



IMPACTS OF JOB INVOLVEMENT AND KNOWLEDGE MANAGEMENT TECHNOLOGY MECHANISMS ON THE RELATIONSHIP BETWEEN ORGANIZATIONAL INTELLIGENCE AND SUPPORTING STRATEGIC DECISION-MAKING

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ABSTRACT

To incorporate the smart organization, business organizations strive for the best methods and practices to achieve superiority, which distinguishes them from others. Organizational intelligence is one of the best-implemented methods for establishing a smart organization. To achieve organizational intelligence and create smart organizations, the basic infrastructure of information technology is essentially required. This study examines the relationships between organizational intelligence, job involvement, knowledge management technology mechanisms, and support of strategic decision-making. It also aims to develop business intelligence among knowledge employees in the selected private educational organizations. Descriptive and analytical methods were adopted, which involved collecting, describing, and analyzing data. The results emphasized the importance of adopting an effective strategy to develop organizational intelligence given the key role played by strategic, tactical, and operational business intelligence in achieving sustainable business competitiveness. Therefore, it is recommended that managers should be trained on how to utilize business intelligence to nurture the culture of organizational intelligence and emphasize its pivotal role in supporting the strategic decision-making process.

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1 INTRODUCTION

Over the era of the late twentieth century, many drastic changes have occurred in the economic environment, notably the disappearance of trade restrictions between countries. The new age has witnessed the emergence of privatization, globalization, and the combination between computer

technology, communications, and electronics to create the most critically perilous technology of our time, i.e., Information Technology (IT). These fundamental changes resulted in an increasingly intensified global competition among world organizations. Competitiveness determines the success or failure of organizations. Possessing the keys to excellence and the excellence industry tools, organizations can build a better competitive reality, thereby moving from the reality of relative advantage to the competitive advantage reality. This has emphasized the importance of management of excellence as an activity, as well as planned organizational efforts to achieve permanently competitive advantages of the organization via products, markets, technology operations, in addition to new methods that ensure the organization's competitive advantage in the market. Therefore, business organizations have recently started looking for the best methods and practices that can distinguish them from other organizations such as becoming high-performing organizations, distinguished organizations, brilliant organizations, proficient organizations, and other attributes of superiority. In this regard, organizational intelligence is one of the best methods, which can lead to the establishment of smart organizations. Organizational intelligence, including strategic business intelligence, tactical business intelligence, and operational business intelligence play a pivotal role in achieving sustainable business competitiveness.

Interest in knowledge has been increasingly growing, particularly in the theoretical frameworks, which are originating from it. They address important administrative and economic issues of rapid changes in the business environment. Therefore, knowledge management is regarded as an important asset of the organization to rely on in achieving its desired goals. Accordingly, there is a crucial need for intelligent leaders and managers with intellectual capabilities and unconventional skills that are based on developing knowledge and experience and providing future-related visions and approaches to acclimatize with the current dynamic era (Al-Obaidi, 2010). Clar et al. (2008) have emphasized that organizational intelligence can provide necessary and appropriate information for managers at the right time so that they can make the right decisions. Organizational intelligence has emerged as one of the factors of competitiveness; it is also a business practice to build a smart organization.

The first administrative attempts were directed towards “management excellence”. However, another process, namely “management of excellence” is essentially required in modern organizations. In any organization, performance excellence cannot be randomly achieved or carried out by chance. Considering the shift to the information age, the importance of information, and its technology as a tool for excellence in organizations has been increasing rapidly. Employees are essential for the progress of the organization and companies are striving to build up and apply knowledge to achieve productivity and multiply competitive advantages. Organizational intelligence is one of the innovative methods, which can lead to creating smart organizations with the intellectual ability to preserve the available knowledge and the ability to learn new information to be used in a competitive environment (Hanebeck, 2000). Organizations should, therefore, strive to care for intelligent minds and information technology available through an assessment system based on transparency and information disclosure to reject hierarchical structures and career centres as basic principles of the organization.

