy with organizational entrepreneurship in knowledge-based companies in Uzbekistan. The results of this study indicate quite clearly that these three variables are related to each other significantly and positively. The statistical analysis results not only prove the hypotheses of this research but also give important insights into mechanisms affecting strengthening of entrepreneurship in knowledge-based organizations. In addition, the correlation analysis indicated that knowledge management is strongly and directly related to organizational entrepreneurship, with a correlation coefficient of 0.682. The results of the regression analysis explain 51.9% of the organizational entrepreneurship variance: knowledge management has a greater contribution in the prediction of organizational entrepreneurship with a beta coefficient of 0.405. This implies that though both predictor variables are important, the role of knowledge management is outstandingly predominant in enhancing organizational entrepreneurship. The unique contribution of information literacy, however, stands at a beta coefficient of 0.328, indicating that these two variables complement each other. The analysis of various dimensions of the variables indicated that among the knowledge management components, «knowledge creation» with an average of 4.25, and among the information literacy components, «information identification» with an average of 4.32 attained highest scores.

These results suggest that Uzbek knowledge-based companies have appropriate performances in creating knowledge and identifying the need for information; however, they need to develop in the areas of «knowledge storage» and «information evaluation». In the end, it can be said that strengthening knowledge management and information literacy can provide an appropriate platform for the development of organizational entrepreneurship in knowledge-based firms in Uzbekistan. This study, while highlighting the role of knowledge management and information literacy as drivers of the development of entrepreneurial ecosystems at the national level, encourages the managers and policymakers to invest in the development of knowledge management systems and training in information literacy skills, providing the necessary basis for innovation and entrepreneurship reinforcement.

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