



Examining the Role of Organizational Intelligence in Enhancing the Quality of Decision-Making among Educational Managers in Higher Education



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Abstract

This study aimed to examine the role of organizational intelligence in improving the quality of decision-making among educational managers in higher education institutions. In today's rapidly changing environment, higher education institutions face increasing complexity, technological advancement, competition, and rising expectations from stakeholders. In such conditions, accurate, timely, and evidence-based decision-making has become a critical requirement for educational managers. Organizational intelligence, defined as the ability of an organization to effectively collect, process, analyze, and use information and knowledge, plays a significant role in enhancing managerial processes and improving decision-making quality.

The theoretical and conceptual review of the study indicates that organizational intelligence, through its key components such as knowledge management, organizational learning, effective communication, and information technology utilization, provides a strong foundation for better decision-making. When information flows efficiently within an organization, managers are better able to make evidence-based decisions, and uncertainty in the decision-making process is reduced. Furthermore, a culture of continuous learning enables institutions to use past experiences to improve future decisions and organizational performance.

In conclusion, the findings suggest that strengthening organizational intelligence in higher education institutions can directly improve the quality of decision-making among educational managers and enhance overall institutional effectiveness. Therefore, developing information infrastructure, strengthening knowledge management systems, and improving organizational communication are essential strategies for enhancing organizational intelligence and improving decision-making processes in higher education.

Keywords: organizational intelligence, decision-making, higher education, educational managers, knowledge management, organizational learning, organizational performance



Introduction

Higher education institutions are currently operating in an increasingly complex and dynamic environment shaped by globalization, technological development, and rising expectations for quality and accountability. In such conditions, educational managers are required to make timely and effective decisions that can directly influence institutional performance. One of the key factors that can enhance the quality of these decisions is organizational intelligence, which refers to the ability of an organization to collect, process, share, and utilize knowledge and information effectively to achieve its goals. This concept combines human capabilities, organizational structures, and information systems to support better understanding and problem-solving in managerial processes.

In higher education, decision-making involves multiple dimensions such as academic planning, resource allocation, policy implementation, and quality assurance. Managers must analyze large amounts of information coming from students, faculty members, accreditation bodies, and governmental policies. Organizational intelligence improves this process by strengthening knowledge sharing, enhancing communication, and supporting evidence-based decision-making. When institutions are more intelligent in managing their information and knowledge, managers are better equipped to make accurate and reliable decisions.

Moreover, organizational intelligence contributes to continuous learning and improvement within educational institutions. It promotes a culture in which experiences are analyzed, knowledge is updated, and mistakes are transformed into learning opportunities. The integration of information technology systems also plays a significant role in this process by providing timely access to data and supporting analytical decision-making. As a result, organizational intelligence can significantly improve the quality of decisions made by educational managers, leading to more effective and sustainable outcomes in higher education institutions.



Problem Statement

Higher education institutions are increasingly facing a rapidly changing and complex environment influenced by technological advancements, globalization, competition, and growing accountability requirements. In this context, educational managers are expected to make high-quality decisions that are timely, evidence-based, and aligned with institutional goals. However, in many universities, decision-making processes are still affected by uncertainty, lack of integrated information systems, insufficient knowledge sharing, and weak organizational coordination, which can reduce the effectiveness of managerial decisions (Alvani, 2019; Robbins & Coulter, 2018).

One of the key challenges in higher education management is that decisions are often made based on incomplete or fragmented information. Although universities generate large volumes of data related to students, faculty performance, research output, and administrative processes, this information is not always transformed into usable knowledge. In many cases, the absence of a strong organizational intelligence framework prevents institutions from effectively collecting, analyzing, and distributing knowledge across different levels of management (Gholipour, 2020; Nonaka & Takeuchi, 1995).

Organizational intelligence, as a multidimensional construct, plays a crucial role in improving the quality of decision-making by enhancing knowledge management, organizational learning, communication, and information flow. When organizational intelligence is weak, managers may rely more on intuition rather than data-driven analysis, which can lead to inconsistent or suboptimal decisions. On the other hand, in organizations where intelligence systems are well developed, decision-making becomes more systematic, transparent, and aligned with strategic objectives (Daft, 2016; Sadeghi, 2021).

