



The mediating effect of entrepreneurial orientation on the impact of knowledge management processes on successful organizational performance at industrial sector in Jordan

Hisham Mbaidin

*Business School, Management Information Systems Department, Mutah University.
College of Economics and Management, Department of Economics and Management,
Al QASIMIA UNIVERSITY, UAE
Email: h_mobaideen@yahoo.com*

Received 3 March 2022 Accepted 17 November 2022

ABSTRACT The study aimed to identify the mediating effect of entrepreneurial orientation on the impact of knowledge management processes on successful organizational performance at industrial sector in Jordan. A quantitative questionnaire survey is conducted. The study population consisted of all senior and middle administrations and employees in the pharmaceutical industry companies in Jordan. The study sample consisted of (150) senior and middle administrations, and (250) employees. The study sample was selected by random stratified method. The results revealed that There is an impact of knowledge management on the Organizational performance at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan. Furthermore, there is an impact of knowledge management on the Entrepreneurial Orientation at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan. Our research mainly contributes to suggesting a new mechanism for applying knowledge management and leadership, which has been turned into a tool for improving organizational performance in the company and delivering a high quality product. This new mechanism contains five steps that managers and employees can apply.

KEYWORDS: Entrepreneurial Orientation; Knowledge Management Processes; Organizational Performance; Industrial Sector

1. INTRODUCTION

Knowledge management is one of the tools that contribute to increasing speed and improving performance (Allameh & Zare, 2011; Khan et al., 2021). As knowledge is a major robust source of funding within institutions (Claver-Cortés et al., 2007), so Companies and institutions must pursuit of having knowledge in order to develop their production (Zaim et al., 2019). Knowledge management constitutes a set of interrelated and connected procedure that work within the organization in order to find, process and develop knowledge to be

later used in the best way for the interest of the organization and the different administrative sectors within (Daud, S., & Yusuf, 2008; Alghail et al., 2021).

Schmitz et al., (2014) believes that, knowledge management has taken a great deal of interest and has become an important part within any company's production operations and processes (Yusr et al., 2017). According to business scope, knowledge management has been considered as a distinctive mark for the most effective institutions from a strategic point of view (Areed at al., 2021). The dynamic environment within the institutions provides

its employees with support and motivate them to be more productive and active (Al Shraah et al., 2021).

Given the importance of knowledge management, many researchers have analyzed it from different points of view. Schmitz et al. (2014) delved into the study of the impact of knowledge management with its various aspects and relationship with the organization Allameh & Zare (2011) studied the impact of knowledge management on corporate sustainability and found significant and positive results.

The successful key for the Companies is providing support and attention to their employees (Anwar & Abdullah, 2021; Shanker et al., 2017). The commitment of senior management and staff discipline is very important at this stage (Hamza et al., 2021; Pang & Lu, 2018). Senior management facilitates a culture of learning and knowledge management in the organization (George et al., 2019). Serrat (2017) argues that knowledge-oriented leadership is the most important part because it can lead the company towards excellence and development.

Entrepreneurship orientation is considered one of the basic and successful methods in knowledge management and organization, and it is widely applied because of benefits in raising the level of companies and their employees achievement. (Tajeddini et al., 2020; Corrêa et al., 2021). Various definitions of entrepreneurial orientation are available in the literature. Entrepreneurial orientation executives are crafting strategies in the hopes of doing something new and exploiting opportunities that other organizations cannot exploit. (Wales et al., 2019; Arzubiaga et al., 2018). The entrepreneurial orientation organizes plans, ideas and workers within the company in order to create beneficial job opportunities for the sake of the company itself as well as the customers. (Genc et al., 2019; Jiang et al., 2018).

This paper includes three sections; it begins with a review of the current literature on knowledge management processes, organizational performance, and entrepreneurial orientation, followed by defining the research model and hypotheses. Finally, it ends with the results and conclusion, as it will add a contribution to industrial companies from the perspective of the capabilities of knowledge management and what it reflects positively on improving organizational management, and increasing the company's entrepreneurial orientation.

2. LITERATURE REVIEW

2.2 Knowledge management

Entrepreneurial orientation refers to the organization's adoption of the concepts of initiative and innovation, and risk tolerance, as a strategic approach based on experimenting with innovative ideas and diversity in the use of modern management strategies (McKenny et al., 2018). Thus, the entrepreneurial orientation leads organizational performance towards excellence (Monteiro et al., 2019). The entrepreneurial orientation reflects the organization's ability to achieve compatibility and efficiency with business requirements and adapt to changes in the labor market (Ključnikov et al., 2019). The rapid changes and transformations witnessed in recent years in all areas surrounding business organizations at the economical, scientific, technological, social, political, legal and cultural levels have exacerbated the intensity of competition between the industrial organizations (Wales et al., 2020). Whereas Entrepreneurial orientation helps industrial establishments to implement entrepreneurial strategies that create prosperity (Zhai et al., 2018). The entrepreneurial orientation is divided into six elements (identifying opportunities, growth, creativity, adopting risk, flexibility, and vision (Alshanty & Emeagwali, 2019).

Knowledge is the essential organizational resource for companies in the twenty-first century, which can achieve a sustainable competitive advantage in the long term. Many studies have focused on the importance of knowledge management (Webb, 2017). Knowledge management processes have become one of the international trends of entrepreneurship, as knowledge management forms part of the organization's assets that lead it towards better performance, through obtaining, storing, sharing, and processing information in order to enhance its strategy, and providing the necessary information so that members of the organization make the right decisions (Abubakar et al., 2019).

To achieve better corporate performance, entrepreneurs need to use knowledge management to improve the quality of their decision-making (Zhang & Venkatesh, 2017). Knowledge management is also dynamic and multidimensional, covering most aspects of corporate knowledge activities, including knowledge creation, knowledge accumulation and knowledge exchange (Anwar & Ghafoor, 2017).

Knowledge management can be defined as the various administrative processes that a company devote to the production, distribution and use of knowledge to enhance organizational performance through knowledge acquisition, sharing and application (Durst & Zieba, 2019). Knowledge management can also be defined as the pursuit of knowledge in all its explicit and implicit forms, documenting and sharing it with all stakeholders in the company, and applying it in a way that guarantees the organization's advancement and progress (Abualoush et al., 2018).

Knowledge management is one of the most important requirements that any company or institution needs to ensure its progress and its development in light of the tremendous technological progress witnessed by the business sector in the current era (Ali & Anwar, 2021). Where companies, especially industrial ones, are interested in investing in the knowledge management projects and applying them to achieve success and continuity in the labor market (Al-Ahbab et al., 2017). As companies have become more interested in knowledge management, as a result of the huge developments and changes on the one hand, and the increasing intensity of competition, and the multiplicity of requirements and needs of the customers on the other hand (Barley et al., 2018).