To achieve organizational intelligence and establish smart organizations, the basic infrastructure of information technology is required, which is necessary for the organization. Therefore, organizations require knowledge management technology operations in support of knowledge

management systems such as Artificial Intelligence, Group Decision Support Systems, Expert Systems, Knowledge-Based Systems, Case-Based Reasoning Systems, and Knowledge Elicitation Systems. Another variable that may affect the relationship between organizational intelligence and strategic decision-making is job involvement, which is defined as the degree to which a person identifies psychologically with his/her work and the importance of work to one's self-image (Ting & Ho, 2017). According to Bakker, Demerouti, and Sanz-Vergel (2014), job involvement is associated with important job output and performance. Hence, employees' job involvement significantly influences their job performance. Keller (1997) found that employees' job involvement significantly influences their job performance. The relationship between job involvement, organizational change, and administrative efficacy of employees in the district offices of Kaohsiung City has been examined. The results suggested that when office employees' job involvement is higher, their performance of administrative efficacy will be higher as well. Furthermore, job involvement effectively enhances employees' life satisfaction and job performance (Shimazu et al., 2015).

Given the growing interest in the human factor, which is vital in the knowledge era, developing human mental capabilities to achieve progress, developing knowledge accumulation, integrating sources of knowledge, and the growing importance of business with cognitive content, organizations are essentially required to consider strategic knowledge to enhance organizational intelligence. This can be done through organizing, managing, and investing the organization's experiences and employees to achieve the goals of strategic change and support the decision-making process. This will, in turn, lead the organization to function more effectively and efficiently by providing the tools of success, which are needed for survival in the ever-changing business world (Al-Abadi, 2012).

To this end, this paper aims to examine the impact of job involvement and knowledge management technology mechanisms (KMTM) as mediator variables on the relationship between organizational intelligence and supporting strategic decision-making in the private education sector in Saudi Arabia.

2 LITERATURE REVIEW

This section critically reviews the related literature and analyzes previous studies related to this study. Kuhlmann et al. (1999) examined the impact of organizational intelligence on upgrading the performance of organizations to seize opportunities and achieve innovations. The study also examined the impact of information as a key component of organizational intelligence on the effectiveness of the decision-making process, policies, and strategies. The results showed that organizational intelligence provides information for decision-makers. Also, more analytical abilities for managers can be provided through organizational intelligence so that they make the right strategic decisions. The increased demand for knowledge can result in an increased demand for organizational intelligence or smart organization. Conklin (1997) identified technological and cultural barriers that prevent knowledge acquisition and the impact they exert on decision-making, i.e., using email and other software. However, using such software alone may fail to create easy-to-access organizational memory. Therefore, a system was designed for knowledge display. This system can overcome the barriers that prevent the acquisition of formal knowledge during meetings. The designed system helps improve communication to support decision-making and increase its effectiveness. Another study by Pauker et al. (2000) studied several global industrial and service companies to investigate how

organizational intelligence provides important and fundamental information for decision-makers, particularly strategic decisions. Moreover, they investigated how to develop strategic business intelligence, as a form of organizational intelligence, to improve the performance of companies in tackling strategic issues related to the fast-changing, technology-oriented environment and the high levels of uncertainty in the business world. It was concluded that organizational intelligence provides multiple options for decision-makers regarding the organization's strategy in the long term.

In the U.S., a study was conducted to assess organizational intelligence at the Naval Academy by investigating the academy's efforts to develop the decision-making skills of marine officers. The study identified the extent to which the American Naval Academy has developed the decision-making skills of its naval officers. It also identified those who shoulder the responsibility of their professional development. The results of the study revealed the importance of having strategic intelligence among military leaders to enhance their skills in the decision-making process. The results also revealed that the American Naval Academy has a well-defined and detailed program, which ensures that graduates are well trained to be involved in decision-making (Healey, 2004). On the other hand, Al-Saed and Hareem (2004) examined the relationship between information technology (IT) and the competitive advantage of organizations, as well as the relationship between knowledge management and competitive advantage. The study has also identified the impact of the relationship between information technology and knowledge management on achieving the organization's competitive advantage. Three major pharmaceutical companies were included in the study. The results suggested that there is a significant relationship between knowledge management and competitive advantage. However, there is a moderate relationship between information technology and competitive advantage. The study concluded that knowledge management contributes more to achieving a competitive advantage compared to information technology.

