Iranian Distance Education Journal **Open Access**

winter-Spring (2025) 7 (1): 103-113
DOI: 10.30473/IDEJ.2025.67116.1240

ORIGINAL ARTICLE

Explaining the effect of knowledge management empowerment through distance learning on the performance and organizational intelligence of middle school administrators in Nimroz city

AliReza Vasefi[1], GholamHasan Panahi[2]

1. M.Sc., Educational Management, Department of Educational Sciences, Zahedan Branch, Islamic Azad University, Zahedan, Iran
2. Department of educational sciences, farhangian University, Tehran, iran

Correspondence:
GholamHasan Panahi
Email:
Gh.h.panahi@gmail.com

Received: 16/May/2025
Accepted: 28/July/2025

How to cite:
Vasefi, A; Panahi, Gh; (2025)., xplaining the effect of knowledge management empowerment through distance learning on the performance and organizational intelligence of middle school administrators in Nimroz city, **Iranian Distance Education Journal**, 7 (1), 103-113.
DOI: 10.30473/IDEJ.2025.67116.1240

ABSTRACT

This study aimed to explain the effect of knowledge management empowerment through distance learning on the performance and organizational intelligence of middle school principals in Nimruz city. The present research is applied in terms of purpose and quantitative in nature, specifically of the descriptive-correlational type. The statistical population consisted of all middle school principals in the Nimruz Education Department during the 2023–2024 academic year, and a total of 24 principals (12 males and 12 females) were selected as the sample using the census method. Data collection instruments included Nonaka and Takeuchi's (1995) Knowledge Management Questionnaire, Yazdani Nejad's (2009) Principals' Performance Questionnaire, and Albrecht's (2002) Organizational Intelligence Questionnaire. The collected data were analyzed using SPSS26, employing descriptive statistics such as tables and charts to represent demographic characteristics, and inferential statistics including Pearson correlation coefficient and regression analysis for hypothesis testing. Following data collection, normality of data distribution was examined using the Kolmogorov-Smirnov test. The results indicated significant positive relationships between the components of knowledge management through distance learning and principals' organizational performance, as well as between knowledge management components and overall knowledge management scores with principals' organizational intelligence. Specifically, empowerment in the knowledge application component affected principals' organizational performance, while empowerment in knowledge sharing and application components influenced all dimensions of organizational intelligence ($p \leq 0.05$). Therefore, the education system, by expanding and implementing virtual networks and distance learning via platforms such as Skyroom, can create a dynamic environment enabling principals to enhance their knowledge, generate new ideas, and acquire new insights.

KEYWORDS

Distance learning, organizational intelligence, knowledge management, organizational performance, school principals

EXTENDED ABSTRACT

Introduction

Intelligence plays a crucial role in the social structure (Kesti et al., 2011). Recent psychological research has focused on examining individual intelligence, exploring its nature, and attempting to define it (Bates et al., 2004). Intelligence is generally defined as the ability to learn, reason, and perceive (Lord et al., 2011). Furthermore, intelligence refers to an individual's capacity to assess and control their knowledge regarding environmental data, reconstruct new knowledge, transform data into experiences, and achieve goals effectively and efficiently (Fleishman et al., 1991). Enhancing organizational intelligence is essential for improving innovation capacity. Moreover, managerial activities and performance should focus on organizational intelligence to ensure the survival of the organization. Organizational intelligence pertains to managing cognitive capabilities within business and governmental sectors. Although comprehensive studies on organizational intelligence are limited, psychological research on intelligence has laid the foundation for organizational intelligence studies.

Organizational intelligence was first introduced by Matsuda in an article entitled "Organizational Intelligence: Its Importance as a Process and Product." Matsuda conceptualized organizational intelligence as a combination of human and machine intelligence, divided into five components: organizational cognition, organizational memory, organizational learning, organizational communication, and organizational reasoning (Ardalan, 2012). In essence, organizational intelligence represents the cognitive ability to address organizational issues and focuses on integrating human and mechanical capabilities to solve problems (Soltani et al., 2020).

Another key variable in this study is organizational performance, defined as improving the quality of education, consolidating religious beliefs, enhancing efficiency and effectiveness, strengthening academic motivation, and promoting educational equity (Yazdani Nejad, 2009). Organizational performance is a multidimensional concept with administrative indicators, such as financial indices, marketing efficiency, product suitability, growth, and profitability, which can be measured using objective or subjective indicators. Organizational performance refers to achieving organizational and social goals or exceeding them and fulfilling assigned responsibilities. Performance management encompasses three main actions:

1. **Performance Planning:** Setting goals and guidelines for subordinates at the beginning of the planning cycle and designing plans to achieve these goals;
2. **Training:** Providing daily feedback and developmental activities to reinforce performance strategies;
3. **Performance Review:** Conducting overall evaluation of performance for a specific planning period.