Knowledge management has become the focus of companies' attention through their reliance on information and knowledge and their use in designing and developing services (Othman et al., 2019), and technologies in order to renew their methods of providing services efficiently and quickly to customers compared to their competitors from other companies (Bolisani & Bratianu, 2017).

Knowledge management helps the industrial sector to take decisions at all administrative levels within the company, which leads to increase better competitiveness (Gopinath, 2021). It also helps to increase the stock of knowledge owned by the company, which leads to enhancing the capabilities of employees in their field of work, which is reflected positively on their performance (Gacanin, 2019). The knowledge management also contributes to identifying and understanding all the knowledge available in the company, which facilitates the process of investing it in an optimal manner and building a future vision based on it. Knowledge management also helps to consolidate the concept of knowledge culture within the minds of all employees, by

encouraging behaviors of discovery and sharing of knowledge (Abdi et al., 2018).

2.3 Organizational performance

Organizational performance is one of the most important foundations upon which organizations and companies are built, and organizational performance expresses the features of the organization that distinguish it from other companies and organizations in the labor market (Al Khajeh, 2018). Organizational performance represents the values and principles prevailing in the organization's internal work environment, which regulate work strategies, ideas and visions that help develop the organization and ensure its continuity (Schneider et al., 2018).

Organizational performance also helps to develop the capabilities of all employees in the organization, increases their loyalty, and enhances interdependence among them. Successful organizational performance gives the organization a competitive advantage that helps attract both customers and qualified employees, and helps the administrative staff to make decisions that will develop the organization and increase its productivity. Organizational performance is a major component of the components and foundations of modern organizations, as it is seen as one of the entrances to change, improvement and development (Khalid et al., 2019).

The identification of organizational performance helps in revealing the extent of the organization's ability to confront environmental determinants and identify the organization's goals and resources (Mbaidin, 2021). Organizational performance is a reflection of how the organization uses its available financial and human resources and invests them in a way that makes it able to achieve its goals (Alghamdi, 2018). The organizational performance is the sum of all the operations carried out by the organization and all the strategies and plans it follows in order to increase its competitiveness in the labor market (Al Khajeh, 2018).

Organizational performance can be defined as defining interests, improving basic processes, appropriate allocation of human, material, financial and information resources, and effective management capable of developing clear, understandable and well-known strategies for employees (Abubakar et al., 2019). Organizational performance can also be

defined as the organization's use of its financial, human resources, and the exploitation of these resources in a way that gives it the ability to achieve the desired goals or that it seeks to achieve (Muthuveloo et al., 2017).

The effective performance of the organization is achieved through its ability to manage its internal capabilities, which gives it the ability to adapt to the surrounding environmental changes in order to innovate and renew in a way that meets the changing needs of customers and achieves its goals and objectives (Andrew, 2017). Where organizational performance helps to develop human capital, increase profits, sales growth, market share, productivity, and liquidity ratio (Anwar & Abdullah, 2021).

The importance of organizational performance revolves around increasing the profits of the organization, without which the organization will not be able to grow and develop in its field of business, and urging all employees of the organization to invent new marketing and creative methods that contribute to the development or discovery of new products or entering new markets (George et al., 2019). Organizational performance also helps to increase administrative productivity rates and administrative capabilities towards achieving outstanding performance (WANASIDA et al., 2021).

2.4 Conceptual Framework

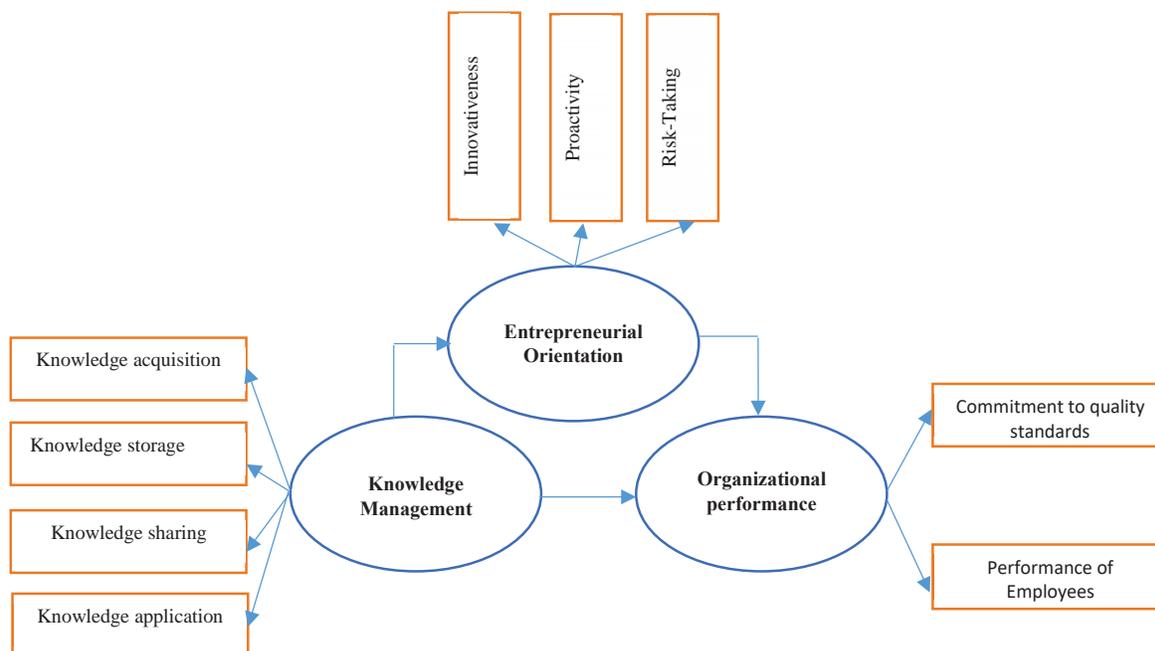


Figure 1 Conceptual Framework.

3. RESEARCH METHODOLOGY

3.1 The Research Method

In order to analyse the mediating effect of entrepreneurial orientation on the impact of knowledge management processes on successful organizational performance at industrial sector in Jordan the quantitative approach was used as it fits the purpose of the study. Quantitative approach is concerned with the gathering and examination of information in numeric shape from the chosen sample.

3.2 The Research Hypothesis

The hypotheses can be presented as follows:

First Hypothesis (H_{01}). There is no impact of knowledge management and its variables (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) on the Organizational performance and its variables (Performance of Employees, Commitment to quality standards) at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan.