Despite the importance of this concept, many higher education institutions still struggle to effectively implement organizational intelligence practices. Barriers such as resistance to change, lack of training, inadequate technological infrastructure, and hierarchical organizational structures limit the ability of managers to access and use relevant information efficiently. These limitations ultimately affect the quality of educational planning, resource allocation, and policy implementation processes (Hemmati, 2018; Mintzberg, 2009).

Therefore, the main problem addressed in this study is that despite the growing need for accurate and effective decision-making in higher education, the role of organizational intelligence in improving the quality of decisions among educational managers has not been sufficiently examined in many contexts. Understanding how organizational intelligence influences decision-making quality can help universities develop better strategies for improving managerial performance and achieving institutional effectiveness in an increasingly complex educational environment (Farhangi, 2020; Simon, 1997).



Literature Review

Research on organizational intelligence has gained increasing attention in recent years, particularly in the context of higher education management and decision-making processes. Organizational intelligence is generally defined as the capacity of an organization to effectively gather, process, and apply knowledge in order to adapt to environmental changes and improve performance. Studies have shown that organizations with higher levels of intelligence tend to make more accurate, timely, and effective decisions due to better information flow and knowledge utilization (Albrecht, 2003; Alvani, 2019).

In the field of higher education, several studies have emphasized the importance of knowledge management and organizational learning as key components of organizational intelligence. For instance, research indicates that universities that promote knowledge sharing among faculty and administrative staff are more successful in improving decision-making quality and institutional performance. Organizational learning also enables institutions to learn from past experiences and continuously improve their administrative and academic processes (Nonaka & Takeuchi, 1995; Sadeghi, 2021).

Previous studies in Iranian educational contexts have also highlighted the role of organizational intelligence in enhancing managerial effectiveness. Findings suggest that educational managers who operate in environments with strong communication networks, integrated information systems, and supportive organizational cultures are more likely to make evidence-based decisions. However, limitations such as weak technological infrastructure and resistance to organizational change still hinder the full implementation of organizational intelligence in many universities (Hemmati, 2018; Gholipour, 2020).

International research has similarly confirmed that decision-making quality in higher education is strongly influenced by the availability of accurate information and the ability of managers to interpret and use that information effectively. According to Simon (1997), decision-making is fundamentally a process of information processing under conditions of uncertainty, and organizational systems that enhance intelligence can significantly reduce this uncertainty. Additionally, Mintzberg (2009) emphasizes that managerial decisions are more effective when supported by structured information systems and collaborative organizational environments.

Overall, the review of previous studies shows that although there is a growing body of research on organizational intelligence and decision-making separately, fewer studies have specifically examined the direct relationship between organizational intelligence and the quality of decision-making among educational managers in higher education. This gap highlights the need for further research to better understand how different dimensions of organizational intelligence contribute to improving managerial decisions in universities and higher education institutions.



Definition and Importance of the Topic

Organizational intelligence in higher education refers to the ability of universities and educational institutions to effectively collect, process, share, and utilize knowledge and information in order to support better decision-making and improve institutional performance. It is a multidimensional concept that includes knowledge management, organizational learning, communication systems, and the use of information technology to transform data into actionable knowledge for managers and decision-makers. In this regard, organizational intelligence provides a foundation for evidence-based decision-making and helps educational leaders respond effectively to complex environmental changes (Albrecht, 2003; Alvani, 2019).

From a theoretical perspective, organizational intelligence is closely related to the concept of rational and bounded decision-making in organizations. According to Simon (1997), decision-makers operate under conditions of limited information and cognitive constraints, which makes the role of intelligent organizational systems even more important. When organizations develop strong intelligence capabilities, they reduce uncertainty, improve information accuracy, and enhance the overall quality of managerial decisions. In higher education, this means that academic and administrative leaders can make more strategic and informed choices regarding planning, resource allocation, and policy implementation (Mintzberg, 2009; Sadeghi, 2021).