A contextualized approach to performance management enables managers to individually apply performance planning, training, and review techniques suited to the unique situations faced by their subordinates (Rahmdel, 2019). In schools with ineffective leadership and management, educational tasks are not executed as effectively as in schools with effective leadership, where teachers, staff, and students are highly motivated and aware of their goals. Organizational intelligence, as a school capacity, significantly affects the success and effectiveness of school management (Abdollahi et al., 2014).

In educational environments, managers face challenges that require organizational intelligence and contextually appropriate decision-making. Human resource training is a central objective of organizations, and modern approaches such as virtual learning enhance organizational learning efficiency. Knowledge management (KM) has emerged as a novel construct in organizational learning frameworks (Anbari et al., 2022).

Distance learning refers to a type of education in which physical separation exists between the instructor and the learner, and most or all communication occurs via electronic or printed media. Its significance is highlighted by increasing educational access, providing opportunities for learners who have missed formal education, strengthening scientific and technical human resources, enhancing educational quality, and offering professional development opportunities for staff (Aslan Forutan, 2023). With the advancement of

communication technologies and the growing need for continuous learning in dynamic conditions, distance learning has become a primary educational method worldwide. Platforms such as Skyroom provide a local and powerful virtual environment for conducting interactive classes, workshops, and meetings safely and effectively.

In today's information society, human capital has gained greater importance than economic capital. Knowledge management and communication management are among the most critical organizational concerns, emphasizing the integration and distribution of resources to improve organizational performance and enhance competitive advantage. When knowledge is freely shared within an organization, its potential value emerges. Proper utilization and creation of new knowledge not only increase productivity but also enhance creativity (Al-Sheikh et al., 2023). Knowledge is a vital organizational asset, combining personal judgment, values, competencies, technical expertise, and skills (Mirzaei et al., 2019; Mehdi et al., 2019). KM involves strategies and processes implemented within organizations to enhance business process effectiveness and efficiency, achieve knowledge-based strategies, and maintain organizational performance (Bladgood, 2019).

KM utilizes individual and collective knowledge through processes of knowledge creation, sharing, and application with technological support to achieve organizational goals (Abbasi et al., 2014). In modern competitive environments, KM is a strategic weapon and a core organizational resource. Organizations that effectively manage their knowledge capital are more likely to maintain a competitive edge (Halsapple et al., 2003). The emerging knowledge economy requires knowledge-based organizations to treat KM as a primary source of competitive advantage, making KM capabilities key elements in fostering organizational competitiveness. Despite its strategic importance, the widespread adoption of KM initiatives in organizations remains limited (Bolisani et al., 2017).

Organizational knowledge can be systematically managed through KM, encompassing the creation, configuration, organization, retrieval, sharing, and evaluation of a company's knowledge assets (Hang et al., 2008). Many organizations increasingly invest in knowledge creation tools, allowing academic institutions to connect faculty members, facilitate knowledge exchange, learning, and retention (Kaba et al., 2017).

Research shows that KM processes (knowledge acquisition, sharing, and application) positively influence innovation. Knowledge creation or acquisition equips employees with skills and paves the way for innovation. Knowledge sharing has the most significant impact on innovation, as it enables new ideas and leverages the experiences of others. A primary barrier to knowledge sharing is fear of losing control, as individuals may hesitate to share knowledge that could reduce their perceived power (Obeidat et al., 2016). One of the main challenges for organizations, including public institutions, is acquiring knowledge that enhances competitive advantage, creativity, innovation, and organizational learning, thereby enriching organizational knowledge.

Overall, education is one of the most sensitive organizational sectors in society. Teachers, as the foundation of the educational system, are the most influential actors in learning processes. Attention to KM has long been a focal point for researchers and has gained even more significance in the context of contemporary transformations. This study seeks to explore the extent to which KM empowerment affects school principals and lays the groundwork for improving their organizational performance. The research identifies factors that enhance managerial efficiency, organizational intelligence, and interpersonal behavior within schools. Given temporal and spatial limitations, distance learning—particularly through modern platforms such as Skyroom—emerges as an effective and flexible approach to professional development for educational managers. Distance learning allows principals to access specialized KM training while performing daily duties and benefit from collective knowledge and experience. This study encourages school managers to leverage organizational resources for implementing KM and improving management practices and human resources, the most valuable organizational assets, to remain competitive. Thus, it is essential to evolve KM empowerment in school principals in line with

changing educational and managerial landscapes. Accordingly, the present study aims to address this gap and answer the question of whether KM empowerment through distance learning affects the organizational performance and organizational intelligence of middle school principals in Nimruz.