Second Hypothesis (H_{02}). There is no impact of knowledge management and its variables (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) on the Entrepreneurial Orientation

and its variables (Innovativeness, Proactivity, Risk-Taking) at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan.

Third Hypothesis (H_{03}). There is no impact of Entrepreneurial Orientation and its variables (Innovativeness, Proactivity, and Risk-Taking) on the Organizational performance and its variables (Performance of Employees, Commitment to quality standards) at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan.

Forth Hypothesis (H_{04}). There is no impact of knowledge management and its variables (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) on the Organizational performance and its variables (Performance of Employees, Commitment to quality standards) in the presence of Entrepreneurial Orientation as a mediating variable at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan

3.3 The Research Instrument

The tool contains (36) items which the questionnaire was distributed by hand.

Questionnaire contains (4) demographic variables and (36) items represent study variables.

3.4 Data Analysis and Interpretation

To examine the mediating effect of entrepreneurial orientation on the impact of knowledge management processes on successful organizational performance at industrial sector in Jordan. Statistical Package for Social Sciences (SPSS) in processing the following statistical techniques and tests in data analysis:

1. Reliability Test
2. Frequencies and percentages
3. Descriptive Statistical Techniques
4. Multiple Regression
5. Structural Equational Model (SEM)

Table 1 Demographic characteristics for the study sample.

Demographic	Groups	Sample	
		Frequency	Percentage
Gender	Male	321	80.2
	Female	79	19.8
	Total	400	100%
Academic Level	Bachelor's Degree	300	75.0
	Master's Degree	81	20.2
	Doctorate Degree	19	4.8
	Total	400	100.0%
Years of Experience	Less than 1 year	9	2.3
	1-3 years	9	2.3
	0-5 years	57	14.3
	More than 5 years	325	81.1
	Total	400	100.0%
Job Position	Administration	150	37.5
	Employee	250	62.5
	Total	400	100.0%

Table 2 Cronbach's alpha for the study fields.

Field number	Field	Value of (α)
Independent Variables: Knowledge Management		
F1-1	Knowledge acquisition	0.841
F1-2	Knowledge storage	0.909
F1-3	Knowledge sharing	0.824
F1-4	Knowledge application	0.784
Dependent Variable: Organizational performance		
F2-1	Commitment to quality standards	0.859
F2-2	Performance of Employees	0.742
Mediating Variable: Entrepreneurial Orientation		
F3-1	Innovativeness	0.838
F3-2	Proactivity	0.856
F3-3	Risk-Taking	0.873

As shown from the table above that the total Cronbach's alpha for the study fields was above than (0.60) which will lead to the stability of the results for this study.

3.5 Study Sample

The study population consisted of all senior and middle administrations and employees in the pharmaceutical industry companies in Jordan. The study sample consisted of (150) senior and middle administrations, and (250) employees. The study sample was selected by random stratified method. As it is classified into its demographic characteristics in the tables below:

3.6 Validity and reliability of the instruments

After preparing the questionnaire in its initial form, it was presented to a group of experts specialized in business administration in Jordanian universities, and they were asked to express their opinion on the appropriateness of the paragraphs of the tool and the subject of the study, and to ensure the linguistic formulation of the test questions, and the clarity of the test instructions. Based on the opinions of the experts, some amendments were made, and some vocabulary was checked. After taking the opinions of experts, the questionnaire was modified based on their observations, and the questionnaire had an appropriate degree of apparent honesty.

To reach a degree of reliability of the test, the researcher used Reliability test for the instruments of measurement the reliability of a measure highlights the stability of consistency with which the instrument is measuring the concept and helps to assess the 'goodness' of a measure, in order to compare if the students achieve stability.

3.7 Study Results

First Hypothesis (H_{01}). There is no impact of knowledge management and its variables (Knowledge acquisition, Knowledge storage,

Knowledge sharing, Knowledge application) on the Organizational performance and its variables (Performance of Employees, Commitment to quality standards) at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan.

To test this hypothesis, the researcher uses the multiple regression analysis. As shown in Table (3).

Table (3) clarify that there is significant impact of knowledge management and its variables on the Organizational performance in pharmaceutical industry companies in Jordan. The significant value was (0.000) less than (0.05). The value of R is the square root of R-Squared and is the correlation between the observed and predicted values of dependent variable was (0.651). The coefficient of determination R^2 (0.424) thus, about 42.4% of the variation in Organizational performance explained by knowledge management and its variables in pharmaceutical industry companies in Jordan. Restriction Parameter (F) was (72.785) of the Organizational performance in pharmaceutical industry companies in Jordan will be caused from for knowledge management specially (Knowledge Sharing and Knowledge Application).

Second Hypothesis (H_{02}). There is no impact of knowledge management and its variables (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) on the Entrepreneurial Orientation and its variables (Innovativeness, Proactivity, Risk-Taking) at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan.

To test this hypothesis, the researcher uses the multiple regression analysis. As shown in Table (3).

Table (3) demonstrate that there is significant impact of knowledge management and its variables on the entrepreneurial orientation in pharmaceutical industry companies in Jordan. The significant value was (0.000) less than (0.05). The value of R is the square root

Table 3 Multiple Regression test to check the direct effect knowledge management and its variables (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) on the Organizational performance in pharmaceutical industry companies in Jordan.

Dependent Variable	(R)	(R ²)	F Calculate	DF	Sig*	B	T Calculate	Sig*	
Organizational performance	0.651	0.424	72.785	4	0.000	Knowledge Acquisition	.098	1.815	.070
				395		Knowledge Storage	.049	.612	.541
				399		Knowledge Sharing	.233	3.009	.003
						Knowledge Application	.857	8.832	.000

* impact is significant at level ($\alpha \leq 0.05$).

Table 4 Multiple Regression test to check the direct effect knowledge management and its variables (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) on the entrepreneurial orientation in pharmaceutical industry companies in Jordan.

Dependent Variable	(R)	(R ²)	F Calculate	DF	Sig*	B	T Calculate	Sig*	
Entrepreneurial Orientation	0.638	0.407	67.816	4	0.000	Knowledge Acquisition	.060	1.094	.275
				395		Knowledge Storage	.080	.989	.323
				399		Knowledge Sharing	.059	.751	.453
						Knowledge Application	.867	8.859	.000

* impact is significant at level ($\alpha \leq 0.05$).

Table 5 Multiple Regression test to check the direct effect Entrepreneurial orientation and its variables (Innovativeness, Proactivity, and Risk-Taking) on the Organizational performance in pharmaceutical industry companies in Jordan.

