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Examining the Mediating Role of Organizational Culture in the Relationship Between Knowledge-Oriented Leadership Style and Innovative Performance in the General Directorate of Education in Mazandaran Province

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ABSTRACT

Objective: The primary objective of this study is to investigate the role of knowledge-oriented leadership on innovative performance with the mediating role of organizational culture in the General Directorate of Education in Mazandaran Province.

Methodology: Given the nature of the study, which seeks to examine the relationship between the research variables, the present research is of a survey type. The statistical population of this study includes the employees of the General Directorate of Education in Mazandaran Province, totaling 140 individuals according to the inquiry from the personnel office, who were employed in 2021. The sample size was determined to be 103 individuals based on the Krejcie and Morgan table and selected through random sampling. The data collection tools used in this study were standardized questionnaires: the knowledge-oriented leadership questionnaire by Donate and de Pablo (2015), Hofstede's (1984) organizational culture questionnaire, and Eskandarzadeh's (2014) innovative performance questionnaire, which were distributed among the employees. Data analysis was performed using PLS2 and included the T-statistic and the path coefficient between two variables.

Findings: The results showed that there is no significant relationship between knowledge-oriented leadership and organizational culture. Additionally, there is no significant relationship between organizational culture and innovative performance. Furthermore, organizational culture does not have a mediating role in the relationship between knowledge-oriented leadership and innovative performance in the General Directorate of Education in Mazandaran Province.

Conclusion: Overall, it can be stated that the mediating role of organizational culture in the relationship between knowledge-oriented leadership style and innovative performance was not confirmed.

Keywords: *Knowledge-Oriented Leadership, Innovation, Organizational Culture*

1 Introduction

Due to rapid changes and intense market competition, today's organizations, especially knowledge-based companies, require rapid and continuous innovation (Aria Parsa & Dalvi Esfahan, 2023). Companies that fail to consistently introduce innovative products and services to the market are doomed to fail. There have been companies that, despite having a strong market position, have declined and even failed due to a lack of innovation. Knowledge-based companies cannot achieve customer satisfaction and loyalty without continuous innovation. Moreover, they will fail to attract new customers because, in today's competitive market, customers tend to gravitate towards innovative products and services (Islam et al., 2011).

In knowledge-based companies, knowledge is considered the most important strategic resource, essential for the long-term survival of the company and for gaining a competitive advantage through innovation (de Vries et al., 2010). Given that the activities of knowledge-based companies are specialized and based on knowledge and technology, knowledge management is crucial for improving innovation performance in these companies. Organizations use specific processes for knowledge management (Donate & Guadamillas, 2010; Donate & Guadamillas, 2011). One of the most common processes includes activities related to knowledge acquisition, knowledge retention, knowledge sharing, and knowledge utilization. Knowledge acquisition involves extracting tacit knowledge from employees, extracting explicit organizational knowledge, developing existing knowledge, and acquiring new knowledge from external sources (Donate & Guadamillas, 2011; Donate & Sánchez de Pablo, 2015). Knowledge retention includes codifying, storing, and organizing knowledge. Knowledge sharing involves the distribution, dissemination, and exchange of knowledge among individuals and workgroups (Garvin et al., 2008). Finally, knowledge utilization refers to the application and exploitation of the acquired and collected knowledge within the organization (Liao, 2011).

Knowledge-oriented leadership is considered a strategic necessity for institutions and organizations, ensuring long-term superiority by leveraging human, intellectual, and informational capital (Brewer & Brewer, 2010). The main objective of employing knowledge-oriented leadership in an organization is to quickly adapt to environmental changes to enhance efficiency and profitability (Donate & Guadamillas, 2010; Donate & Guadamillas, 2011; Donate & Sánchez de Pablo, 2015). Managers take various actions to continuously improve innovation through knowledge-oriented activities; however, knowledge-oriented activities alone are insufficient for achieving innovation in knowledge-based companies (Jiang et al., 2013). Factors exist that moderate the impact of knowledge management activities on innovation (Mura et al., 2013). According to previous research, the most important moderating factors influencing the impact of knowledge management activities on innovation are organizational-human factors. One such organizational-human factor is organizational culture (Srimulyani & Hermanto, 2022; Wahyudi et al., 2019; Winata, 2024; Wisnuharnowo et al., 2020).