Research Background

The findings of Zakari (2023) in the study titled "Examining the Impact of Organizational Climate on Knowledge Sharing Management Considering the Mediating Role of Subjective Norms, Intention to Share Knowledge, and Social Interaction (Case Study: Faculty Members of Universities in Dezful City)" indicated that organizational climate does not have a significant effect on knowledge sharing management considering the mediating role of social interaction among higher education faculty members in Dezful. Organizational climate affects the intention to share knowledge considering the mediating role of subjective norms. Subjective norms influence knowledge sharing management through the mediating role of the intention to share knowledge. Trust affects the organizational climate of higher education faculty members in Dezful. Leadership impacts the organizational climate of higher education faculty members in Dezful. Organizational climate affects subjective norms among faculty members. Subjective norms influence the intention to share knowledge among faculty members, and intention to share knowledge affects knowledge sharing management. Attitude impacts the intention to share knowledge, and behavioral control affects knowledge sharing management among Dezful faculty members.

According to the results of Azimi and Jafari (2021) in their study "The Impact of Knowledge Management Transformations and Organizational Adaptation on the Three Dimensions of Internal Performance, Customer Performance, and Employee Learning and Growth in Branches of Bank Mellat in Qom Province", it appears that organizations conducting their activities based on knowledge management and engaging in continuous organizational learning align with knowledge management transformations, ultimately achieving higher efficiency, effectiveness, productivity, and service quality. Considering the confirmed impact of knowledge management transformations on customer performance, it is suggested that organizations—especially financial institutions—integrate customer relationship management and knowledge management to improve business processes, enhance customer satisfaction, profitability, and loyalty.

Based on the findings of Pasandideh and Johari (2021) in the study "Analyzing the Relationship Between Knowledge Management and Ethics with Customer Loyalty in Permanent Branches of Bank Mellat, Melli, Pasargad, and Tejarat in Tehran", knowledge management and ethics are related to customer loyalty. According to model fitness tests, all four banks showed a relatively good model fit.

The results of Harb, Alkali, Shang, and Harb (2024) in the study "The Impact of Knowledge Management Exploration and Exploitation on Individual Performance and Empowerment in Jordan" indicate that exploring knowledge management practices has a significant positive effect on employee performance and empowerment, both directly and indirectly through employee empowerment. Findings also show that exploiting knowledge management practices has a statistically significant positive direct effect on employee empowerment and an indirect effect on employee performance through empowerment.

Al-Ti, Al-Eid, and colleagues (2022), in their study "The Impact of Employee Development Practices on Human and Social Capital: The Mediating Role of Knowledge Management in ICT Companies in Jordan", found that knowledge management has a significant impact on human capital but does not significantly affect social capital. Furthermore, knowledge management significantly mediates the impact of employee development practices on human capital.

The findings of Rezaei, Khalizadeh, and Soleimani (2021) in "Factors Affecting Knowledge Management and Its Impact on Organizational Performance: The Mediating Role of Human Capital in Afghanistan Steel Plant" demonstrated positive effects of structure, culture, leadership, and trust on knowledge management within an organization. Moreover, knowledge management impacts organizational performance both directly and indirectly through the mediating variable of human capital.

Abiswilliams and Abaloush (2019), in the study "The Impact of Knowledge Management Processes and Business Intelligence on Organizational Performance in Branches of Housing Bank in Jordan", concluded that there is a positive relationship between knowledge management processes and organizational performance. Additionally, components of business intelligence had positive effects on organizational performance. These results have significant implications for the banking sector in Jordan.