In the same vein, another study examined how highly distinguished minds can influence the process of creating and managing knowledge to support strategic decision-making. The study concluded that the revolution in information technology and communications, as well as the Internet play a key role in developing human knowledge. The study recommended that organizations must expand their reliance on highly distinguished human minds and use them to manage knowledge and support decision-making. A significant relationship was also found between enhancing experience, the efficiency of knowledge transfer, and decision-making effectiveness (Gadman, 2005). In the context of South Africa, research was conducted to explain how Web Mining technology can be implemented to achieve organizational intelligence and enhance its development in South African organizations to support the strategic decision-making process, especially the role of strategic business intelligence in collecting information about the organization's external environment, whereby the Internet is an effective source of strategic business intelligence. The study concluded that Web Mining can be used for strategic business intelligence to help support and make decisions. Also, consultants of intelligence in companies can use the Web to retrieve strategic information about customers (Wagner & Van Belle, 2005). In Japan, Yoshizawa (2008) conducted empirical case studies of the main initiatives of the Japanese government in using organizational intelligence to support strategic decisions related to the development of nuclear and photovoltaic technologies. The results showed that the proposed job-based framework to analyze strategic business intelligence can facilitate access to a full institutional design for policy analysis.

In India, a study was conducted to examine the relationship between job involvement, organizational commitment, team commitment, and professional commitment. Moreover, generational differences for these variables were examined. It was found that professional commitment is negatively related to job involvement, affective organizational commitment, normative organizational commitment, and team commitment. Job involvement, affective, and normative organizational commitment, and team commitment were positively correlated (Ajay & Bindu, 2015). In another study, the relationship between job involvement and employee performance among Makerere University lecturers in Kampala (Uganda) was investigated. The findings revealed that both job involvement and employee performance levels were relatively high. It was, therefore, concluded that there is a significant relationship between job involvement and employee performance (Turyamuhaki, 2019).

In the Middle East, Madhi (2011) investigated the directors' attitudes and perceptions in several major municipalities in the Gaza Strip, Palestine towards the concept of knowledge management, its application, alongside its impact on the functional level. The results revealed that the studied municipalities adopted the concept of knowledge management from the managers' perspectives. Moreover, there are positive trends among managers in these municipalities regarding the knowledge management's role in improving job performance and supporting strategic decision-making. Also, there is a statistically significant relationship between knowledge management processes and the level of job performance based on the municipal administrators' attitudes. Another study by Al-Sabbagh (2012) defined the term "knowledge management" and identified its components in comparison with "information management". The author has examined the strategic role of knowledge management in today's societies and organizations in achieving the competitive progress of society or the organization and supporting the decision-making process. The results showed that although the two terms seem similar, they are different concepts. The results also indicated that knowledge management can contribute to laying the foundation of the information society through effective exchange of ideas, thereby allowing greater use of available mental resources, and a higher possibility for innovation and development. Similarly, a study was conducted to investigate the support provided by strategic knowledge. This knowledge is generated from the environmental analysis process of organizational intelligence of business managers by providing them with accumulated information about the analysis of the internal environment (i.e., strengths and weaknesses) and the external environment (i.e., opportunities and threats). It was found that the managers are not fully aware of the role of strategic knowledge in generating strategic intelligence to make plans and adapt to environmental changes to achieve a competitive advantage (Al-Kawaz et al., 2012). Additionally, a model for developing managerial innovation, which is based on organizational intelligence was formulated by Abdel-Rahman (2013). The study addressed various challenges that are encountered by the organization. A descriptive approach and a strategic analysis method were used to provide strategic alternatives, in addition to a survey to identify the factors that help in identifying and formulating alternatives and strategic options for developing management innovation. As a result, key mechanisms to apply the proposed model were identified and potential obstacles and ways of overcoming them were clarified. In the Iranian context, the relationship between organizational intelligence and performance of managers in several educational institutions in Tehran was examined. A statistically significant relationship was found between organizational

intelligence and managers' performance, which resulted in improving organizational performance and increasing productivity (Safae & Gholami, 2012).