Organizational culture is defined as a set of rules, values, and beliefs shared among members of the organization. Research on organizational culture and knowledge management focuses on values that encourage and promote the creation and sharing of knowledge (Zeb et al., 2021; Ziaei Nafchi & Mohelská, 2020). If an environment encourages individuals to share knowledge without providing the necessary incentives, the knowledge-sharing process within that organization will fail (Islam et al., 2011). Organizations that value openness and organizational trust are prepared to develop behaviors through which employees share their ideas and knowledge, enabling them to be more innovative and respond to market changes and new opportunities more quickly (Srimulyani & Hermanto, 2022). Culture indirectly plays an intermediary role in collaborative and cooperative learning for further innovations (Garvin et al., 2008). Overall, all the aforementioned studies emphasize that organizational culture affects the improvement of innovation capability (Donate & Guadamillas, 2010; Donate & Guadamillas, 2011; Donate & Sánchez de Pablo, 2015). Therefore, the main research question is: Does organizational culture moderate the impact of knowledge-oriented leadership on innovative performance in the General Directorate of Education in Mazandaran Province?

2 Methods and Materials

2.1 Study Design and Participants

The present research is applied in terms of its objective and descriptive-correlational in terms of its method. The statistical population consists of the employees of the General Directorate of Education in Mazandaran Province, totaling 140 individuals according to the personnel office,

IJIMOB
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who were employed in 2021. The sample size was determined to be 103 individuals based on the Krejcie and Morgan table and selected through random sampling. For data collection, two methods were used: reviewing and studying the theoretical foundations of the research topic and obtaining initial information through books, articles, theses, and journals, as well as using the internet to access articles related to the research topic. Given the nature of the present research, a questionnaire was used to examine the research hypotheses, distributed among the research sample, and collected after completion.

2.2 Data Collection

Three standardized questionnaires were used in this study:

Knowledge-Oriented Leadership Questionnaire: This scale was developed by Donate and de Pablo (2015). It consists of 6 items. The questions are formulated on a five-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). The scoring method ranges from 5 to 1. To calculate the overall score of the questionnaire, sum all item scores. The total score ranges from 6 to 30, with higher scores indicating a greater degree of knowledge-oriented leadership and vice versa.

Organizational Culture Questionnaire: This scale was developed by Hofstede (1984). It consists of 19 items and 4 components. The questions are formulated on a five-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). The scoring method ranges from 5 to 1. The Cronbach's alpha coefficient obtained for the organizational culture questionnaire in the present research with a sample of 30 individuals is 0.71, indicating high internal consistency.

Innovative Performance Questionnaire: This scale was developed by Eskandarzadeh (2014). It consists of 14 items. The indicators of innovative performance include product innovation, behavioral innovation, process innovation, and strategic innovation. The questionnaire is formulated on a five-point Likert scale (very low to very high). The scoring method ranges from 1 to 5. To calculate the score for each subscale, sum the scores of all related items. To calculate the overall score, sum the scores of all items. The total score ranges from 14 to 70, with higher scores indicating greater innovative performance and vice versa.

2.3 Data Analysis

After collecting the questionnaires and extracting the data, the information was initially recorded as codes on specific sheets. The coded information was entered into a computer. Data analysis was performed using statistical software (SPSS) and PLS2. In the inferential statistics section, the model fit was assessed through PLS2.

3 Findings and Results

The descriptive demographic results showed that in the overall population under study, 75 employees (72.82%) were male and 28 employees (27.18%) were female. Additionally, 7 employees (6.7%) were in the age group of 20-29 years, 14 employees (13.5%) were in the age group of 30-39 years, 72 employees (70.0%) were in the age group of 40-49 years, and 5 employees (9.8%) were in the age group of 50-59 years. As shown in Table 1, the average scores for the main variables were: knowledge-oriented leadership (27.93), innovative performance (69.84), and organizational culture (94.78). Among the dimensions of innovative performance, organizational culture had the highest average scores for product innovation (29.93), masculinity-femininity (39.91), and knowledge creation (33.69).

Table 1

Mean Scores of Respondents' Views on Study Variables

Dimensions of the Questionnaire	Respondents (N)	Mean	Standard Deviation
Organizational Culture	103	94.78	1.05
Masculinity-Femininity	103	39.91	0.51
Individualism-Collectivism	103	14.96	0.19
Uncertainty Avoidance	103	19.96	0.24
Power Distance	103	19.95	0.21
Knowledge-Oriented Leadership	103	27.93	1.8
Innovative Performance	103	69.84	0.75
Product Innovation	103	29.93	0.38
Behavioral Innovation	103	19.96	0.28
Process Innovation	103	9.98	0.14

IJIMOB
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Strategic Innovation	103	9.97	0.17

According to the Cronbach's alpha and composite reliability values reported in Table 2, it is evident that all latent variables have a Cronbach's alpha of less than 0.49, indicating that other dimensions of the model lack adequate reliability.