The Method The Design

The present study is applied in terms of purpose and falls within the category of quantitative research of the descriptive-correlational type. The statistical population of the study includes all middle school principals in Nimruz County during the 2024–2025 academic year. Using a census method, the sample consists of 12 female and 12 male principals. For distance learning of principals, the Skyroom platform was used. The data collection instrument was a questionnaire, detailed as follows:

Knowledge Management Questionnaire

The Knowledge Management Questionnaire consists of 16 items, designed by Nonaka and Takeuchi in 1995, and covers four dimensions: knowledge sharing, knowledge utilization, knowledge creation, and knowledge storage. The items are rated on a five-point Likert scale (very low, low, moderate, high, and very high). In Tabrizi's (2018) study, the reliability of the questionnaire was reported as 0.81 based on Cronbach's alpha, and its validity was deemed acceptable. In the present study, the reliability of this questionnaire was obtained as 0.73 using Cronbach's alpha.

Managers' Performance Questionnaire

This questionnaire was developed by Yazdani Nejad in 2009 to measure the performance level of managers. It includes 22 items on a five-point scale (always, often, sometimes, rarely, never). The items were developed based on existing literature on managerial performance. In Yazdani Nejad's (2009) study, the validity of the questionnaire was confirmed through face validity by presenting it to several experts and professors, who approved it after review. Cronbach's alpha was used to estimate reliability, with a reported value of 0.75 for the managers' performance questionnaire. In the present study, the reliability of this questionnaire was obtained as 0.71 using Cronbach's alpha.

Organizational Intelligence Questionnaire

To measure the organizational intelligence variable, the standard questionnaire developed by Albrecht (2002) was used. Albrecht's Organizational Intelligence Questionnaire consists of 21 five-point items and includes dimensions such as strategic vision, shared fate, willingness to change, commitment and optimism, alignment and consistency, knowledge development, and performance pressure. In Abdi's (2014) study, content validity was used to determine the questionnaire's validity. The questionnaire was provided to several organizational and management experts, who suggested certain modifications. After applying these modifications, the final version was used. The reliability of the questionnaire components, measured by Cronbach's alpha, was 0.96 for the entire questionnaire. In the present study, the reliability was 0.81 using Cronbach's alpha.

Results

The collected data were analyzed using descriptive statistics, including tables and charts, to describe demographic characteristics. For inferential statistics, Pearson correlation coefficient and regression tests were applied. After data collection, the normality of the data distribution was examined using the Kolmogorov-Smirnov test. For each questionnaire, some items were removed using the Cronbach's Alpha if Item Deleted method. Data analysis was performed using SPSS version 26.

In this study, 50% of the sample consisted of women and 50% of men. The majority of participants were aged 36–45, while the fewest were over 50 years old.

Table 1. Frequency Distribution of the Sample Based on Age

Statistical Indicators /Age	Frequency	Percentage
26–35	3	12.5%
36–45	9	37.5%
46–55	6	25%
Above 55	2	8%
Total	24	100%

Research Findings

Table 2. Minimum, Maximum, Mean, and Standard Deviation of Knowledge Management, Organizational Performance, and Organizational Intelligence Indicators among First Secondary School Principals in Nimruz County

Variable	Dimension	Mean	Standard Deviation	Minimum	Maximum
Knowledge Management	Knowledge Sharing	13.9167	2.56933	10.00	17.00
	Knowledge Utilization	12.1250	2.99728	6.00	16.00
	Knowledge Creation	13.6667	2.53097	8.00	18.00
	Knowledge Storage	14.7083	2.03190	10.00	18.00
	Total Knowledge Management	54.4167	6.74322	43.00	65.00
Organizational Performance	-	48.2917	14.32990	25.00	76.00
Organizational Intelligence	Strategic Vision	9.4583	2.85869	4.00	14.00
	Shared Fate	9.3333	3.25265	4.00	15.00
	Willingness to Change	8.0000	3.70663	3.00	14.00
	Commitment & Optimism	7.8750	3.19391	3.00	14.00
	Alignment & Coherence	8.9583	2.67808	5.00	14.00
	Knowledge Development	8.2917	3.08544	4.00	13.00
	Performance Pressure	9.2500	3.05386	4.00	15.00
	Total Organizational Intelligence	61.166	18.86258	34.00	89.00

As shown in Table 2, the highest mean is related to Organizational Intelligence (61.166), followed by Knowledge Management (54.4167) and Organizational Performance (48.2917). Within the Organizational Intelligence variable, the highest mean corresponds to Strategic Vision (9.4583), while the lowest mean is for Commitment & Optimism (7.8750). In Knowledge Management, the highest mean is for Internalization (14.7083) and the lowest for Externalization (12.1250).

Table 3. Bartlett's Test for Sample Adequacy

KMO	Bartlett's Test	Chi-Square	df	Significance
0.63	15.046	3	0.002	

Since the KMO value is 0.63 and the Chi-Square (X^2) value is 15.046, with Bartlett's test significance level less than 0.05 ($P \leq 0.05$), the sample size is considered adequate.