There is no doubt that previous research has made contributions to human resources management and organizational behaviour. However, most previous studies on organizational intelligence and its impact on supporting strategic decisions were conducted in Western contexts. Studies on Arab countries are, therefore, limited, particularly in the Saudi organizations' context. Also, despite the extensive literature in the areas of organizational intelligence, KMTM, and strategic decision-making, linking these three aspects in potentially significant relationships needs to be considered. Moreover, previous research is scarce regarding the effect of the relationship between organizational intelligence and KMTM on supporting strategic decisions to enhance the organization's competitiveness and achieve organizational excellence. Furthermore, most previous studies were conducted on profit organizations, but this study involves service organizations (i.e., the educational services sector). This study investigates

- The level of organizational intelligence among the study respondents.
- The relationship between organizational intelligence and strategic decision-making.
- The relationship between KMTM and strategic decision-making.
- The relationship between organizational intelligence and KMTM.
- The impact of job involvement on the relationship between organizational intelligence and the strategic decision-making process.
- The impact of KMTM on the relationship between organizational intelligence and strategic decision-making process.

3 METHODOLOGY

This study examines the mediating impact of knowledge management technology mechanisms (KMTM) on the relationship between organizational intelligence and supporting strategic decision-making in private educational institutions in Saudi Arabia. Accordingly, a case study design is implemented in this research, which aims to provide detailed insights into the factors that address real-life situations related to the objectives of the study. The respondents were divided into three categories, including managers and high administration level, employees and teaching staff at the selected private educational institutions.

3.1 DATA COLLECTION

The methodology of this study involves using the quantitative approach. Primary data were collected by the researcher via a survey questionnaire administered to selected categories of employees in the selected private educational institutions in Saudi Arabia. Secondary data were also used in this study, which involves previous data and studies in the field of organizational intelligence and supporting strategic decision-making. The respondents of the questionnaire are classified into three categories. They are managers and high administration level, employees, and teaching staff. The questionnaire was administered to a total number of respondents (420) from the three categories of the study population. Table 1 illustrates the total number of distributed questionnaires and the response rate of each category of respondents.

Table 1: Number of distributed questionnaires and response rate

Respondents	Distributed Questionnaires	Returned Questionnaires		Incomplete Questionnaires		Complete Questionnaires	
		No.	%	No.	%	No.	%
Managers	30	27	90.0	1	3.3	26	86.7
Employees	140	134	95.7	6	4.3	128	91.4
Teaching Staff	250	245	98.0	5	2.0	240	96.0
Total	420	405	96.4	11	2.6	394	93.8

3.2 RELIABILITY AND VALIDITY OF THE QUESTIONNAIRE

The SPSS software was used to perform the statistical analysis of the data, including the reliability of variables and hypotheses testing. Cronbach's alpha reliability coefficient was used for measuring the internal consistency, i.e., for assessing the reliability of a set of statements that measure a given variable, which can lead to the possibility of generalizing the results. Table 2 illustrates the values of the alpha coefficients for the main variables, which were measured by using more than one sub-variable.

Table 2: Reliability of the study variables

Variables of the Study	Alpha	Reliability
Organizational Intelligence	0.783	0.864
Supporting Decision-Making	0.826	0.810
Job Involvement	0.726	0.711
Knowledge Management Technology Mechanisms (KMTM)	0.711	0.654

Table 2 illustrates a high internal consistency, i.e., the items on the questionnaire are closely related and, therefore, the reliability of the variables of the study was achieved. Also, the values of Cronbach's alpha coefficient of the study variables, which ranged (from 0.6542 to 0.8643), are acceptable, which indicates that the generalization of the results can be achieved.

4 RESULTS AND DISCUSSION

4.1 THE LEVEL OF ORGANIZATIONAL INTELLIGENCE

Table 3, the respondents showed positive perceptions and attitudes towards organizational intelligence. The variables' SD is less than one, which means that there is consistency in the answers about the level of organizational intelligence in the selected institutions.

Table 3: Respondents' perceptions about the organizational intelligence level

Factor	Managers			Employees			Teaching staff		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
Prospecting	4.51	0.34	4	4.72	0.42	2	4.40	0.39	2
Systems Thinking	4.79	0.41	2	4.68	0.39	4	4.65	0.36	4
Vision	4.33	0.32	5	4.72	0.41	3	4.31	0.33	5
Motivation	4.68	0.37	3	4.52	0.36	5	4.90	0.40	3
Partnership	4.76	0.46	1	4.85	0.51	1	4.81	0.43	1

Kruskal Wallis test was also used to test the significance of differences between the averages of the respondents' perceptions towards the organizational intelligence level as illustrated in Table 4.