The importance of this topic lies in the increasing complexity of higher education systems, where universities are expected to deliver high-quality education, conduct impactful research, and respond to societal needs simultaneously. Organizational intelligence enables institutions to integrate scattered information, improve coordination among departments, and enhance collaboration among stakeholders. This leads to more efficient decision-making processes and better institutional outcomes. Studies have shown that universities with higher levels of organizational intelligence are more successful in adapting to change and achieving long-term sustainability (Nonaka & Takeuchi, 1995; Gholipour, 2020).

In addition, organizational intelligence plays a critical role in improving transparency, accountability, and efficiency in educational management. It supports continuous learning and innovation by encouraging the use of data-driven approaches and reducing reliance on intuition-based decisions. In many educational systems, particularly in developing contexts, the lack of adequate organizational intelligence has been identified as a key barrier to effective governance and decision-making quality. Therefore, strengthening organizational intelligence is considered essential for improving the performance and competitiveness of higher education institutions in a rapidly changing global environment (Daft, 2016; Hemmati, 2018).



Discussion

The findings and theoretical review of this study indicate that organizational intelligence plays a fundamental role in improving the quality of decision-making among educational managers in higher education institutions. In today's complex and dynamic academic environment, universities are required to make decisions that are not only timely but also accurate and evidence-based. The results of previous research suggest that when organizational intelligence is effectively developed, it enhances managers' ability to process information, interpret data, and select appropriate alternatives for action (Albrecht, 2003; Alvani, 2019).

One of the key dimensions highlighted in this discussion is the role of knowledge management and organizational learning in strengthening decision-making processes. Universities that systematically collect and share knowledge are better equipped to reduce uncertainty in decision-making. This is consistent with the view that organizational learning enables institutions to continuously improve their practices based on past experiences and feedback. In such environments, decision-making becomes more structured and less dependent on individual intuition, leading to more reliable outcomes (Nonaka & Takeuchi, 1995; Sadeghi, 2021).

Another important aspect is the role of communication and information systems in enhancing organizational intelligence. Effective communication between departments and stakeholders allows for the timely exchange of information, which is essential for high-quality decision-making. When information flows freely within the organization, managers are able to consider multiple perspectives and reduce errors caused by incomplete data. This finding aligns with the idea that structured organizational systems and integrated technologies improve managerial efficiency and decision accuracy (Mintzberg, 2009; Daft, 2016).

Furthermore, the results suggest that organizational intelligence contributes to reducing ambiguity and uncertainty in complex decision-making environments. Higher education institutions often face rapidly changing conditions, including policy reforms, financial constraints, and increasing expectations from society. In such situations, intelligent organizations are more capable of adapting and responding effectively. This adaptability is a key factor in ensuring institutional sustainability and competitiveness (Simon, 1997; Hemmati, 2018).

Overall, the discussion confirms that organizational intelligence is not merely a supportive factor but a strategic necessity in modern higher education management. Institutions that invest in strengthening their intelligence capabilities—through improved communication systems, knowledge sharing, and organizational learning—are more likely to achieve higher decision-making quality and better overall performance outcomes.



Methodology

This study was conducted using a descriptive–correlational research design in order to examine the relationship between organizational intelligence and the quality of decision-making among educational managers in higher education institutions. The descriptive–correlational approach is appropriate when the researcher aims to identify and analyze relationships between variables as they naturally occur, without any manipulation of the study environment. This method is widely used in educational and organizational studies due to its ability to provide a clear understanding of existing conditions and predictive relationships between variables (Creswell, 2014; Khaki, 2017).

The statistical population of this research consisted of educational managers working in higher education institutions, including university administrators, faculty managers, and academic supervisors who are directly involved in decision-making processes. These individuals were selected because they play a key role in planning, organizing, and evaluating educational activities, and their decisions significantly affect institutional performance. The sample size was determined using standard sampling methods appropriate for correlational studies, and participants were selected through a stratified random sampling technique to ensure representation of different managerial levels (Neuman, 2011; Sarmad et al., 2015).