Table 2

Reliability Coefficients of the Questionnaires After Removing Low-Credibility Items

Factors	Items	Cronbach's Alpha	Composite Reliability	Subfactors	Items	Cronbach's Alpha	Composite Reliability
Organizational Culture	19	0.217	0.376	Masculinity-Femininity	8	0.196	0.624
				Individualism-Collectivism	3	-0.202	0.337
				Uncertainty Avoidance	4	-0.024	0.231
				Power Distance	4	0.177	0.641
Knowledge-Oriented Leadership	6	0.416	0.670	Knowledge-Oriented Leadership	6	0.416	0.795
Innovative Performance	14	-0.110	0.029	Product Innovation	6	0.053	0.087
				Behavioral Innovation	4	0.031	0.395
				Process Innovation	2	-0.381	0.091
				Strategic Innovation	2	-0.369	0.123

According to Table 3, in some paths, the t-value is equal to or greater than 1.96. As a result, there is a significant relationship between the main factors and their sub-factors, and the correlation coefficient for each path is specified. However, as shown in Table 3, the significance t-value for the relationship between knowledge-oriented leadership and organizational culture is less than 1.96. Therefore, with 95% confidence, there is no significant relationship between knowledge-oriented leadership and organizational culture, with a path coefficient of 0.107. Additionally, the significance t-value for the relationship between organizational culture and innovative performance is less than 1.96. Therefore, with 95% confidence, there is no significant relationship between organizational culture and innovative performance, with a path coefficient of -0.180. In contrast, the significance t-value for the relationship between knowledge-oriented leadership and innovative performance is greater than 1.96. Therefore, with 95% confidence, there is a significant relationship between knowledge-oriented leadership and innovative performance, with a path coefficient of 0.879.

Table 3

Significance (T-values) of Relationships Between Main Factors and Sub-factors

Path Relationships Between Main Factors and Sub-factors	t-value	Path Coefficient	Result
Significance between Knowledge-Oriented Leadership and Organizational Culture	0.517	0.107	Rejected
Significance between Organizational Culture and Masculinity-Femininity	6.250	0.652	Confirmed
Significance between Organizational Culture and Individualism-Collectivism	2.531	0.523	Confirmed
Significance between Organizational Culture and Uncertainty Avoidance	3.390	0.643	Confirmed
Significance between Organizational Culture and Power Distance	7.586	0.767	Confirmed
Significance between Knowledge-Oriented Leadership and Innovative Performance	20.471	0.879	Confirmed
Significance between Innovative Performance and Product Innovation	4.666	0.691	Confirmed
Significance between Innovative Performance and Behavioral Innovation	7.481	0.765	Confirmed
Significance between Innovative Performance and Process Innovation	1.060	0.474	Rejected
Significance between Innovative Performance and Strategic Innovation	2.256	0.480	Confirmed
Significance between Organizational Culture and Innovative Performance	0.623	-0.180	Rejected

As seen in Table 3, the main endogenous variables of the model fall within the range of 0.011 to 0.827 and have moderate to strong determination coefficients above average.

IJIMOB
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Table 4

R-Squared Values of Endogenous Variables in the Research Model

Constructs	R-Squared	Adjusted R-Squared
Organizational Culture	0.011	0.001
Masculinity-Femininity	0.425	0.419
Individualism-Collectivism	0.274	0.266
Uncertainty Avoidance	0.413	0.407
Power Distance	0.588	0.583
Innovative Performance	0.034	0.014
Product Innovation	0.478	0.472
Behavioral Innovation	0.586	0.582
Process Innovation	0.224	0.216
Strategic Innovation	0.230	0.222

As shown in Table 4, the knowledge-oriented leadership variable has a small effect on the organizational culture construct. The knowledge-oriented leadership variable has a negligible effect on the innovative performance construct, and the relationship of other variables with each other is evaluated as large.

