Uncertain Supply Chain Management 12 (2024) 9-18

Contents lists available at GrowingScience

# Uncertain Supply Chain Management

homepage: www.GrowingScience.com/uscm

# Entrepreneurial orientation and digital transformation as drivers of high organizational performance: Evidence from Iraqi private banks

## Ahmad Ali Salih<sup>a</sup>, Lamya Alsalhi<sup>a</sup> and Azzam Abou-Moghli<sup>a\*</sup>

#### <sup>a</sup>Department of Business, Middle East University, Amman, Jordan

# ABSTRACT Article history:

Article history: Received May 20, 2023	This research investigated how digital transformation affects the relationship between entrepreneurial orientation and organizational performance among private banks in Baghdad, Iraq.
Received in revised format July 29, 2023 Accepted October 31, 2023 Available online October 31 2023	The study population consisted of 5,000 individuals holding various positions, including general manager, deputy general manager, department head, section head, and employee. To obtain a representative sample, the researchers employed the stratified equal random sampling method and randomly selected participants. As a result, a total of 406 questionnaires were distributed. However,
Keywords: Entrepreneurial Orientation Organizational Performance Digital Transformation Private Banks Iraq	only 197 questionnaires were valid and suitable for analysis, representing a percentage of 49% of the distributed questionnaires. The primary means of gathering information was through a questionnaire, and the data obtained were analyzed using inferential statistical techniques. The research findings indicated that the different aspects of entrepreneurial orientation, such as being proactive, taking risks, and flexibility, had a significant and beneficial influence on the organization's overall performance and its ability to operate effectively and engage socially. Nonetheless, the innovation aspect did not have a notable impact on the performance of the organization and its related dimensions. In addition, the research indicated that digitalization has a beneficial impact on the relationship between entrepreneurial orientation and the performance of an organization, making it more powerful. The research suggested that private banks operating in Baghdad province ought to promote innovation, foster productive social interactions, enhance their operational efficiency, facilitate digital transformation, and leverage their moderating influence to
	improve the performance of the organization by boosting entrepreneurial orientation.

© 2024 by the authors; licensee Growing Science, Canada.

#### 1. Introduction

A critical factor in ensuring banks' survival, growth, and excellence in organizational performance, particularly in the face of intense competition and persistent crises experienced by the entire world, including Iraq. As a result, it is important to continue monitoring and improving their performance. Banks are well-known for their significant impact on the national economy. A well-established and efficient banking system can significantly influence economic activities by facilitating the movement of goods and services, expediting payment transactions, and enhancing the speed of capital circulation. This, in turn, contributes to promoting economic growth (Nguyen 2022). Thus, the emphasis on bank organizational performance involves achieving customer satisfaction and fostering employee commitment (Delima, 2017). As a result, the matter of studying and developing organizational performance has become crucial. Entrepreneurial orientation is considered one of the most important drivers of organizational performance development. It represents a strategy that enables organizations to identify promising new opportunities and distinguished investment areas and how to deal with them to achieve desired results, improve, and develop organizational performance. (Arshad et al., 2020) and (Zaid & Alsuhaiby, 2018) believe that entrepreneurial orientation affects organizational performance in the banking environment by motivating employees to provide high-quality services that affect customer perception and satisfaction, serving the goals of the banking organization.

\* Corresponding author

ISSN 2291-6830 (Online) - ISSN 2291-6822 (Print) © 2024 by the authors; licensee Growing Science, Canada doi: 10.5267/j.uscm.2023.10.022

E-mail address aaboumoghli@gmail.com (A. Abou-Moghli)

Our grasp of the digital transformation based on information technology, particularly the digital forms produced by ecommerce and other internet-related technologies, continues to be quite limited despite the recent growth in research interests. (Besson & Rowe, 2012). The fast growth and abundance of information have resulted in challenges for banks to manage and leverage the various applications that have become prevalent across all aspects of their operations, affecting their overall performance (Marei, 2023; Ibrahim & Elhadad, 2018). The results of the (Kim, 2020) study supported the previous conclusion as it found that using digital applications in banks has enabled customers to easily and conveniently conduct their transactions without needing to visit bank branches. Digital transformation is no longer a choice but a requirement for the banking industry, as it facilitates the integration of banking services with other public and private sectors. This integration results in significant cost and time savings and improved overall performance of the organization (First International Conference on Information Technology and Business, 2020). (Jonsson et al., 2020) found that digitization is a factor that positively affects performance in providing banking services through digital platforms that enable bankers to perform their tasks efficiently.