Dependent Variable	(R)	(R ²)	F Calculate	DF	Sig*	B	T Calculate	Sig*	
Organizational performance	0.937	0.879	955.622	3	0.000	Innovativeness	.404	7.934	.000
				396		Proactivity	.587	8.950	.000
				399		Risk-Taking	.061	1.496	.135

* impact is significant at level ($\alpha \leq 0.05$).

of R-Squared and is the correlation between the observed and predicted values of dependent variable was (0.638). The coefficient of determination R² (0.407) consequently, about 40.7% of the variation in entrepreneurial orientation explained by knowledge management and its variables in pharmaceutical industry companies in Jordan. Restriction Parameter (F) was (67.816) of the entrepreneurial orientation in pharmaceutical industry companies in Jordan will be caused from for knowledge management specially (Knowledge Application).

Third Hypothesis (H₀₃). There is no impact of Entrepreneurial Orientation and its variables (Innovativeness, Proactivity, and Risk-Taking) on the Organizational performance and its variables (Performance of Employees, Commitment to quality standards) at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan.

To test this hypothesis, the researcher uses the multiple regression analysis. As shown in Table (5).

Table (3) explain that there is significant impact of Entrepreneurial orientation and its variables on the Organizational performance in pharmaceutical industry companies in Jordan. The significant value was (0.000) less than (0.05). The value of R is the square root of R-Squared and is the correlation between the observed and predicted values of dependent variable was (0.937). The coefficient of determination R² (0.879) therefore, about 87.9% of the variation in Organizational performance explained by Entrepreneurial

orientation and its variables in pharmaceutical industry companies in Jordan. Restriction Parameter (F) was (955.622) of the Organizational performance in pharmaceutical industry companies in Jordan will be caused from for Entrepreneurial orientation specially (Innovativeness and Proactivity).

Forth Hypothesis (H₀₄). There is no impact of knowledge management and its variables (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) on the Organizational performance and its variables (Performance of Employees, Commitment to quality standards) in the presence of Entrepreneurial Orientation as a mediating variable at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan

The model is built in AMOS and the graph is shown below, and estimates of the standardized parameters are shown in the graph. The boxes represent the observed variables and the circles for the error terms. AMOS refers to the correlation structure between the error conditions of the confirmatory factor analysis after fitting the prototype without any associated error conditions. This can improve the overall model synthesis.

The goodness-of-fit test statistics are displayed below. Please note the Chi-square test statistic is significant at 0.05, which suggest that the model fitting is only acceptable.

The Root Mean Square Error of Approximation (RMSEA) estimates lack of fit compared to the saturated model. (RMSEA) is 0.550, it indicates a good fit..

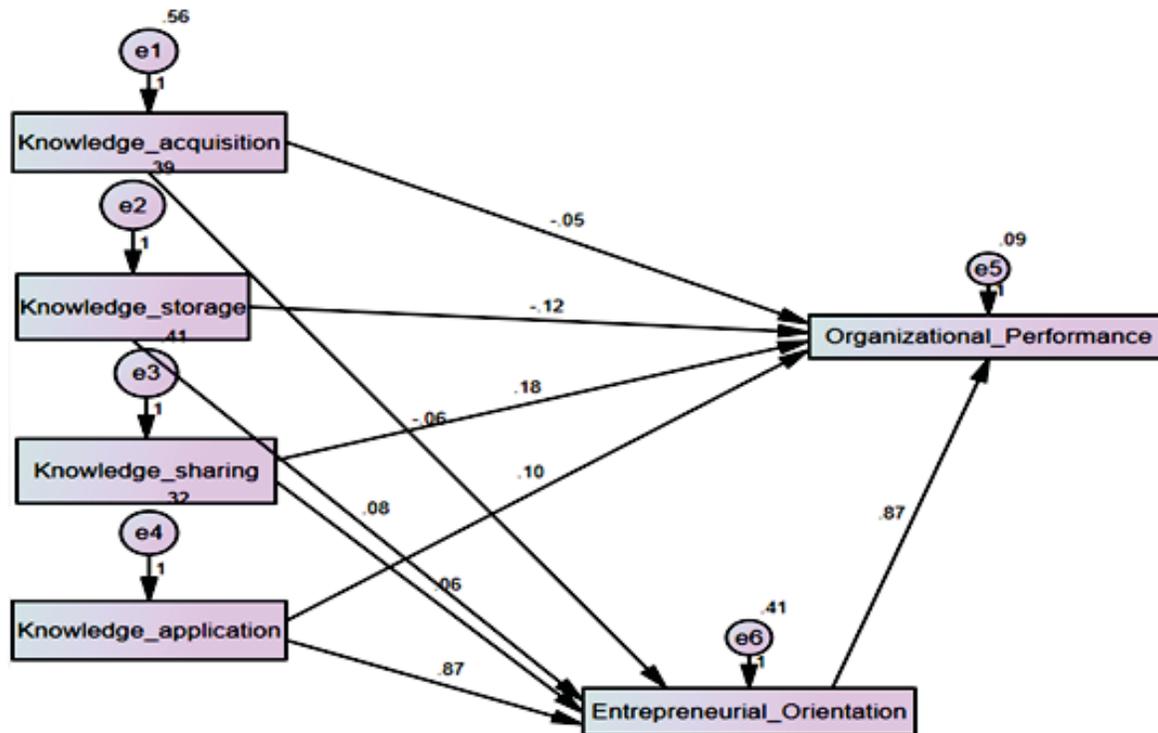


Figure 2 Structural equation model.

Table 6 Structural equation model to check the impact of knowledge management and its variables (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) on the Organizational performance and its variables (Performance of Employees, Commitment to quality standards) in the presence of Entrepreneurial Orientation as a mediating variable at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan.

hypothesis		Chi2	GFI	CFI	RMSEA
Impact of knowledge management and its variables (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) on the Organizational performance in the presence of Entrepreneurial Orientation as a mediating variable at ($\alpha \leq 0.05$) in the pharmaceutical industry companies in Jordan.		811.864	0.759	0.792	0.258

Independent Variable	Dependent Variable	Estimate	S.E.	C.R.	P (Sig)
Knowledge acquisition	→ Entrepreneurial Orientation	.060	.043	1.385	.166
Knowledge storage	→ Entrepreneurial Orientation	-.046	.020	-2.254	.024
Knowledge sharing	→ Entrepreneurial Orientation	.103	.034	3.017	.003
Knowledge application	→ Entrepreneurial Orientation	.867	.057	15.231	***
Entrepreneurial Orientation	→ Organizational performance	0.699	0.018	41.959	***
Knowledge acquisition	→ Organizational performance	.059	.050	1.165	.244
Knowledge storage	→ Organizational performance	.005	.023	.206	.837
Knowledge sharing	→ Organizational performance	.119	.025	4.841	***
Knowledge application	→ Organizational performance	.182	.024	7.584	***

GFI, the goodness of fit index, tells the model accounts for you what proportion of the variance in the sample variance covariance matrix. This should exceed (0.7) for a good model. For the saturated model, it will be a perfect 1. Goodness of Fit Index (GFI) (0.759) in this model. Which represent also strength of the model. (75.9%).