Table 4: The significance of differences between the averages of the respondents' perceptions towards the organizational intelligence level results

Variable	Estimates			(Ka2) Kruskal Wallis	Significance Level	Type of Difference
	Managers	Employees	Teaching staff			
Prospecting	4.74	4.79	4.81	7.121	0.037	Insignificant
Systems Thinking	4.63	4.51	4.83	0.967	0.169	Significant*
Vision	4.79	4.63	4.59	6.213	0.039	Insignificant
Motivation	4.29	4.69	4.27	5.631	0.044	Insignificant
Partnership	4.55	4.81	4.39	8.632	0.026	Insignificant

(*) significant at 10% level of significance

Table 4 shows that there are no statistically significant differences between the averages of the respondents' perceptions towards organizational intelligence at the level of significance 0.05, 0.01. The respondents agreed that there is a high level of organizational intelligence among those in charge of institution administration and teaching departments in the selected educational institutions. Moreover, ANOVA, F. Ratio, and T. Test were used to verify the results, which showed that there is a high level of organizational intelligence among the study respondents in the selected organizations.

4.2 THE RELATIONSHIP BETWEEN ORGANIZATIONAL INTELLIGENCE AND STRATEGIC DECISION-MAKING

The relationship between organizational intelligence and strategic decision-making is tested using the Kruskal Wallis test to examine the significance of variation between averages of the respondents' perceptions, related to the relationship between organizational intelligence and strategic decision-making. Based on the statistical results in Table 5, there are no statistically significant differences between averages of the respondents' perceptions about the relationship between organizational intelligence and the strategic decision-making process at the level of significance 0.05, 0.01. This means that the three categories of respondents agreed that there is a relationship between organizational intelligence and strategic decision-making.

Table 5: Results of the relationship between organizational intelligence and strategic decision-making test

Variable	Estimates			(Ka2) Kruskal Wallis	Significance Level	Type of Difference
	Managers	Employees	Teaching staff			
Prospecting	4.72	4.85	4.76	7.013	0.026	Insignificant
Systems Thinking	4.61	4.51	4.84	9.767	0.014	Insignificant
Vision	4.85	4.62	4.60	6.251	0.048	Insignificant
Motivation	4.28	4.73	4.24	8.432	0.042	Insignificant
Partnership	4.48	4.78	4.39	8.691	0.039	Insignificant
Supporting Strategic Decisions	4.69	4.41	4.58	7.201	0.044	Insignificant

* significant at 10% level of significance

To verify the results, T. Test, F. Ratio, and ANOVA were used to test the significance of variation between averages of the study respondents' perceptions as illustrated in Table 6. Based on the test results, there is no significant variation between the respondents' perceptions about the relationship between organizational intelligence and the strategic decision-making process. Also, the results showed that there is a statistically significant relationship between organizational intelligence and strategic decision-making. Moreover, the calculated F and T values are greater than the tabular values, which showed that there is a statistically significant relationship between organizational intelligence and strategic decision-making in the selected institutions.

Table 6: The significance of variation between averages of the study respondents' perceptions analysis results

Category	Factor	Mean	SD	Coefficient of Determination (R ²)	F- value	T-value
Managers	B ₁	4.26	0.52	0.419	18.926	4.83
Employees	B ₂	4.53	0.44	0.550		7.39
Teaching Staff	B ₃	4.33	0.41	0.466		5.81

4.3 THE RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT TECHNOLOGY MECHANISMS AND STRATEGIC DECISION-MAKING

The relationship between KMTM and strategic decision-making is examined using the “Kruskal Wallis” test to examine the significance of variation between averages of the respondents' perceptions about the relationship between KMTM and supporting the strategic decision-making process as shown in Table 7.

Table 7: Results of the relationship between KMTM and strategic decision-making test

Variable	Estimates			(Ka2) Kruskal Wallis	Significance Level	Type of Difference
	Managers	Employees	Teaching staff			
Knowledge management technology mechanisms	4.09	4.14	4.41	8.023	0.039	Insignificant
Supporting strategic decision-making	4.73	4.41	4.59	7.205	0.046	Insignificant

* significant at 10% level of significance

Additionally, t-test, F. Ratio, and ANOVA were used to verify the results and assess the significance of variation between averages of the respondents' perceptions as shown in Table 8.