According to research conducted by (Saleh & Rajappa, 2020); and (Purba, 2015), contented that there is a correlation between entrepreneurial orientation, entrepreneurial process, and digital transformation. These studies found that entrepreneurial orientations such as risk-taking, innovative thinking, and bold ideas could lead to an increased focus on digital transformation. In a study that covered 29 European nations, Galindo-Martín et al. (2018) found a strong link between entrepreneurship and digital transformation. This led the current study to explore how the digital revolution has affected the link between entrepreneurial orientation and organizational performance in Baghdad, Iraq's private banks.

## 1.1. Literature Review

## 1.1.1. Entrepreneurial Orientation

An entrepreneurial mindset is a driving element behind organizational activities (Purnomo, 2019). (Nazar et al., 2018) defines it as the organization's inclination towards accepting various actions and making decisions towards entrepreneurial orientation. Entrepreneurial orientation is a direction to enhance survival and continuity (Marei et al., 2023; Feng et al., 2020). It is a source of competitive advantage (Mishra, 2017) and supports creative organizations to compete and obtain higher returns (Purnomo, 2019). (Rehman et al., 2019) believes that entrepreneurial orientation is one of the strategic orientations for developing and innovating new services and creating new behavior to guide the customer to gain a competitive advantage.

Organizations with an entrepreneurial orientation are characterized by creativity, risk-taking, and proactivity. This describes the strategic approach taken by owners and managers of organizations with an entrepreneurial orientation characterized by a high level of risk-taking, foresight, and a focus on developing and delivering specific products (Saleh, 2007). From the above, it is evident that the influence of entrepreneurial orientation on organizational activity enhances the organization's chances of surviving and growing, allowing it to present new opportunities and accelerate the investment process, giving it a source of competitive edge and high performance. The current study adopted four dimensions of entrepreneurial orientation: innovation, proactivity, risk-taking, and flexibility. These dimensions were chosen based on their adoption in most recent studies, especially by (Cho & Lee, 2018); (Panigrahi et al., 2020); (Alubadi, 2020), and (Sharif & Aref, 2021), which have high reliability and validity, in addition to being nominated by the banks studied for analysis.

# 1.1.2. Organizational Performance

According to Cho and Lee (2018), organizational performance is how well an organization performs in relation to its goals and objectives. A bank's survival depends on its organizational performance, which is considered critical for achieving positive outcomes in various areas such as savings, credit, marketing, operations management, international business, strategies, and information systems. In other words, organizational performance refers to a range of financial and non-financial measures that assess the extent to which a bank has accomplished its goals and objectives. Hanna et al. (2015) confirmed that there is a relationship between information quality and the elements achieved through this information related to the degree of consistency and compatibility with the user over the internet. According to Argyropoulou et al. (2015), there is a correlation between information quality and the financial performance of organizations. This correlation is determined using performance indicators derived from bank-published data or data from stock exchanges.

The entire success of an organization can also be assessed based on the private data gathered from managers or other key informants who are asked to assess their bank's market share and profitability. High-quality data and information are essential for effective managerial decisions, especially when such decisions have long-term consequences. Ensuring the accuracy and relevance of the information obtained is reflected in achieving organizational performance and decision-making effectiveness (Al-Nawafleh et al., 2019; Mansour et al., 2023).