Table 4. Kolmogorov-Smirnov Test for Normality of the Population Distribution

Questionnaire	Kolmogorov–Smirnov	Significance
Knowledge Management	0.159	0.119
Organizational Performance	0.089	0.200
Organizational Intelligence	0.125	0.200

The results indicate that the significance level for all variables is greater than 0.05, confirming the normality assumption for the variables studied.

Table 5. Pearson Correlation between Knowledge Management Components and Organizational Performance

Variables	Knowledge Management Components	Knowledge Sharing	Externalization	Knowledge Creation	Internalization
Organizational Performance	p	0.120	0.018	0.71	0.79
	r	-0.326	0.48	-0.79	0.055
Organizational Intelligence	p	0.03	0.001	0.83	0.93
	r	0.59	0.653	-0.044	0.018
Organizational Intelligence & Knowledge Management	p	0.036	r	0.430	-

According to Table 5, Pearson correlation results show a positive and moderate correlation between organizational performance and knowledge utilization ($p = 0.018$, $r = 0.48$), explaining 48% of the variance. Managers with higher knowledge utilization demonstrate higher organizational performance. Other components of knowledge management show no significant correlation with overall organizational performance. Additionally, there is a positive correlation between organizational intelligence and knowledge sharing ($r = 0.425$, $p = 0.03$) and knowledge utilization ($p = 0.001$, $r = 0.653$), explaining 42.5% of the variance.

Table 6. Paired t-Test Correlation Results

Variables	Sample Size	Correlation	Significance
Knowledge Sharing – Organizational Performance	24	-0.326	0.12
Knowledge Utilization – Organizational Performance	24	-0.480	0.018
Knowledge Creation – Organizational Performance	24	-0.079	0.715
Knowledge Storage – Organizational Performance	24	0.055	0.797

The results indicate that only the correlation between knowledge utilization and organizational performance is statistically significant ($p < 0.05$).

Table 7. Comparison of Mean Values of Knowledge Management Components and Organizational Performance

Variable	Mean	SD	SE	95% CI	t	df	Significance
Knowledge Utilization	-36.16	15.98	3.26	-42.91 to -29.41	-11.084	23	0.000

The t-test shows a significant difference ($p < 0.05$), indicating that knowledge utilization significantly impacts organizational performance.

Table 8. Paired t-Test Correlation between Knowledge Management and Organizational Intelligence

Variables	Sample Size	Correlation	Significance
Knowledge Sharing – Organizational Intelligence	24	0.425	0.039
Knowledge Utilization – Organizational Intelligence	24	0.653	0.001

The results indicate that knowledge sharing and utilization significantly influence all components of organizational intelligence ($p < 0.05$).

Table 9. Comparison of Knowledge Management Components with Organizational Intelligence Dimensions

Organizational Intelligence	Knowledge Management	Mean	SD	SE	95% CI	t	df	Significance
Strategic Vision	Knowledge Sharing	4.45	3.4	0.694	3.02–5.89	6.423	23	0.000
	Knowledge Utilization	2.66	2.899	0.591	1.44–3.89	4.506	23	0.000
Shared Fate	Knowledge Sharing	4.583	3.077	0.628	3.283–5.882	7.296	23	0.000
	Knowledge Utilization	2.791	3.064	0.625	1.497–4.085	4.463	23	0.000
Willingness to Change	Knowledge Sharing	5.916	3.034	0.619	4.635–7.198	9.551	23	0.000
	Knowledge Utilization	4.125	2.893	0.59	2.902–5.347	6.983	23	0.000
Commitment & Optimism	Knowledge Sharing	6.041	3.047	0.708	4.576–7.506	8.529	23	0.000
	Knowledge Utilization	4.25	2.893	0.59	3.028–5.471	7.197	23	0.000
Alignment & Coherence	Knowledge Sharing	4.958	3.085	0.629	3.655–6.261	7.873	23	0.000
	Knowledge Utilization	3.166	2.565	0.523	2.083–4.249	6.048	23	0.000
Knowledge Development	Knowledge Sharing	5.625	3.346	0.683	4.217–7.038	8.234	23	0.000
	Knowledge Utilization	3.833	3.016	0.615	2.559–5.107	6.225	23	0.000
Performance Pressure	Knowledge Sharing	4.666	3.279	0.669	3.282–6.051	6.972	23	0.000
	Knowledge Utilization	2.875	2.755	0.562	1.711–4.038	5.112	23	0.000

All t-tests indicate significant differences ($p < 0.05$), suggesting that knowledge sharing and utilization positively affect all dimensions of organizational intelligence.