Table 8: The significance of variation between averages of the respondents' perceptions analysis results

Category	Factor	Mean	SD	Coefficient of Determination (R ²)	F- value	T-value
Managers	B ₁	3.82	0.39	0.567	17.256	7.69
Employees	B ₂	3.72	0.41	0.483		6.15
Teaching Staff	B ₃	3.77	0.46	0.462		4.31

According to the results in Table 7 and Table 8, there is not a statistically significant relationship between KMTM and supporting the strategic decision-making process. This study finds a statistically significant relationship between KMTM and strategic decision-making.

4.4 THE RELATIONSHIP BETWEEN ORGANIZATIONAL INTELLIGENCE AND KNOWLEDGE MANAGEMENT TECHNOLOGY MECHANISMS

The relationship between organizational intelligence and KMTM is verified using the Kruskal Wallis test to examine the significance of variation between averages of the respondents' perceptions about the relationship between organizational intelligence and KMTM. Table 9 illustrates the results of this test.

Table 9: Results of the relationship between organizational intelligence and KMTM test

Variable	Estimates			(Ka2) Kruskal Wallis	Significance Level	Type of Difference
	Managers	Employees	Teaching staff			
Organizational intelligence	4.16	4.59	4.23	8.021	0.199	Significant*
Knowledge Management technology mechanisms	4.55	4.11	4.89	7.096	0.39	Insignificant

*significant at 10% level of significance

To verify the results, T-Test, F. Ratio, and ANOVA were used to test the significance of variation between averages of the respondents' perceptions as illustrated in Table 10. The results in Tables 9 and 10 showed a statistically significant relationship between organizational intelligence and KMTM.

Table 10: The significance of variation between averages of the respondents' perceptions variation analysis results

Category	Factor	Mean	SD	Coefficient of Determination (R ²)	F- value	T-value
Managers	B ₁	3.49	0.36	0.458	16.183	7.39
Employees	B ₂	3.02	0.51	0.409		5.08
Teaching Staff	B ₃	3.19	0.43	0.437		4.92

4.5 THE IMPACT OF JOB INVOLVEMENT ON THE RELATIONSHIP BETWEEN ORGANIZATIONAL INTELLIGENCE AND SUPPORTING STRATEGIC DECISION-MAKING

Table 11 illustrates the regression analysis used to test the impact of the relationship between organizational intelligence and job Involvement on supporting strategic decision-making. The results showed that supporting the strategic decision-making process is affected by the relationship between organizational intelligence and job involvement. This relationship can significantly affect strategic decision-making due to the high correlation coefficient of 0.689 and the coefficient of determination (R²) value, whereby the mediating variable (i.e., the relationship between organizational intelligence and KMTM) accounted for 33% of the variance in the dependent variable (i.e., supporting strategic decision-making). Therefore, it can be concluded that the relationship between organizational intelligence and KMTM has a significant influence on supporting strategic decision-making.

Table 11: Results of the relationship between organizational intelligence and knowledge management technology mechanisms on supporting strategic decision-making test.

Variables Ranking	Variable	Correlation Coefficient (R)	Coefficient of Determination (R ²)	F- value	Standardized regression coefficients (Beta)	T-value
1	Organizational intelligence	0.393	0.15	11.365	0.04	6.85
2	Job involvement	0.482	0.26	17.362	0.15	8.22
3	Relationship between organizational intelligence and job involvement	0.689	0.32	14.859	0.31	4.95

4.6 THE IMPACT OF KNOWLEDGE MANAGEMENT TECHNOLOGY MECHANISMS ON THE RELATIONSHIP BETWEEN ORGANIZATIONAL INTELLIGENCE AND SUPPORTING STRATEGIC DECISION-MAKING

Regression analysis is used to test the impact of the relationship between organizational intelligence and KMTM on supporting strategic decision-making as illustrated in Table 12. The results showed that supporting the strategic decision-making process is affected by the relationship between organizational intelligence and KMTM. This relationship can significantly affect strategic decision-making due to the high correlation coefficient of 0.706 and the coefficient of determination (R^2) value, whereby the mediating variable (i.e., the relationship between organizational intelligence and KMTM) accounted for 33% of the variance in the dependent variable (i.e., supporting strategic decision-making). Therefore, it can be concluded that the relationship between organizational intelligence and KMTM has a significant influence on supporting strategic decision-making.

Table 12: Results of the relationship between organizational intelligence and knowledge management technology mechanisms on supporting strategic decision-making test.