4. DISCUSSION

In this study, part of the industry sectors in Jordan was being examined to show how the impact of knowledge management processes on the internal organizational procedures. The first hypothesis evaluates the effect of knowledge management processes on

improving organizational performance, which showed a positive relationship with statistical significance. Based on R2 (0.424), the result shows that knowledge management is a key factor in improving job performance and standards. The result is compatible with the work of Koohang et al., (2017) and Abualoush et al., (2018). This result shows that knowledge management in all its aspects and operations works to raise the company's efficiency and improve its competitive capabilities by focusing on one of the main axes within it, which is the employees by supporting them and increasing their level of work, experience and proficiency. Also, the role of skill, creative thinking and innovation must be activated among employees in terms of the pharmaceutical industry and the marketing of these medicines in order to obtain better results and seize more opportunities. (Nwankpa et al., 2021).

The second hypothesis indicates that knowledge management positively affects the entrepreneurial orientation. This is supported because the value of t is (1.094). Based on the beta coefficient, there is a positive and statistically significant relationship between knowledge management and entrepreneurial orientation. This is consistent with the work of de Guimaraes et al. (2018) and Alshanty & Emeagwali (2019), who also found that knowledge management positively affects entrepreneurial orientation. The workers' possession of experience is one of the important reasons for development and prosperity. This happens because of training employees to keep up with developments and what is new in the world of knowledge management, as well as increasing their cultural and cognitive sources will contribute to providing the company and production with creative and modern ideas. (Iqbal, 2021) Thus, they will take advantage of good opportunities and raise the level of the company. The result is also in line with Weerakoon et al. (2020), who suggest that there is a direct relationship between the experience of employees and the high level of competitive advantage of the company by providing the market with distinctive products

The third hypothesis studies the impact of entrepreneurial orientation on the development of organizational performance. Which showed the existence of a statistically significant correlation between the entrepreneurial orientation and its dimensions on organizational performance in pharmaceutical companies in Jordan. This positive relationship was found by Chavez et al. (2017), Hoque (2018).

In addition, the integration of organizational performance and entrepreneurship improves the work of companies (Yousaf & Majid, 2018). One of the foundations of the success of companies is sensing the needs of customers and studying the feedback in order to achieve a competitive standard between companies in attracting customers through an entrepreneurial orientation. In addition, companies must follow up the internal organization in terms of employees and performance level, as well as the external organization that is based on customers and dealing with them. Employees also should be passionate because it is a motive for creativity and achievement and helps them to integrate within the company's environment and thus deal with customers within entrepreneurial-oriented behaviors.

The fourth hypothesis suggested that the entrepreneurial orientation mediates the relationship between knowledge management and organizational performance. Mediation analysis indicates a statistically significant mediation effect. The results showed that the entrepreneurial orientation positively mediates the relationship between knowledge management and organizational performance. Pharmaceutical companies can merge knowledge management with entrepreneurial orientation, which further will support the organized planning within the company. By having more knowledge, skill and experience to employees and supporting entrepreneurship will raise the efficiency of production and services, as well as the growth and improvement of employee performance, and all of this will give the company an advantage. (Latif et al., 2020). This result is consistent with those of Monteiro et al. (2019), Abubakar et al. (2019).

Implications of the study

First, the aim of the research is to present the effect of both entrepreneurial orientation and knowledge management on the organizational performance of pharmaceutical companies in Jordan. Although the concept of knowledge management (Wach et al., 2018; Abbas & Kumari, 2021) The four procedures in knowledge management which are (Knowledge acquisition, Knowledge storage, Knowledge sharing, Knowledge application) work together and significantly affect the organizational performance and work within the company, which will contribute to its development and distinction. Moreover, the current studies show that the entrepreneurial orientation is

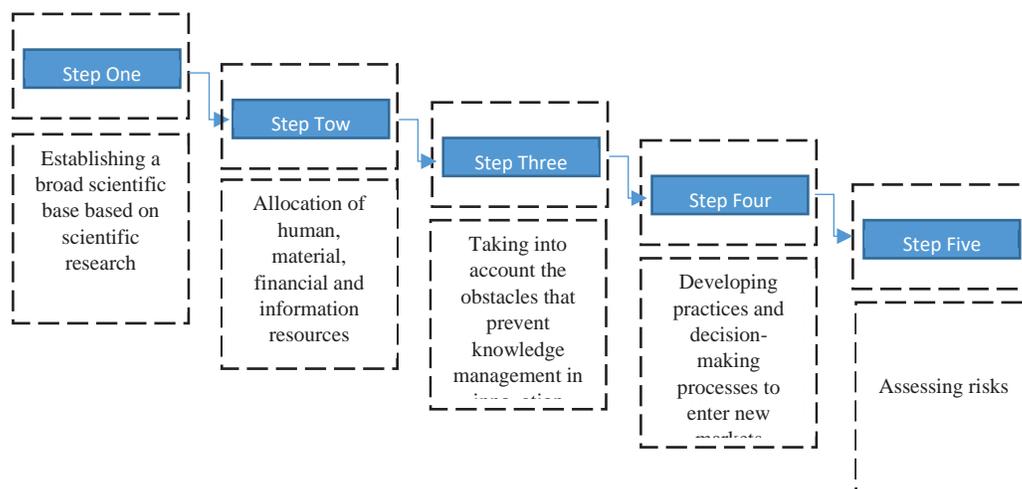


Figure 2 Proposed model of the moderating effect of entrepreneurial orientation on the impact of knowledge management processes on successful organizational performance.

one of the reasons for the success of organizational performance, as it enhances quality criteria and raises the productive capacity of employees. (Hussinki et al., 2017). In fact, the results indicate that the success of pharmaceutical companies is based on the amount of quantitative cognitive experience that employees possess and how it been applied. Second, the study criteria have been classified into two parts—commitment to quality standards, and employee performance—and an empirical impact assessment between the two perspectives—due to the complexity of the organizational performance of pharmaceutical companies. Thus, there is a direct link or relationship that depends on the high performance of the employees and in return also the increase in the quality standards to be achieved

All those working in the field of entrepreneurship and knowledge management are interested in this research as well as anyone else who can read it. Companies should keep up and continue to search for new ways and mechanisms for knowledge management (Raudeliuniene et al., 2020), to improve the organizational and functional performance (Sahibzada et al., 2020). To activate this model, we propose the following five steps as shown in Figure (2): 1. The first step: Establishing a broad scientific base based on scientific research that enables administrative and operational levels to acquire transfer and apply knowledge. 2. The second step: an appropriate allocation of human, material, financial and information resources, in the presence of an effective administration capable of clearly setting strategies for all. 3. The third step: taking into account the obstacles that

prevent knowledge management in innovation. 4. The fourth step: developing practices and decision-making processes to enter new markets, discovering opportunities available in the market, and adopting new ideas within the company. 5. Fifth step: assessing risks, taking into account the possibilities that arise from the interactions of the last steps.