Performance of the organization, as previously mentioned, refers to the actual outputs or results of the organization as measured against its intended outputs, which are a set of financial and non-financial indicators that can determine the extent to which organizational goals have been attained. These indicators include financial performance, stock market performance, internal processes, and accomplishing organizational goals. The current study examines organizational performance through the effectiveness of internal processes in their dimensions (operational process effectiveness and social interaction process

# 1.1.3. Digital Transformation

Digital business transformation involves utilizing technology to develop innovative business models, processes, software, and systems, leading to increased profitability, enhanced competitive advantage, improved efficiency, and the ability to generate novel products and services while optimizing business operations (Schwertner, 2017). While process transformation focuses on specific aspects of banking operations, like loan instalment claims or account balance inquiries, some banks use digital technologies to modify the model of traditional business. It aims to address the underlying building blocks of how value is provided in the financial services sector (Westerman et al., 2014). The significance of digital transformation lies in its capacity to contribute to problem-solving, activate development, and enhance sustainability. Technology comes to be a helpful and motivating factor alongside the development of new revenue sources and payment infrastructure, including storage and value transfer (Huebner et al., 2019). This enables the emergence of a transformation in the trust structure in this area as virtual currency becomes a means of payment. As a result, banks should enhance their security measures and implement suitable safeguards to uphold the safety and confidentiality of their most valuable assets (Zahoor et al, 2016).

Banks also offer digital banking services by creating digital bank platforms. Where, the integration of technologies such as artificial intelligence, robotic process automation, blockchain, and the internet of things is driving the ongoing digital transformation in the financial sector; leading to enhanced client personalization, improved customer experience, streamlined banking processes, and fundamental changes in the functioning of the banking industry (Vijayashree, 2022). Banks follow digital technologies to transform model old-style business while process transformation emphasizes specific parts of banking operations. The main alterations in the digital transformation that witness a profound transformation in the banking system include digitization providing new opportunities for banks to put the customer at the heart of the development process. It seems that new technologies in the market are disrupting the value chain of retail financial services. The banking industry is undergoing digital transformation, which refers to the integration of technology into its operations. However, it is important to note that technology alone will not be the sole factor disrupting the industry. Banks' decisions today will significantly impact their future continuity and ability to compete in the market (Omarini, 2018).

As was already noted, it is obvious how crucial transformation to digital is to enhancing bank efficiency and achieving financial stability. Transformation to digital has become essential for financial institutions looking to enhance and improve their banking services and make it easier for beneficiaries to access resources. Digital transformation has become an essential requirement for achieving high performance.

# 2. Hypothesis

The following Hypotheses are being tested in this study:

**Hypothesis 1:** There is no statistically significant impact of entrepreneurial orientation dimensions (innovation, proactiveness, risk-taking, and flexibility) on organizational performance dimensions (operational efficiency and social interaction effectiveness) in private banks in Baghdad province at a significance level ( $\alpha \le 0.0.5$ ).

**Hypothesis 2:** The digital transformation does not moderate the effect of entrepreneurial orientation with its dimensions (innovation, proactiveness, risk-taking, and flexibility) on organizational performance with its dimensions (operational process efficiency and social interaction process efficiency) in private banks in Baghdad province, with a significance level set at ( $\alpha \le 0.0.5$ ).

#### Methodology

The current study is a quantitative causal study conducted using the descriptive-analytical approach. This approach is based on studying practical problems in real-life conditions to reach logical results that allow the study for scientific analysis and inference and then provide realistic recommendations.