Discussion

education on the performance and organizational intelligence of secondary school principals. Based on the results of data analysis, a significant relationship was found between the components of knowledge management through distance learning (Skyroom) and the organizational performance of principals. The findings of this study are in line with previous research such as Azimi & Jafari (2023), Zare & Sabet (2020), Tahanpour et al. (2020), Hatefi & Roosta (2019), Shams Morkani et al. (2014), Harb et al. (2024), Rezaei et al. (2017), Abisoyliam & Abaloosh (2019), and Mehr & Mishra (2019). The similarity lies in the fact that their studies demonstrated that knowledge process capabilities and organizational creative learning mediate the relationship between knowledge management infrastructure and organizational performance, showing that the integration of customer relationship management and knowledge management improves business processes. Furthermore, exploring knowledge management practices has a significant positive impact on organizational performance and employee empowerment.

Interpreting the above findings, global experience shows that distance learning via Skyroom, in addition to meeting the increasing educational needs of people across different ages and social levels, aims to enhance the quality of education through the use of advanced technologies. In countries such as Iran, which face demographic challenges, distance learning has become a stream that responds to the social demand of young people for access to higher education and contributes to the professional development of educational staff, particularly school principals. However, challenges such as incomplete implementation and deviation from the principles of distance education—often due to alignment with traditional teaching habits—remain (Aslan Foroutan, 2023).

Knowledge management has assumed a central place in organizational literature, yet empirical studies examining this relationship remain scarce (Harb et al., 2024). Knowledge management through distance education in the Skyroom platform is a novel managerial approach involving the creation, acquisition, storage, dissemination, sharing, and application of knowledge in a virtual environment. Distance learning systems can play a key role in establishing knowledge management, as education systems using knowledge management processes are capable of cultivating knowledge-rich individuals. Since a close relationship exists between learning methods and knowledge creation, these systems allow for precise identification, sharing, and definition of informational needs.

Organizational performance, as one of the most critical issues in human resource management, is influenced by knowledge management. School principals, as conscious leaders with participatory management responsibilities, need to adopt knowledge management strategies. Thus, the primary challenge for many principals is their knowledge capacity. They must view knowledge management through distance education in Skyroom not only as a mission but also as an organizational strategy—attracting new knowledge, effectively managing it, and thereby contributing to the development of knowledge-based schools. The effectiveness of principals depends on their ability to select appropriate goals and define correct paths to achieve them. In this regard, knowledge management via Skyroom supports human resource development and assists principals in advancing organizational objectives.

Furthermore, results showed a significant relationship between knowledge management components delivered through distance learning (Skyroom) and principals' organizational intelligence. This finding aligns with studies such as Shekari et al. (2016), Shams Morkani et al. (2014), Mohammaddavoudi et al. (2013), and Abisoyliam et al. (2019). It is argued that with rapid technological changes, school principals—like other members of society—are confronted with shifts in competitive strategies, educational innovations, and scientific-technological transformations. In such dynamic environments, multiple factors must be synchronized to enable effective decision-making for achieving educational goals. Schools generate theoretical and practical knowledge through teamwork, underscoring the importance of learning and knowledge management in the educational sector. Moreover, schools foster persistence in learning, critical reasoning, creativity, socio-emotional skills, self-directed learning, and

outcomes aligned with contemporary social needs. Principals with organizational intelligence can mobilize teachers, students, and other stakeholders, leveraging knowledge management to collect, integrate, and apply new knowledge in line with emerging educational technologies.

The findings further suggest that the empowerment of the knowledge application component through distance education (Skyroom) significantly influences principals' organizational performance. This result corresponds with prior studies such as Mehr et al. (2019), Rezaei et al. (2017), Tahanpour et al. (2020), and Azimi & Jafari (2023). It can be inferred that human capital is the most prominent factor of competitive advantage, and the knowledge-based nature of organizational activities makes knowledge management increasingly important. Successful organizations consistently measure and evaluate knowledge production, dissemination, exchange, and application among their staff in order to identify effective strategies for achieving organizational goals (Ahmadian et al., 2021). The study also confirmed that greater application of knowledge correlates with improved employee performance.