Variables Ranking	Variable	Correlation Coefficient (R)	Coefficient of Determination (R^2)	F- value	Standardized regression coefficients (Beta)	T-value
1	Organizational intelligence	0.411	0.17	12.358	0.06	7.09
2	Knowledge management technology mechanisms	0.528	0.28	16.055	0.18	8.31
3	Relationship between organizational intelligence and knowledge management technology	0.706	0.35	15.014	0.29	5.09

5 CONCLUSION

Organizational intelligence involves the capability of an organization to create and use the knowledge that is relevant to its purpose and goals. Organizational intelligence provides important information for decision-makers, particularly strategic decisions, and how to develop strategic business intelligence as a form of organizational intelligence, thereby improving the performance of the organization. The reviewed literature has shown that genuine endeavours were exerted to enhance organizational intelligence, given that strategic, tactical, and operational business intelligence all play a key role in achieving sustainable business competitiveness, which can result in building a smart organization. This involves cultivating a set of values, ideas, and methods of doing business to achieve the required strategic change. Organizational intelligence represents one factor, among others, of competitiveness to create a smart organization. It is an effective tool to guide the organization towards achieving its goals, addressing challenges, maintaining its position, prospecting the future, enabling its leaders to seize opportunities, and adapting to on-going changes. Therefore, competitiveness and the search for new methods to access “smart” strategic information have become vital in strategic planning considering the global changes, which are characterized by complexity and uncertainty to achieve specific long-term goals of intellectual activities, which require creativity. As a result, this helps strategic managers in formulating a crystal-clear vision of an ever-changing future.

Therefore, knowledge management technologies, which support knowledge management

systems, are essentially required to achieve organizational intelligence and create smart organizations. These include Artificial Intelligence, Group Decision Support Systems, Expert Systems, Knowledge-Based Systems, Case-Based Reasoning Systems, and Knowledge Elicitation Systems. In the field of organization management, knowledge management is a key factor in the success of organizations, given that knowledge is the human resources' intellectual capabilities; it depends on their intuition, expertise, unconventional skills, and innovative capabilities.

Knowledge management systems play an important role in solving organizational problems and addressing challenges. Therefore, Saudi educational institutions should invest in what knowledge management mechanisms and technologies can provide to support knowledge management processes. This study contributes to the body of knowledge, particularly in the Saudi context as it examined the relationship between important variables in the widely researched field of organizational behaviour (i.e., organizational intelligence and KMTM). Another key factor, which influences the relationship between organizational intelligence and supporting strategic decision-making is job involvement. Therefore, Saudi educational institutions should consider increasing the level of job involvement or work engagement among their employees.

Therefore, the private educational institutions in Saudi Arabia are required to adopt strategies of developing organizational intelligence, involving its three levels. This can be done through special computer programs to train managers on how to use business intelligence, to nurture the culture of organizational intelligence, and emphasize its role in decision-making. Moreover, it is necessary to establish an organizational intelligence unit to provide educational institutions with the required information. This can contribute to shaping their future milestones regarding beneficiaries of their educational services. It is also essential to conduct periodic assessments of the potential risks, monitor changes that affect these universities' activities, and support decision-making. Furthermore, a focus should be placed on developing business intelligence among knowledge producers cooperating with organizational intelligence experts from abroad for training workshops on how to use strategic business intelligence and employ it to support the decision-making process.

Educational organizations should attract employees and teaching staff with reflective, analytical, and predictive capabilities by including specific questions in the employment application to evaluate the applicants' strategic intelligence. It is also recommended to raise awareness and establish the concepts of organizational learning and smart organization among the employees of Saudi educational institutions through specialized courses and workshops. Conferences and seminars can contribute to the consolidation of the smart organization concept in the Arab Gulf countries, in general, and particularly in the educational services sector to increase administrative awareness of this concept.

6 AVAILABILITY OF DATA AND MATERIAL

Information can be made available by contacting the corresponding author.