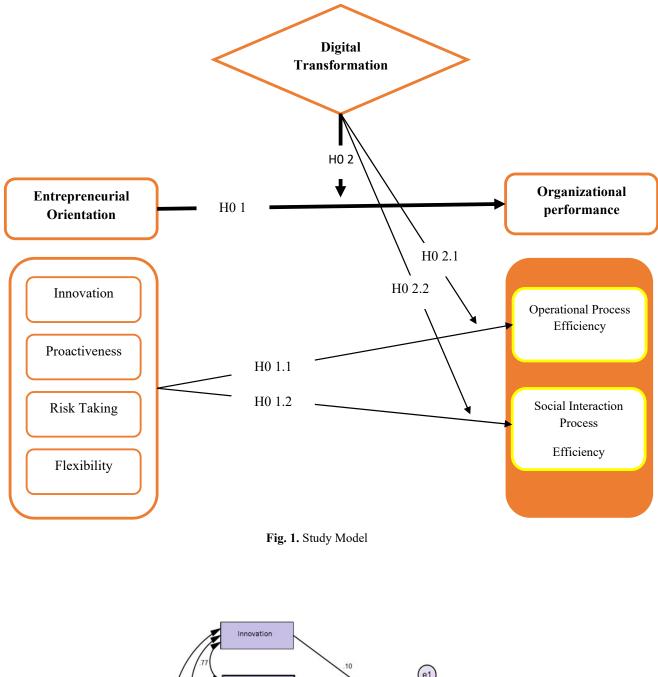
#### 2.1. Population

The research focused on private banks located in Baghdad, Iraq, which are regulated by the Central Bank of Iraq. The country has a total of 91 private banks, and the study population consisted of 5,497 employees according to the data from (Central Bank of Iraq, 2020, p. 120) The study successfully reached out to 29 of these banks.

#### 2.2. Sample

Due to the difficulty in accessing all members of the study population, a stratified random sampling method was used by dividing the banks into 29 strata and jobs into five strata, with a sample size of 381, which represents the population properly and ensures the generalization of the results (Sekaran & Bougie, 2016). The sample included employees in the positions of general manager, deputy general manager, department head, section head, and employee. Fourteen questionnaires were randomly distributed to each bank, with a total of 406 questionnaires distributed, which is larger than the required number to

ensure the retrieval of a sufficient number of questionnaires for statistical analysis. The number of valid returned questionnaires was 217, which represents a rate of 53%.



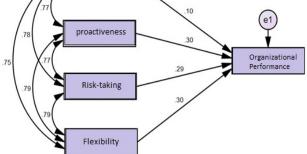


Fig. 2. Structural Equation Modeling (SEM) for the first hypothesis

#### 2.3. Hypothesis Testing

**Hypothesis 1:** There is no statistically significant effect at the ( $\alpha \le 0.05$ ) level of entrepreneurial orientation, including its dimensions of innovation, proactiveness, risk-taking, and flexibility, on organizational performance, including its dimensions of (operational process effectiveness and social interaction effectiveness), in private banks in the Baghdad governorate.

The first hypothesis was tested in two steps using the AMOS software and Structural Equation Model (SEM). The first step was to show the effect of each dimension of entrepreneurial orientation on the organization's performance, while the second step was to demonstrate the effect of entrepreneurial orientation on the organization's performance collectively.

**Legends:** The model aims to demonstrate the effect of each dimension of entrepreneurial orientation on the performance of the organization in its dimensions (effectiveness of operational processes and effectiveness of social interaction processes).

#### Table 1

Results of the first hypothesis: Analyzing the effect of entrepreneurial orientation on the performance of the organizationsIndependents VariablesEffect DirectionDependent Variables $\beta$ TSig $R^2$ 

F			P	-		
Entrepreneurial Orientation	$\rightarrow$	Performance	0.84	29.13	0.001	0.77
Innovation	$\rightarrow$	Performance	0.10	1.800	0.072	
Proactiveness	$\rightarrow$	Performance	0.30	5.413	0.001	
Risk-taking	$\rightarrow$	Performance	0.29	5.067	0.001	
Flexibility	$\rightarrow$	Performance	0.30	5.219	0.001	

As the model indicates a statistically significant effect of entrepreneurial orientation on performance organizations at a significance level of 0.001 as shown in Table 1, where the impact coefficient  $\beta$  reached 0.84, and the value of t confirmed this effect, which amounted to 29.13. The determination coefficient reached a value of R2=0.77, meaning that the variance in entrepreneurial orientation was able to explain 77% of the variance that occurred in the performance of the organization, while the remaining can be attributed to other external factors.