In addition, the results revealed that empowering the components of knowledge sharing and knowledge application through distance learning (Skyroom) significantly affects all dimensions of organizational intelligence. This finding is consistent with studies such as Abisoyliam et al. (2019), Mohammaddavoudi et al. (2013), Saei Ersi et al. (2014), and Shekari et al. (2016). The findings highlight the need to depict strategies for knowledge sharing and application among principals at an optimal level, taking into account technological, knowledge-related, and contextual factors. Principals should share common goals with teachers, accept accountability, and use goal orientation as a powerful tool to align staff efforts with organizational objectives. By applying and sharing knowledge, principals can demonstrate readiness for change, facilitate transformation, and act as responsible, committed leaders capable of solving problems.

Conclusion

Based on the findings, it is recommended that to improve principals' performance and knowledge processes, the Ministry of Education should enhance empowerment strategies, foster trust and stronger interpersonal relationships, and promote communication. By expanding the use of virtual networks and distance learning platforms such as Skyroom, the education system can create a dynamic space where principals can develop their knowledge, acquire new insights, and engage in continuous professional development. Training opportunities and organizational conditions should be created to encourage the application of acquired knowledge, continuous learning, collaboration, and knowledge sharing. Moreover, technological infrastructure must be strengthened to familiarize school principals with virtual education tools and support effective knowledge dissemination.

he present study faced several limitations, including the inability to control for other variables that might affect performance and organizational intelligence. Additionally, the small and localized sample size limits the generalizability of the findings and may result in sample bias.

Conflict of Interest

This article has no conflict of interest and has not been published in any other publications. It has been submitted to the Quarterly of Iranian Distance Education Journal for review and puclishation.

Reference

Abbasi, R., Abbasi, M., Mozaffarpour, S (2014). Investigating the role of knowledge management in schools, Second International Conference on Management Challenges and Solutions, Shiraz.

Abdollahi, B, Heidarifard, R. (2014). The relationship between organizational intelligence and the effectiveness of school administrators. Educational Innovations, 13(2), 65-82.

Abusweilem, M., Abualoush, S. (2019). The impact of knowledge management process and business intelligence on organizational performance. Management Science Letters, 9(12), 2143-2156.

Aslan Foroutan, A, (2023). Knowledge Management through Distance Learning, 18th National Scientific Research Conference on Psychology and Educational Sciences, Shirvan.

Ahmadian, F., Sanjari, F.,Yazdkhasti, A.(2021). Knowledge Management and Its Impact on Empowerment, Second National Conference on Future School, Ardabil.

Alsheikh, G. A. A., Al-Gharaibeh, S. M., & Al-Naseri, D. A. (2023). Exploring the relationship between knowledge management and core competencies to improve universities success in Jordan: Testing the mediating effect of employee engagement. Periodicals of Engineering and Natural Sciences, 11(5), 76-90.

Anbari, A, Akbari, B, Sadeghi, A, Mafi, M. (2022). Structural relationships between family functioning and adolescent risky behaviors with the mediating role of quality of life in school. Disability Studies, 12(0), 0-0.

Ardalan, M R, Eskandari, A, Gilani, M. (2012). Knowledge Leadership, Organizational Intelligence and Organizational Effectiveness. Strategic Management Studies, 3(12), 71-100.

Azimi, H, Jafari, H. (2023). The impact of knowledge management developments and organizational adaptation on the three dimensions of internal performance process, customer performance and learning and growth. Information Management Sciences and Techniques, 9(2), 339-370.

Bates, T. C. & Rock, A. (2004). Personality and information processing speed: Independent influences on intelligent performance. Intelligence, 32, 33-46

Bloodgood, J. M. (2019). Knowledge acquisition and firm competitiveness: the role of complements and knowledge source. Journal of Knowledge Management, 23(1), 46-66.

Bolisani, E., & Bratianu, C. (2017). Knowledge strategy planning: an integrated approach to manage uncertainty, turbulence, and dynamics. Journal of Knowledge Management, 21(2), 233-253.

Fleishman, E.A., Mumford, M.D., Zaccaro, S.J., Levin, K.Y., Korotkin, A.L. & Hein, M.B. (1991). Taxonomic efforts in the description of leader behavior: a synthesis and functional interpretation, The Leadership Quarterly, 2 (4), 245-87.

Harb, Y., Alakaleek, W., Shang, Y., & Harb, A. (2024). The effect of knowledge management practices exploration and exploitation on individual performance and empowerment. Journal of the Knowledge Economy, 1-22.