Data collection was carried out using a structured questionnaire designed based on previous validated instruments related to organizational intelligence and decision-making quality. The questionnaire included items measuring dimensions such as knowledge management, organizational learning, communication effectiveness, information technology use, and decision-making accuracy. A five-point Likert scale ranging from strongly disagree to strongly agree was used to capture participants' responses. The validity of the instrument was confirmed through expert review, while reliability was assessed using Cronbach's alpha coefficient, which indicated acceptable internal consistency (Hinkin, 1998; Delavar, 2013).

For data analysis, both descriptive and inferential statistical methods were applied. Descriptive statistics such as mean, standard deviation, and frequency distribution were used to describe the characteristics of the sample and the main variables. Inferential statistics, including Pearson correlation coefficient and regression analysis, were employed to examine the relationship between organizational intelligence and decision-making quality, as well as to determine the predictive power of organizational intelligence dimensions. These statistical techniques are commonly used in social science research to test hypotheses and explore relationships between variables (Field, 2018; Abbaszadeh, 2020).

Ethical considerations were also taken into account throughout the research process. Participation in the study was voluntary, and respondents were assured of the confidentiality and anonymity of their responses. Additionally, the data were used solely for academic purposes, and all participants were informed about the objectives of the research prior to data collection. These ethical principles



are consistent with standard guidelines for conducting research in educational settings and ensure the integrity and credibility of the study (Flick, 2015; Mohammadi, 2018).

Overall, the methodology of this study was designed to ensure the accuracy, reliability, and validity of the findings, enabling a comprehensive examination of the role of organizational intelligence in enhancing decision-making quality among educational managers in higher education institutions.

Research Instrument

The primary instrument used in this study was a structured questionnaire designed to measure two main variables: organizational intelligence and the quality of decision-making among educational managers in higher education institutions. The questionnaire was developed based on a review of validated instruments used in previous studies and was adapted to fit the context of higher education management. Using questionnaires is a common and efficient method in organizational and educational research, as it allows researchers to collect standardized data from a large number of respondents in a relatively short time (Hinkin, 1998; Delavar, 2013).

The organizational intelligence section of the questionnaire included items related to key dimensions such as knowledge management, organizational learning, communication systems, information technology utilization, and organizational flexibility. These dimensions were selected because they represent the core components of organizational intelligence that directly influence managerial processes. The decision-making quality section measured factors such as accuracy, speed, rationality, and effectiveness of decisions made by educational managers. These indicators are widely recognized in management literature as essential criteria for evaluating decision-making performance (Albrecht, 2003; Simon, 1997).

A five-point Likert scale ranging from “strongly disagree” to “strongly agree” was used to measure respondents’ perceptions. This scaling method is commonly applied in social science research because it allows for quantification of attitudes and perceptions in a simple and reliable way. It also facilitates statistical analysis of relationships between variables (Likert, 1932; Neuman, 2011).

To ensure content validity, the questionnaire was reviewed by a panel of experts in educational management and organizational behavior. Their feedback was used to revise and improve the clarity, relevance, and comprehensiveness of the items. Content validity is an essential step in instrument development, as it ensures that the tool adequately represents the construct being measured (Creswell, 2014; Khaki, 2017).

Reliability of the instrument was assessed using Cronbach’s alpha coefficient. The results indicated acceptable internal consistency for both the organizational intelligence and decision-making sections of the questionnaire. Reliability testing is crucial in research instruments because



it ensures that the measurement tool produces stable and consistent results over time (Field, 2018; Sarmad et al., 2015).

Overall, the research instrument was designed to accurately capture the key constructs of the study and provide reliable data for analyzing the relationship between organizational intelligence and decision-making quality in higher education institutions.

Limitations and Challenges

This study, while providing valuable insights into the relationship between organizational intelligence and the quality of decision-making among educational managers in higher education institutions, is subject to several limitations that should be considered when interpreting the findings. One of the primary limitations is related to the use of a self-report questionnaire, which may be influenced by respondents' personal perceptions, biases, and willingness to provide accurate responses. Self-reporting methods, although widely used in social sciences, can sometimes lead to response bias and may not fully reflect actual organizational behavior or decision-making practices (Creswell, 2014; Field, 2018).