After testing the effect of entrepreneurial orientation on the performance of the organization, a statistically significant effect was found with a value of (0.001), given that the acceptable level of significance is (0.05). The effect of each dimension of entrepreneurial orientation on the performance of the organization is shown as follows:

It was revealed that the model indicates a lack of statistically significant effect of the dimension of innovation on the performance of the organization, with a significance level of (0.072) and an effective degree of  $\beta$  (0.10). The value of (t) confirmed the insignificance of this effect, which was (1.800). The determination coefficient value (R2=0.77) indicates that the variation in the innovation dimension was able to explain (77%) of the variation that occurred in the performance of the organization, while the rest can be attributed to other external factors.

It was found that there is a statistically significant effect of the dimension of proactivity on the performance of the organization, with a significance level of (0.001) and an effective degree of  $\beta$  (0.30). The value of (t) confirmed the significance of this effect, which was (5.413). The determination coefficient value (R2=0.77) indicates that the variation in the proactivity dimension was able to explain (77%) of the variation that occurred in the performance of the organization, while the rest can be attributed to other external factors.

It was revealed that there is a statistically significant effect of the dimension of risk acceptance on the performance of the organization, with a significance level of (0.001) and an effective degree of  $\beta$  (0.29). The value of (t) confirmed the significance of this effect, which was (5.067). The determination coefficient value (R2=0.77) indicates that the variation in the risk acceptance dimension was able to explain (77%) of the variation that occurred in the performance of the organization, while the rest can be attributed to other external factors.

It was found that there is a statistically significant effect of the dimension of flexibility on the performance of the organization at a significance level of (0.001), where the effect coefficient  $\beta$  was (0.30), and the value of (t) confirmed the significance of this effect at (5.219). The determination coefficient value was (R2=0.77), which means that the variance in the dimension of flexibility was able to explain (77%) of the variance that occurred in the performance organization, while the rest can be attributed to other external factors.

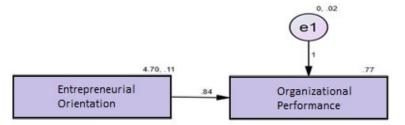


Fig. 3. Represents the test of the Structural Equation Model (SEM) for the first hypothesis

These findings provide credence to the alternative hypothesis, partially, that there is a significant effect of entrepreneurial orientation with its dimensions (proactivity, risk-taking, and flexibility) on the performance of the organization with its dimensions (operational efficiency, social interaction efficiency) in private banks in Baghdad province at a significance level of ( $\alpha \ge 0.05$ ). As for the dimension of innovation, it was revealed to have no significant effect on the performance of the organization.

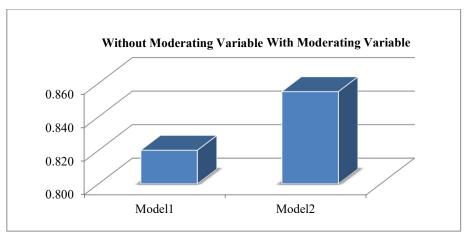
**Hypothesis 2:** The digital transformation does not modify the effect of entrepreneurial orientation dimensions (creativity, proactivity, risk-taking, flexibility) on organizational performance dimensions: (effectiveness of operational processes, effectiveness of social interaction processes) in private banks in Baghdad province at a significance level ( $\alpha \le 0.05$ )

The analysis of multiple hierarchical regression tool was applied to determine the effect of digital transformation on modifying the effect of entrepreneurial orientation dimensions (creativity, proactiveness, risk-taking, and flexibility) on the performance of the organization dimensions (operational process effectiveness and social interaction process effectiveness) in private banks in Baghdad province at a significance level of ( $\alpha \leq 0.05$ ).