Hatfi, M M, Rousta, A. (2019). Investigating the relationship between knowledge management and organizational performance, Research Paper on Law and Order and Security. (1)12, 231-252.

Holsapple, C. W., & Singh, M. (2003). The knowledge chain model: activities for competitiveness. Handbook on Knowledge Management: Knowledge Directions, 215-251.

Hong, H. K., Kim, J. S., Kim, T., & Leem, B. H. (2008). The effect of knowledge on system integration project performance. Industrial Management & Data Systems, 108(3), 385-404.

Kaba, A., & Ramaiah, C. K. (2017). Demographic differences in using knowledge creation tools among faculty members. Journal of Knowledge Management, 21(4), 857-871.

Kesti, M., Syvajarvi. A., Stenvall. J., Rivera. M. (2011). Human capital scenario analysis as an organizational intelligence tool for performance management. Problems and Perspectives in Management, 9(1), 46-58.

Lord. R. G., Shondrick. S. J. (2011). Leadership and knowledge: Symbolic, connectionist and embodied perspectives. The Leadership

Quarterly,22, 207-222.

Mahdi, O. R., Nassar, I. A., & Almsafir, M. K. (2019). Knowledge management processes and sustainable competitive advantage: An empirical examination in private universities. Journal of business research, 94, 320-334.

Meher, J.R. and Mishra, R.K. (2019), "Assessing the influence of knowledge management practices on organizational performance: An ISM approach", VINE Journal of Information and Knowledge Management Systems, 49 (3), 440-456.

Mirzaie, M.; Javanmard, H.-A.; Hasankhani, M.R. (2019). Impact of knowledge management process on human capital improvement in Islamic Consultative Assembly. Knowl. Manag. 17, 316–327.

Mohammad Davoudi, A H., Ghafari Gilandeh, B., Akbari, A.(2013) The relationship between organizational learning and organizational intelligence with empowerment from the perspective of teachers, Second International Conference on Management, Entrepreneurship and Economic Development, Qom.

Obeidat, B. Y., Al-Suradi, M. M., Masa'deh, R. E., & Tarhini, A. (2016). The impact of knowledge management on innovation: An empirical study on Jordanian consultancy firms. Management Research Review, 39(10), 1214-1238.

Rahmdel, M. (2019). Investigating the impact of knowledge management on organizational performance with the role of mediating organizational learning (case study: Noor Steel Company), Master's thesis, Islamic Azad University, Central Tehran Branch. Faculty of Management - Department of Information Technology Management.

Rezaei B., Tarin H. (2017). Meta-analysis of research conducted on factors affecting the performance of school principals. Journal of School Management. (2)5, 10-1.

Saei Arsi Iraj; Bahmanesh Mehdi; Alipour Vahideh. (2014). Study of the relationship between intelligent organizational knowledge management. Applied Research in Behavioral Sciences. 6, 20,39-64.

Shams Murkani, G., Mashayekhi, M., Soleimani, S. (2014). Explaining the role of organizational intelligence in improving organizational performance: A case study of high school principals in Tehran. Quarterly Journal of Educational Psychology, 10(31), 165-189.

Shekari, MR,. Esmaeili Givi, MR., Keshavarz, H. (2016). Study of knowledge management infrastructures and its impact on organizational intelligence in research institutes affiliated with the Ministry of Science, Research and Technology. Journal of Information Processing and Management, 31(4), 1075-1097. doi: 10.35050/JIPM010.2016.004 [in Persian]

Soltani, Z., Zareie, B., Rajabiun, L., & Agha Mohseni Fashami, A. (2020). The effect of knowledge management, e-learning systems and organizational learning on organizational intelligence. Kybernetes, 49(10), 2455-2474.

Tahanpour, Somayeh, Araei, Vahid. (2020). Investigating the effect of knowledge management enablers on organizational performance by considering the mediating role of the knowledge creation process and the moderating role of decision-making styles (Research sample: Iranian Tax Affairs Organization). Quarterly Journal of Organizational Knowledge Management, 3(3), 177-212. [in Persian]

Yazdan-Nejad, Farideh (2009). Investigating the adaptation of current performance of managers to the duties of primary school educational managers in Pakdasht city with the approach of: time management. Master's thesis. Islamic Azad University. Garmsar Branch. [in Persian]

Zare Sh., Sabet A. (2019). Investigating the impact of knowledge management initiatives and human resource empowerment on talent management. Scientific Journal of Modern Research Approaches in Management and Accounting, 4(13), 143-156.