Table 5

Effect Size of Research Constructs

Path Relationships Between Constructs	F-squared (Effect Size)	Effect Size
Organizational Culture		
Masculinity-Femininity	0.741	Large
Individualism-Collectivism	0.377	Large
Uncertainty Avoidance	0.704	Large
Power Distance	1.426	Large
Knowledge-Oriented Leadership	-	-
Knowledge Management		
Knowledge Creation	4.280	Large
Behavioral Innovation	1.415	Large
Process Innovation	0.289	Medium
Strategic Innovation	0.230	Medium
Knowledge-Oriented Leadership >>> Organizational Culture	0.012	Small
Knowledge-Oriented Leadership >>> Innovative Performance	0.005	Negligible
Organizational Culture >>> Innovative Performance	0.033	Small

The Goodness of Fit (GOF) index is a measure for assessing the overall fit of the model to predict endogenous variables. This index is the square root of the product of the average communalities and the average R-squared values. Values of 0.01, 0.25, and 0.36 are introduced as weak, moderate, and strong GOF, respectively. The calculated GOF value in this study is 0.12, which is close to the moderate threshold of 0.25. Therefore, it can be concluded that the overall fit of the research model is nearly adequate but less than moderate. Consequently, knowledge-oriented leadership does not have a significant relationship with the variables of organizational culture and innovative performance of the studied employees. Hence, organizational culture does not act as a mediating variable between the independent variable of knowledge-oriented leadership and the innovative performance of the studied employees, nor does it improve their innovative performance.

4 Discussion and Conclusion

The results of the second hypothesis showed that there is no significant relationship between organizational culture and innovative performance. These results are inconsistent with the findings of some researchers (Islam et al., 2011; Liao, 2011). Organizational culture is a set of shared ideas, traditions, values, and commitments among organizational members that can be a potential source of innovation (Donate & Guadamillas, 2010; Donate & Guadamillas,

IJIMOB
E-ISSN: 3041-8992

2011; Donate & Sánchez de Pablo, 2015). The fundamental values and assumptions governing the organization can be shaped in a way that allows individuals to easily present their ideas within the organization. The most important factor in an innovation-supporting culture is the support of organizational leaders and the tolerance of ambiguity and risk (Brewer & Brewer, 2010). Organizational leaders can help the organization be more innovative through support, accountability, creating organizational flexibility, and empowering employees. Allocating time and budget for employees to innovate can strengthen the expression of ideas within the organization (Ziaei Nafchi & Mohelská, 2020). Innovation criteria in organizational culture include enablers of innovation, such as minimal regulations, extensive informal communication, positive managerial outlook, face-to-face communication, limiting bureaucracy, emphasizing employee creativity, organizational flexibility, and flat structures. Emphasizing and institutionalizing these aspects can strengthen organizational innovation. Innovation does not solely stem from organizational culture; part of it originates from the culture of the society in which the organization is located. Innovation can be linked not only to organizational culture but also to national and regional culture. Enhancing innovation culture can be considered a contextual factor that is necessary but not sufficient for innovation. However, this culture can largely explain the success of many innovative organizations (Garvin et al., 2008). Increasing high-level communication, tolerating risk and ambiguity, allocating time for individuals to think creatively, and reducing the exertion of power in organizational culture can open the doors of innovation to our organization and bring sustainable competitive advantages.

The study results showed that organizational culture does not mediate the relationship between knowledge-oriented leadership and performance. These results are inconsistent with other studies (Jiang et al., 2013). The survival of an organization depends on shaping a culture initiated by efficient leaders. This becomes especially true when the organization faces a period of change. Since knowledge-based leaders are always concerned with organizational renewal, they seek to foster an organizational culture conducive to creativity, problem-solving, risk-taking, and experimentation (Donate & Sánchez de Pablo, 2015). Furthermore, employing knowledge-oriented leadership as a practical power is not efficient for achieving an optimal organizational culture. If managers can use effective knowledge leadership resources, such as reward power, they can guide employees towards performing tasks correctly, increasing efficiency, and ultimately leading to a better organizational culture (Donate & Guadamillas, 2010; Donate & Guadamillas, 2011).

Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

References

Aria Parsa, M., & Dalvi Esfahan, M. R. (2023). Mixed Research of Establishing of an Entrepreneurial Model with a Future Research Approach in the Metaverse Era in Knowledge-Based Companies in the Field of Information Technology. *Iranian Journal of Educational Society*, *9*(2), 83-94. https://doi.org/10.22034/ijes.2023.1989737.1388

Brewer, P. D., & Brewer, K. L. (2010). Knowledge Management, Human Resource Management, and Higher Education: A Theoretical Model. *Journal of Education for Business*, *85*(6), 330-335. https://doi.org/10.1080/08832321003604938

de Vries, R. E., Bakker-Pieper, A., & Oostenveld, W. (2010). Leadership = Communication? The Relations of Leaders' Communication Styles with Leadership Styles, Knowledge Sharing and Leadership Outcomes. *Journal of Business and*

IJIMOB
E-ISSN: 3041-8992

Psychology, *25*(3), 367-380. https://doi.org/10.1007/s10869-009-9140-2

Donate, M. J., & Guadamillas, F. (2010). The effect of organizational culture on knowledge management practices and innovation. *Knowledge and Process Management*, *17*(2), 82-94. https://doi.org/10.1002/kpm.344

Donate, M. J., & Guadamillas, F. (2011). Organizational factors to support knowledge management and innovation. *Journal of Knowledge Management*, *15*(6), 890-914. https://doi.org/10.1108/13673271111179271

Donate, M. J., & Sánchez de Pablo, J. D. (2015). The role of knowledge-oriented leadership in knowledge management practices and innovation. *Journal of Business Research*, *68*(2), 360-370. https://doi.org/10.1016/j.jbusres.2014.06.022

Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). Is yours a learning organization? *Harvard business review*, *86*(3), 109. https://simma-consulting.com/h-content/uploads/2022/08/Is-Yours-a-Learning-Organization-sima-consulting.pdf

Islam, Z. M., Hasan, I., Ahmed, S. U., & Ahmed, S. M. (2011). Organizational culture and knowledge sharing: Empirical evidence from service organizations. *African journal of business management*, *5*(14), 5900-5909. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1989270

Jiang, K., Takeuchi, R., & Lepak, D. P. (2013). Where do We Go From Here? New Perspectives on the Black Box in Strategic Human Resource Management Research. *Journal of Management Studies*, *50*(8), 1448-1480. https://doi.org/10.1111/joms.12057

Liao, Y. S. (2011). The effect of human resource management control systems on the relationship between knowledge management strategy and firm performance. *International Journal of Manpower*, *32*(5/6), 494-511. https://doi.org/10.1108/01437721111158170

Mura, M., Lettieri, E., Radaelli, G., & Spiller, N. (2013). Promoting professionals' innovative behaviour through knowledge sharing: the moderating role of social capital. *Journal of Knowledge Management*, *17*(4), 527-544. https://doi.org/10.1108/JKM-03-2013-0105

Srimulyani, V. A., & Hermanto, Y. B. (2022). Organizational Culture as a Mediator of Credible Leadership Influence on Work Engagement: Empirical Studies in Private Hospitals in East Java, Indonesia. *Humanities and Social Sciences Communications*. https://doi.org/10.1057/s41599-022-01289-z

Wahyudi, D., Salim, U., Djazuli, A., & Rofiaty. (2019). Influence of Organizational Culture, Organizational Trust and Self-Efficacy on Knowledge Sharing Behavior by Mediating Organizational Commitments Study on Auditors of District/City Inspectorates in East Java Province. *Journal of Engineering and Applied Sciences*. https://doi.org/10.36478/jeasci.2020.398.409

Winata, L. R. W. (2024). The Influence of Organizational Culture, Situational Leadership and Emotional Intelligence on Organizational Commitment Through Job Satisfaction at PDAM Tirta Ardhia Rinjani, Central Lombok Regency. *Journal of Economics Finance and Management Studies*, *07*(05). https://doi.org/10.47191/jefms/v7-i5-17

Wisnuharnowo, L. H. T., Hermanto, H., & Sakti, D. P. B. (2020). The Influence of Organizational Culture, Organizational Commitments and Information Technology on Knowledge Sharing. *International Journal of Multicultural and Multireligious Understanding*. https://doi.org/10.18415/ijmmu.v7i11.2116

Zeb, A., Akbar, F., Hussain, K., Safi, A., Rabnawaz, M., & Zeb, F. (2021). The competing value framework model of organizational culture, innovation and performance. *Business Process Management Journal*, *27*(2), 658-683. https://doi.org/10.1108/BPMJ-11-2019-0464

Ziaei Nafchi, M., & Mohelská, H. (2020). Organizational Culture as an Indication of Readiness to Implement Industry 4.0. *Information*, *11*(3).