7 REFERENCES

- Abdel-Rahman, A. E.-S. (2013). *Developing administrative innovation in the light of organizational intelligence*. Ain Shams University, Egypt.
- Ajay, S., & Bindu, G. (2015). Job involvement, organizational commitment, professional commitment, and team commitment: A study of generational diversity. *Benchmarking*, 22(6), 1192–1211. DOI:

- Al-Abadi, H. F. (2012). Organizational intelligence as a business practice towards establishing a smart organization: A conceptual perspective. *The 11th Annual Scientific Conference on Business Intelligence and Knowledge Economy*.
- Al-Kawaz, S. M., Yahya, A., & Ibarhim, T. (2012). The contribution of strategic knowledge in promoting strategic intelligence: A case study at Asiacell Communications Company in Iraq. *Journal of Advanced Social Research, 1*, 170-188.
- Al-Obaidi, A. H. (2010). *Information technology and strategic thinking and their impact on organizational innovation strategy: A field study at Al-Mustansiriyah University Colleges*. Al-Mustansiriyah University, Iraq.
- Al-Sabbagh, E. A.-W. (2012). *Knowledge management and its role in establishing the information society*. The International Information Network.
- Al-Saed, R., & Hareem, H. (2004). The Role of knowledge management and information technology in creating competitive advantage: A field study on the pharmaceutical industry sector in Jordan, The Fourth Scientific Conference on Knowledge Management. *The Fourth Scientific Conference on Knowledge Management*.
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD-R approach. *Annual Review of Organizational Psychology and Behavior, 1*(1), 389-411.
- Clar, G., Acheson, H., Hafner-Zimmermann, S., Sautter, B., Buczek, M., & Allan, J. (2008). *Strategic Policy Intelligence Tools: Enabling Better RTDI Policy-Making in Europe's Regions*, Steinbeis.
- Conklin, J. (1997). Designing organizational memory: preserving intellectual assets in a knowledge economy. *Group Decision Support Systems, 1*, 362.
- Gadman, S. (2005). Managing Knowledge-Creating Relationships. *Asian Journal on Quality, 6*(2), 46–58. DOI: 10.1108/15982688200500013
- Hanebeck, H. (2000). Business Processes for a Distributed Learning Environment. *Turkish Online Journal of Distance Education, 1*.
- Healey, D. P. (2004). *Developing Decision-Making Skills in United States Naval Academy Midshipmen*. University Circle, Monterey, CA.
- Keller, R. T. (1997). Job involvement and organizational commitment as longitudinal predictors of job performance: A study of scientists and engineers. *Journal of Applied Psychology, 82*(4), 539–545.
- Kuhlmann, S., Boekholt, P., Georghiou, L., Guy, K., Heraud, J.-A., Laredo, P., Lemola, T., Loveridge, D., Luukkonen, T., Moniz, A., Polt, W., Rip, A., Sanz-Menendez, L., & Smits, R. (1999). *Improving Distributed Intelligence in Complex Innovation Systems*.
- Madhi, S. (2011). *Attitudes of managers in major municipalities in Gaza Strip on the role of knowledge management in job performance*. Islamic University, Gaza.
- Pauker, B., Whitaker, J., McCauley, J., Piper, M., & Teoh, K. (2000). *Strategic Intelligence, Providing Critical Information for Strategic Decision*. Corporate Executive Board, Corporate Strategy Board.
- Safaei, S., & Gholami, S. (2012). The study of the degree of one of the Iranian governmental organizations with correspondence characteristics of a learning organization. *Journal of Educational & Instructional Studies in the World, 2*(3), 69–77.
- Shimazu, A., Schaufeli, W. B., Kamiyama, K., & Kawakami, N. (2015). Workaholism vs. Work Engagement: the Two Different Predictors of Future Well-being and Performance. *International Journal of Behavioral Medicine, 22*(1), 18–23. DOI: 10.1007/s12529-014-9410-x
- Ting, S. C., & Ho, M. H. (2017). The Influence of Workplace Friendship, Job Involvement, and Organizational Identification on Job Performance: Administrative Staffs of Private Science and Technology Universities in South Taiwan as an Example. *International Journal of Humanities and Social Sciences, 9*(6), 46–57.

- Turyamuhaki, A. (2019). *The influence of job involvement on employee performance among lecturers in public universities: a case of Makerere University Kampala Uganda*. Makerere University.
- Wagner, L., & Van Belle, J. P. (2005). Web Mining for Strategic Intelligence in South Africa. *6th IAABD Conference, Dar Es Salaam*.
- Yoshizawa, G. (2008). *What is the use of policy analysis? Plurality and context in perspectives on strategic intelligence in Japan*. The University of Sussex.
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