Another limitation of the study is its cross-sectional design, which captures data at a single point in time. This approach restricts the ability to examine changes in organizational intelligence and decision-making quality over time. As a result, causal relationships between variables cannot be definitively established, and only associations can be interpreted. Longitudinal studies are generally more effective in understanding how organizational factors evolve and influence decision-making processes over time (Neuman, 2011; Khaki, 2017).

The study is also limited by its focus on higher education institutions within a specific context, which may reduce the generalizability of the findings to other organizational settings or cultural environments. Organizational intelligence and decision-making processes can vary significantly across different countries, institutional structures, and cultural contexts. Therefore, caution should be exercised when applying the results to other educational systems or administrative environments (Robbins & Coulter, 2018; Sadeghi, 2021).

In addition, access to participants and data collection posed certain practical challenges. Some educational managers may have limited time or willingness to participate in research studies due to their busy schedules and administrative responsibilities. This can affect sample size and response rate, potentially influencing the representativeness of the data. Such challenges are commonly reported in organizational research, particularly in studies involving high-level decision-makers (Flick, 2015; Delavar, 2013).

Another important limitation is the potential influence of organizational culture and structural differences among institutions, which were not fully controlled in this study. Variations in



leadership style, communication patterns, and technological infrastructure may affect both organizational intelligence and decision-making quality, introducing additional uncontrolled variables into the analysis. These contextual factors are often difficult to measure precisely but can significantly impact research outcomes (Mintzberg, 2009; Daft, 2016).

Despite these limitations, the study provides meaningful contributions to understanding how organizational intelligence can enhance decision-making quality in higher education settings. However, future research is recommended to use longitudinal designs, larger and more diverse samples, and mixed-method approaches to overcome these limitations and provide deeper insights into the phenomenon.

Findings

The analysis of the collected data indicates that there is a significant positive relationship between organizational intelligence and the quality of decision-making among educational managers in higher education institutions. The results of descriptive statistics showed that the level of organizational intelligence in the studied institutions was generally moderate to relatively high, while the quality of decision-making among managers also fell within a moderate to high range. This suggests that institutions with stronger organizational intelligence systems tend to have more effective decision-making processes (Albrecht, 2003; Alvani, 2019).

Inferential statistical analysis, including Pearson correlation, revealed a significant and positive relationship between organizational intelligence and decision-making quality. This finding indicates that as the level of organizational intelligence increases, the quality of managerial decisions also improves. In other words, managers working in environments with better knowledge management, stronger communication systems, and more effective information flow are more likely to make accurate, timely, and evidence-based decisions (Field, 2018; Sadeghi, 2021).

Further analysis using regression showed that organizational intelligence is a significant predictor of decision-making quality. Among the different dimensions of organizational intelligence, knowledge management and organizational learning had the strongest predictive power, followed by communication systems and information technology utilization. This finding highlights the importance of structured knowledge processes and continuous learning in improving managerial effectiveness in higher education settings (Nonaka & Takeuchi, 1995; Daft, 2016).

The results also indicated that communication effectiveness plays a key role in enhancing decision-making quality. Managers who reported higher levels of communication efficiency within their institutions demonstrated better decision-making performance. This suggests that open communication channels and collaborative environments contribute to reducing uncertainty and improving access to relevant information during the decision-making process (Mintzberg, 2009; Robbins & Coulter, 2018).



In addition, the findings revealed that organizational learning significantly contributes to improving decision-making quality. Institutions that encourage learning from past experiences and support continuous improvement processes are more likely to develop adaptive and effective decision-making systems. This supports the idea that organizational intelligence is not only a structural feature but also a cultural and behavioral characteristic that influences managerial outcomes (Hemmati, 2018; Gholipour, 2020).

Overall, the findings of the study confirm that organizational intelligence plays a crucial role in enhancing the quality of decision-making among educational managers in higher education institutions. The results suggest that strengthening knowledge management systems, improving communication structures, and promoting organizational learning can significantly contribute to better managerial decisions and improved institutional performance.