5. CONCLUSION

Knowledge management is one of the ways to raise the level of job performance and support the entrepreneurial orientation of companies. There are many studies explain that knowledge management methods and processes support employees' experiences and skills, and thus affect the extent of their motivation. As a result, it can be said that the application of knowledge management processes in pharmaceutical companies will increase production capacity while raising the value of quality, gaining positive recommendation from customers as well strengthening the entrepreneurial orientation. By referring to the company's goal, customers, entrepreneurial orientation can modify and innovate according to the feedback obtained from them and thus gain more customers and profits. According to this research, Knowledge management aims to provide employees with the experience and skills necessary to be able to meet the needs of customers in a better and more distinctive way than other companies in the market. The enforcement of the entrepreneurial approach causes companies to innovate new businesses that ultimately will form the active elements.

REFERENCES

- Abbas, J., & Kumari, K. (2021). Examining the relationship between total quality management and knowledge management and their impact on organizational performance: a dimensional analysis. *Journal of Economic and Administrative Sciences*, 1026–4116. <https://doi.org/10.1108/JEAS-03-2021-0046>
- Abdi, K., Mardani, A., Senin, A. A., Tupenaite, L., Naimaviciene, J., Kanapeckiene, L., & Kutut, V. (2018). The effect of knowledge management, organizational culture and organizational learning on innovation in automotive industry. *Journal of business economics and management*, 19(1), 1–19. <https://doi.org/10.3846/jbem.2018.1477>
- Abualoush, S., Masa'deh, R. E., Bataineh, K., & Alrowwad, A. (2018). The role of knowledge management process and intellectual capital as intermediary variables between knowledge management infrastructure and organization performance. *Interdisciplinary Journal of Information, Knowledge, and Management*, 13, 279–309. <https://doi.org/10.28945/4088>
- Abubakar, A. M., Elrehail, H., Alatailat, M. A., & Elçi, A. (2019). Knowledge management, decision-making style and organizational performance. *Journal of Innovation & Knowledge*, 4(2), 104–114. <https://doi.org/10.1016/j.jik.2017.07.003>
- Al Khajeh, E. H. (2018). Impact of leadership styles on organizational performance. *Journal of Human Resources Management Research*, 2018, 1–10. <http://10.5171/2018.687849>
- Al Shraah, A., Abu-Rumman, A., Al Madi, F., Alhammad, F. A. F., & AlJboor, A. A. (2021). The impact of quality management practices on knowledge management processes: a study of a social security corporation in Jordan. *The TQM Journal*. <https://doi.org/10.1108/TQM-08-2020-0183>
- Al-Ahbabi, S., Singh, S. K., Gaur, S. S., & Balasubramanian, S. (2017). A knowledge management framework for enhancing public sector performance. *International Journal of Knowledge Management Studies*, 8(3–4), 329–350. <https://doi.org/10.1504/IJKMS.2017.087076>
- Alghail, A., Yao, L., Abbas, M., & Baashar, Y. (2021). Assessment of knowledge process capabilities toward project management maturity: an empirical study. *Journal of Knowledge Management*. <http://dx.doi.org/10.1108/JKM-03-2021-0180>
- Alghamdi, F. (2018). Total quality management and organizational performance: A possible role of organizational culture. *International Journal of Business Administration*, 9(4), 186–200. <http://10.5430/ijba.v9n4p186>
- Ali, B. J., & Anwar, G. (2021). A study of knowledge management alignment with production management: A study of carpet manufacture in Kurdistan region of Iraq. *Ali, BJ, & Anwar, G.(2021). A Study of Knowledge Management Alignment with Production Management: a Study of Carpet Manufacture in Kurdistan Region of Iraq. International Journal of English Literature and Social Sciences*, 6(2), 346–360. <https://dx.doi.org/10.22161/ijels.62.51>
- Allameh, S. M., & Zare, S. M. (2011). Examining the impact of KM enablers on knowledge management processes. *Procedia computer science*, 3, 1211–1223. <http://dx.doi.org/10.1016/j.procs.2010.12.196>
- Alshanty, A. M., & Emeagwali, O. L. (2019). Market-sensing capability, knowledge creation and innovation: The moderating role of entrepreneurial-orientation. *Journal of Innovation & Knowledge*, 4(3), 171–178. <https://doi.org/10.1016/j.jik.2019.02.002>
- Andrew, A. (2017). Employees' commitment and its impact on organizational performance. *Asian Journal of Economics, Business and Accounting*, 1–13. <https://doi.org/10.9734/AJEBA/2017/38396>
- Anwar, G., & Abdullah, N. N. (2021). The impact of Human resource management practice on Organizational performance. *International journal of Engineering, Business and Management (IJEEM)*, 5. <https://dx.doi.org/10.22161/ijeem.5.1.4>
- Anwar, K., & Ghafoor, C. (2017). Knowledge management and organizational performance: A study of private universities in Kurdistan. *International Journal of Social Sciences & Educational Studies*, 4(2), 53.
- Areed, S., Salloum, S. A., & Shaalan, K. (2021). The role of knowledge management processes for enhancing and supporting innovative organizations: a systematic review. *Recent Advances in Intelligent Systems and Smart Applications*, 143–161. https://doi.org/10.1007/978-3-030-47411-9_8
- Arzubiaga, U., Kotlar, J., De Massis, A., Maseda, A., & Iturralde, T. (2018). Entrepreneurial orientation and innovation in family SMEs: Unveiling the (actual) impact of the Board of Directors. *Journal of Business Venturing*, 33(4), 455–469. <https://doi.org/10.1016/j.jbusvent.2018.03.002>
- Barley, W. C., Treem, J. W., & Kuhn, T. (2018). Valuing multiple trajectories of knowledge:

- A critical review and agenda for knowledge management research. *Academy of Management Annals*, 12(1), 278–317. <https://doi.org/10.5465/annals.2016.0041>
- Bolisani, E., & Bratianu, C. (2017). *Emergent knowledge strategies: Strategic thinking in knowledge management* (Vol. 4). Springer.
- Chavez, R., Yu, W., Jacobs, M. A., & Feng, M. (2017). Manufacturing capability and organizational performance: The role of entrepreneurial orientation. *International Journal of Production Economics*, 184, 33–46. <https://doi.org/10.1016/j.ijpe.2016.10.028>
- Claver-Cortés, E., Zaragoza-Sáez, P., & Pertusa-Ortega, E. (2007). Organizational structure features supporting knowledge management processes. *Journal of Knowledge Management*. <http://dx.doi.org/10.1108/13673270710762701>
- Corrêa, V. S., Queiroz, M. M., & Shigaki, H. B. (2021). Social capital and individual entrepreneurial orientation: innovativeness, proactivity, and risk-taking in an emerging economy. *Benchmarking: An International Journal*. 28(7), 2280–2298. <https://doi.org/10.1108/BIJ-11-2020-0602>
- Daud, S., & Yusuf, W. (2008). An empirical study of knowledge management processes in Small and Medium Enterprises. *Communications of the IBIMA*, 4(22), 169–177.
- de Guimaraes, J. C. F., Severo, E. A., & de Vasconcelos, C. R. M. (2018). The influence of entrepreneurial, market, knowledge management orientations on cleaner production and the sustainable competitive advantage. *Journal of cleaner production*, 174, 1653–1663. <https://doi.org/10.1016/j.jclepro.2017.11.074>
- Durst, S., & Zieba, M. (2019). Mapping knowledge risks: towards a better understanding of knowledge management. *Knowledge Management Research & Practice*, 17(1), 1–13. <https://doi.org/10.1080/14778238.2018.1538603>
- Gacanin, H. (2019). Autonomous wireless systems with artificial intelligence: A knowledge management perspective. *IEEE Vehicular Technology Magazine*, 14(3), 51–59. <https://doi.org/10.1109/MVT.2019.2920162>
- Genc, E., Dayan, M., & Genc, O. F. (2019). The impact of SME internationalization on innovation: The mediating role of market and entrepreneurial orientation. *Industrial Marketing Management*, 82, 253–264. <https://doi.org/10.1016/j.indmarman.2019.01.008>
- George, B., Walker, R. M., & Monster, J. (2019). Does strategic planning improve organizational performance? A meta-analysis. *Public Administration Review*, 79(6), 810–819. <https://doi.org/10.1111/puar.13104>
- Gopinath, R. (2021). Job Involvement Influence to Knowledge Management—A Study.
- Hamza, P. A., Othman, B. J., Gardi, B., Sorguili, S., Aziz, H. M., Ahmed, S. A., ... & Anwar, G. (2021). Recruitment and Selection: The Relationship between Recruitment and Selection with Organizational Performance. *International Journal of Engineering, Business and Management*, 5(3), 1–13. <https://dx.doi.org/10.22161/ijebm.5.3.1>
- Hoque, A. S. M. M. (2018). The effect of entrepreneurial orientation on Bangladeshi SME performance: Role of organizational culture. *International Journal of Data and Network Science*, 2(1), 1–14. <https://doi.org/10.5267/j.ijdns.2018.7.001>
- Hussinki, H., Ritala, P., Vanhala, M., & Kianto, A. (2017). Intellectual capital, knowledge management practices and firm performance. *Journal of intellectual capital*. <https://doi.org/10.1108/JIC-11-2016-0116>
- Iqbal, A. (2021). Innovation speed and quality in higher education institutions: the role of knowledge management enablers and knowledge sharing process. *Journal of Knowledge Management*. <http://dx.doi.org/10.1108/JKM-07-2020-0546>
- Jiang, X., Liu, H., Fey, C., & Jiang, F. (2018). Entrepreneurial orientation, network resource acquisition, and firm performance: A network approach. *Journal of Business Research*, 87, 46–57. <https://doi.org/10.1016/j.jbusres.2018.02.021>
- Khalid, N., Islam, D. M. Z., & Ahmed, M. R. M. (2019). Sentrepreneurial Training and Organizational Performance: Implications for Future. *Humanities & Social Sciences Reviews*, 7(2), 590–593.
- Khan, S. H., Majid, A., Yasir, M., Javed, A., & Shah, H. A. (2021). The role of social capital in augmenting strategic renewal of SMEs: does entrepreneurial orientation and organizational flexibility really matter?. *World Journal of Entrepreneurship, Management and Sustainable Development*. 17(2), 227–245. <https://doi.org/10.1108/WJEMSD-04-2020-0029>
- Ključnikov, A., Civelek, M., Čech, P., & Kloudova, J. (2019). Entrepreneurial orientation of SMEs? executives in the comparative perspective for Czechia and Turkey. *Oeconomia Copernicana*, 10(4), 773–795. <https://doi.org/10.24136/oc.2019.035>
- Koohang, A., Paliszkievicz, J., & Goluchowski, J. (2017). The impact of leadership on