## Table 2

Multilevel hierarchical regression tool to exhibit the effect of digital transformation in modifying the effect of entrepreneurial orientation dimensions on performance organizations

Independent Variables/Dimension	Model 1			Model 2			Dependent variable
	β	t	Sig t	β	t	T Sig	_
Entrepreneurial Orientation	0.992	5.358	0.000	0.477	2.671	0.008	
Innovation	0.658	17.343	0.000	0.043	1.041	0.299	
Proactiveness	0.471	10.183	0.000	0.119	2.671	0.008	
Risk-taking	0.340	6.916	0.000	0.201	4.546	0.000	
Flexibility	0.256	5.1666	0.000	0.126	2.659	0.009	Organizational
Digital Transformation				0.402	7.315	0.000	Performance
$\mathbb{R}^2$	0.820			0.855			
$\Delta R^2$	0.820			0.035			
ΔF	218.155			53.512			
Sig ΔF	0.000			0.000			



**Fig. 4.** The value of R<sup>2</sup> before and after the modified digital transformation variable enters the effect of entrepreneurial orientation on the performance of the organizations

The findings of the multiple hierarchical regression tool applied in two stages as shown in Table 2. The first stage indicates that there is an effect of the independent variable, entrepreneurial orientation, and its dimensions (creativity, proactiveness, risk-taking, and flexibility) on the dependent variable, organizational performance, with an F-value of 218.155 and a statistical significance of 0.000 that is less than the acceptable statistical significance level (0.05). The determination coefficient (R2=0.820) also reached a high value, indicating that the variable of entrepreneurial orientation and its dimensions (creativity, proactiveness, risk-taking, and flexibility) explained 82% of the variance in organizational performance, while the remaining variance is attributed to other factors.

In the second stage, the mediator variable (digital transformation) was introduced to the regression model, and it was found that the determination coefficient value increased by 3.5% when the digital transformation was included, which was a statistically significant increase ( $\Delta F = 53.512$ ) at a significance level of 0.000, which is less than the acceptable statistical significance level of 0.05. The influence degree ( $\beta = 0.402$ ) of the digital transformation variable was also significant, with a value of t= 7.315 and a significance level (Sig=0.000), indicating that the digital transformation variable has a positive effect on improving and modifying the impact of the entrepreneurial orientation dimensions (proactiveness, risk-taking, and flexibility) on the performance of the organization. The improvement rate in explaining the total variance increased by 3.5%, from 82% to 85.5%. However, it was revealed that the creativity dimension was not statistically significant.

Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted, which states that the digital transformation moderates the effect of entrepreneurial orientation and its dimensions (creativity, proactivity, risk-taking, and flexibility) on the performance of the organization and its dimensions (operational efficiency, social interaction effectiveness) in private banks in Baghdad province at a significance level of ( $\alpha \ge 0.05$ ).

## 3. Results Discussion

After analyzing the data obtained from the sample responses and processing it statistically, a set of results can be discussed as follows:

#### 3.1. Firstly: A discussion of the results of the first hypothesis

The results related to the first hypothesis showed that there is no statistically significant effect of entrepreneurial orientation dimensions (creativity, proactiveness, risk-taking, and flexibility) on the performance of the organization dimensions (operational process efficiency and social interaction process efficiency) in private banks in Baghdad province at a significance level of ( $\alpha \le 0.05$ ). The determination coefficient was 0.77, and the regression values were high for all dimensions. The results also showed that proactiveness and flexibility, as dimensions of entrepreneurial orientation, had the utmost influence on performance organizations. Risk-taking is next, and then creativity.

The study explains that entrepreneurial orientation, with its dimensions, is crucial for achieving the organization's goals, which the banks rely on to create investment opportunities and enhance their decision-making effectiveness. It also supports activities that are the foundation of their development, growth, and effectiveness. Managers with entrepreneurial orientation are more successful in sustaining their organizations and play a significant role in customer satisfaction.

The first hypothesis findings presented that entrepreneurial orientation has a statistically significant impact on the performance of the organizations with a value of (0.001), while the accepted level of significance is (0.05). The effect of each dimension of entrepreneurial orientation on organizational performance was also demonstrated as follows:

The model indicates that there is no statistically significant effect of innovation dimension on the performance of the organizations at a significance level of (0.072), with a corresponding effect degree of  $\beta$  (0.10). The (t) value confirms the insignificance of this effect, which was (1.800). The determination coefficient (R2) was (0.77), meaning that the variation in innovation dimension was able to explain (77%) of the variance that occurred in organizational performance, and the remaining variance is attributed to other external factors.