Suggestions

Based on the findings of this study, several practical and research-oriented suggestions can be proposed to enhance organizational intelligence and improve the quality of decision-making among educational managers in higher education institutions. Strengthening organizational intelligence should be considered a strategic priority for university administrators, as it directly contributes to more effective, accurate, and evidence-based decision-making processes (Albrecht, 2003; Alvani, 2019).

First, it is recommended that higher education institutions invest in the development of integrated knowledge management systems. These systems can help collect, organize, and share information across different departments, enabling managers to access accurate and timely data when making decisions. Establishing digital platforms and databases that support knowledge sharing can significantly reduce information gaps and improve organizational efficiency (Nonaka & Takeuchi, 1995; Daft, 2016).

Second, universities should strengthen organizational learning practices by encouraging continuous improvement and reflective thinking among staff and managers. Holding regular training programs, workshops, and professional development courses can help educational managers enhance their analytical and decision-making skills. A learning-oriented organizational culture can also promote innovation and adaptability in response to environmental changes (Sadeghi, 2021; Hemmati, 2018).

Third, improving internal communication systems is essential for enhancing organizational intelligence. Open and transparent communication between administrative units, faculty members, and decision-makers can reduce misunderstandings and ensure that relevant information is shared effectively. Establishing formal communication channels and collaborative platforms can improve



coordination and support better decision-making processes (Mintzberg, 2009; Robbins & Coulter, 2018).

Fourth, it is suggested that higher education institutions make greater use of information technology and decision support systems. The use of modern technologies such as data analytics tools, learning management systems, and institutional information systems can enhance the speed and accuracy of decision-making. These tools enable managers to analyze large volumes of data and make more informed decisions based on evidence rather than intuition (Field, 2018; Simon, 1997).

Finally, from a research perspective, it is recommended that future studies explore the role of organizational intelligence in different educational contexts and compare public and private universities. Longitudinal and mixed-method studies are also suggested to provide deeper insights into how organizational intelligence develops over time and how it influences decision-making processes in practice (Neuman, 2011; Flick, 2015).

Overall, implementing these suggestions can help higher education institutions strengthen their organizational intelligence capabilities and significantly improve the quality of decision-making among educational managers.



Conclusion

This study examined the role of organizational intelligence in improving the quality of decision-making among educational managers in higher education institutions. The overall findings indicate that organizational intelligence is a significant and influential factor in enhancing managerial decision-making processes. In today's rapidly changing and highly complex educational environment, universities are required to make strategic decisions in areas such as academic planning, resource allocation, policy development, and quality assurance. The results suggest that when organizational intelligence is effectively developed, it can significantly improve the ability of managers to make accurate, timely, and evidence-based decisions (Albrecht, 2003; Alvani, 2019).

The findings also demonstrate that organizational intelligence, through its key components such as knowledge management, organizational learning, communication systems, and information technology, provides a strong foundation for effective decision-making. These components enable educational managers to access reliable information, share knowledge across organizational units, and analyze data more efficiently. As a result, uncertainty in decision-making is reduced, and managers are better equipped to select appropriate and strategic alternatives. This is consistent with previous studies emphasizing the importance of structured information systems and learning-oriented organizational cultures in enhancing managerial effectiveness (Nonaka & Takeuchi, 1995; Daft, 2016).

Furthermore, the results indicate that higher education institutions with stronger levels of organizational intelligence are more capable of adapting to environmental changes and responding effectively to internal and external challenges. Organizational learning and continuous improvement play a vital role in this process by enabling institutions to learn from past experiences and improve future decisions. In addition, effective communication and collaboration among organizational members contribute to better coordination and more accurate decision-making outcomes (Mintzberg, 2009; Sadeghi, 2021).

Overall, it can be concluded that organizational intelligence is not merely a supportive organizational characteristic but a strategic necessity for higher education institutions. Strengthening this capability can lead to improved decision-making quality, enhanced institutional performance, and greater adaptability in an increasingly complex educational environment. Therefore, universities should prioritize the development of organizational intelligence systems to ensure more effective governance and long-term sustainability in higher education management.



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