- trust, knowledge management, and organizational performance: A research model. *Industrial Management & Data Systems*. <https://doi.org/10.1108/IMDS-02-2016-0072>
- Latif, K. F., Afzal, O., Saqib, A., Sahibzada, U. F., & Alam, W. (2020). Direct and configurational paths of knowledge-oriented leadership, entrepreneurial orientation, and knowledge management processes to project success. *Journal of Intellectual Capital*, 22(1), 149–170. <https://doi.org/10.1108/JIC-09-2019-0228>
- McKenny, A. F., Short, J. C., Ketchen Jr, D. J., Payne, G. T., & Moss, T. W. (2018). Strategic entrepreneurial orientation: Configurations, performance, and the effects of industry and time. *Strategic Entrepreneurship Journal*, 12(4), 504–521. <https://doi.org/10.1002/sej.1291>
- Monteiro, A. P., Soares, A. M., & Rua, O. L. (2019). Linking intangible resources and entrepreneurial orientation to export performance: The mediating effect of dynamic capabilities. *Journal of Innovation & Knowledge*, 4(3), 179–187. <https://doi.org/10.1016/j.jik.2019.04.001>
- Monteiro, A. P., Soares, A. M., & Rua, O. L. (2019). Linking intangible resources and entrepreneurial orientation to export performance: The mediating effect of dynamic capabilities. *Journal of Innovation & Knowledge*, 4(3), 179–187. <https://doi.org/10.1016/j.jik.2019.04.001>
- Muthuveloo, R., Shanmugam, N., & Teoh, A. P. (2017). The impact of tacit knowledge management on organizational performance: Evidence from Malaysia. *Asia Pacific Management Review*, 22(4), 192–201. <https://doi.org/10.1016/j.apmr.2017.07.010>
- Nwankpa, J. K., Roumani, Y., & Datta, P. (2021). Process innovation in the digital age of business: the role of digital business intensity and knowledge management. *Journal of Knowledge Management*. <http://dx.doi.org/10.1108/JKM-04-2021-0277>
- Othman, B. J., Al-Kake, F., Diah, M. L. M., Othman, B., & Hasan, N. M. (2019). This study examines the antecedents and the effects of knowledge management and information technology in the manufacturing industry. *International Journal of Psychosocial Rehabilitation*, 23(02).
- Pang, K., & Lu, C. S. (2018). Organizational motivation, employee job satisfaction and organizational performance: An empirical study of container shipping companies in Taiwan. *Maritime Business Review*. <https://doi.org/10.1108/MABR-03-2018-0007>
- Raudeliuniene, J., Albats, E., & Kordab, M. (2020). Impact of information technologies and social networks on knowledge management processes in Middle Eastern audit and consulting companies. *Journal of Knowledge Management*, 25(4), 871–898. <http://dx.doi.org/10.1108/JKM-03-2020-0168>
- Sahibzada, U. F., Latif, K. F., Xu, Y., & Khalid, R. (2020). Catalyzing knowledge management processes towards knowledge worker satisfaction: fuzzy-set qualitative comparative analysis. *Journal of Knowledge Management*, 24(10), 2373–2400. <http://dx.doi.org/10.1108/JKM-02-2020-0093>
- Schmitz, S., Rebelo, T., Gracia, F. J., & Tomás, I. (2014). Learning culture and knowledge management processes: To what extent are they effectively related?. *Revista de Psicología del Trabajo y de las Organizaciones*, 30(3), 113–121. <http://dx.doi.org/10.1016/j.rpto.2014.11.003>
- Schneider, B., Yost, A. B., Kropp, A., Kind, C., & Lam, H. (2018). Workforce engagement: What it is, what drives it, and why it matters for organizational performance. *Journal of Organizational Behavior*, 39(4), 462–480. <https://doi.org/10.1002/job.2244>
- Serrat, O. (2017). *Knowledge solutions: Tools, methods, and approaches to drive organizational performance* (p. 1140). Springer Nature.
- Shanker, R., Bhanugopan, R., Van der Heijden, B. I., & Farrell, M. (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of vocational behavior*, 100, 67–77. <http://dx.doi.org/10.1016/j.jvb.2017.02.004>
- Tajeddini, K., Martin, E., & Ali, A. (2020). Enhancing hospitality business performance: The role of entrepreneurial orientation and networking ties in a dynamic environment. *International Journal of Hospitality Management*, 90, 102605. <https://dx.doi.org/10.1016%2Fj.ijhm.2020.102605>
- Wach, K., Głodowska, A., & Maciejewski, M. (2018). Entrepreneurial orientation, knowledge utilization and internationalization of firms. *Sustainability*, 10(12), 4711. <http://dx.doi.org/10.3390/su10124711>
- Wales, W. J., Covin, J. G., & Monsen, E. (2020). Entrepreneurial orientation: The necessity of a multilevel conceptualization. *Strategic Entrepreneurship Journal*, 14(4), 639–660. <https://doi.org/10.1002/sej.1344>
- Wales, W., Gupta, V. K., Marino, L., & Shirokova, G. (2019). Entrepreneurial orientation: International, global and cross cultural

- research. *International Small Business Journal*, 37(2), 95–104. <https://doi.org/10.1177/0266242618813423>
- Wanasida, A. S., Bernarto, I., Sudibjo, N., & Pramono, R. (2021). Millennial transformational leadership on organizational performance in Indonesia fishery startup. *The Journal of Asian Finance, Economics, and Business*, 8(2), 555–562. <https://doi.org/10.13106/jafeb.2021.vol8.no2.0555>
- Webb, S. P. (2017). *Knowledge management: Linchpin of change*. Routledge. <https://doi.org/10.4324/9781351227223>
- Wee, J. C., & Chua, A. Y. (2013). The peculiarities of knowledge management processes in SMEs: the case of Singapore. *Journal of knowledge management*. <https://dr.ntu.edu.sg/bitstream/10356/144782/2/The%20peculiarities%20of%20knowledge%20management%20processes%20in%20SMEs%20The%20case%20of%20Singapore.pdf>
- Weerakoon, C., McMurray, A. J., Rametse, N., & Arenius, P. (2020). Knowledge creation theory of entrepreneurial orientation in social enterprises. *Journal of Small Business Management*, 58(4), 834–870. <https://doi.org/10.1080/00472778.2019.1672709>
- Yousaf, Z., & Majid, A. (2018). Organizational network and strategic business performance: does organizational flexibility and entrepreneurial orientation really matter?. *Journal of Organizational Change Management*. <https://doi.org/10.1108/JOCM-12-2016-0298>
- Yusr, M. M., Mokhtar, S. S. M., Othman, A. R., & Sulaiman, Y. (2017). Does interaction between TQM practices and knowledge management processes enhance the innovation performance?. *International Journal of Quality & Reliability Management*. <http://dx.doi.org/10.5171/2010.826105>
- Zaim, H., Muhammed, S., & Tarim, M. (2019). Relationship between knowledge management processes and performance: Critical role of knowledge utilization in organizations. *Knowledge Management Research & Practice*, 17(1), 24–38. <http://www.tandfonline.com/action/showCitFormats?doi=10.1080/14778238.2018.1538669>
- Zhai, Y. M., Sun, W. Q., Tsai, S. B., Wang, Z., Zhao, Y., & Chen, Q. (2018). An empirical study on entrepreneurial orientation, absorptive capacity, and SMEs' innovation performance: A sustainable perspective. *Sustainability*, 10(2), 314. <https://doi.org/10.3390/su10020314>
- Zhang, X., & Venkatesh, V. (2017). A nomological network of knowledge management system use: Antecedents and consequences. *MIS quarterly*, 41(4), 1275–1306. <https://doi.org/10.25300/MISQ/2017/41.4.12>
- Mbaidin, H. O. (2021). The Impact of ICT Critical Success Factors in Strategic planning: an Applied Study in Jordanian Government Agencies. *Indian Journal of Economics and Business*, 20(2), 281–298. <https://doi.org/10.5281/zenodo.5409342>