On the other hand, a statistically significant effect was revealed of the proactivity dimension on the performance of the organizations at a significant level of (0.001), with a corresponding effect degree of  $\beta$  (0.30). The (t) value confirmed the significance of this effect, which was (5.413). The determination coefficient (R2) was also (0.77), indicating that the variation in the proactivity dimension explained (77%) of the variance that occurred in organizational performance, and the remaining variance is attributed to other external factors.

The statistical analysis showed a significant effect of the risk acceptance dimension on organizational performance, with a significant level of 0.001. The effect size was  $\beta$  (0.29), and the t-value confirmed the significance of this effect (5.067). The coefficient of determination (R2=0.77) indicated that the variability in the risk acceptance dimension explained 77% of the variability in organizational performance, while the remaining factors were attributed to external factors.

Similarly, a significant effect of the flexibility dimension was shown on the performance of the organizations, with a significance level of 0.001. The effect size was  $\beta$  (0.30), and the t-value confirmed the significance of this effect (5.219). The

coefficient of determination ( $R^2$ =0.77) indicated that the variability in the flexibility dimension explained 77% of the variability in organizational performance, while the remaining factors were attributed to external factors.

#### 3.2. Secondly: A discussion of the results of the second hypothesis

The results related to the second hypothesis showed that digital transformation does not moderate the effect of entrepreneurial orientation dimensions (creativity, proactiveness, risk-taking, flexibility) on the performance of the organization dimensions (operational process effectiveness, social interaction process effectiveness) in private banks in Baghdad province at a significance level of ( $\alpha \le 0.05$ ). The change in the explanatory power value was ( $0.039=\Delta R^2$ ), indicating that the moderating variable (digital transformation) explains only (03.9%) of the variance in the dependent variable (organizational performance). In contrast, the independent variable (entrepreneurial orientation) significantly affects the dependent variable more. The study explains this result in terms of improving communication techniques and reducing data storage costs, which leads to the development of data analysis methods and increasing awareness to achieve a sufficient picture of data quality, which becomes important in banks and achieves a greater possibility of understanding customer needs, satisfying their requirements, and continuous improvement in information quality.

## 4. Conclusions

The conclusions have indicated that the topic of entrepreneurial orientation is vital and has significant future effects on performance, as it stimulates creativity, proactivity, risk-taking, and flexibility. It has also become evident that digital transformation is one of the most important topics, especially at present, due to the smart applications it provides, which contribute to increased creativity and meeting needs quickly and at a low cost. The results indicate that at a significance level of 0.05, there is no statistically significant relationship between the entrepreneurial orientation aspects of innovation, proactiveness, risk-taking, and flexibility and the performance of private banks in the Baghdad province. All of the variables had high values, according to the regression analysis, with proactiveness and flexibility having the biggest effects on organizational performance, followed by risk-taking and innovation. The observed impacts, however, did not reach the threshold for significance, indicating that other external factors may have an impact on the correlations between organizational performance and aspects of entrepreneurial orientation. The study highlighted that the practice of entrepreneurial orientation in private banks in Baghdad province was high, indicating that the researched banks practice entrepreneurial orientation behaviors and are interested in it. It also became clear that the practice of innovation within the entrepreneurial orientation variable was the only one of moderate degree, indicating that the researched banks still suffer from limited practices in supporting new ideas and attracting talent, and they need to adopt such practices. Moreover, the practice of the performance of the organization in the researched banks was moderate, indicating that there are gaps in the effectiveness of operational processes and social interaction processes that are still practiced at a moderate or weak level, especially in the field of social interaction, and banks should focus on this aspect.

Additionally, A significance level of 0.05 was used to determine the results, and they show that the impact of entrepreneurial orientation on the performance of private banks in the Baghdad province is not moderated by digital transformation. While the independent variable, entrepreneurial attitude, showed a more substantial impact, it was discovered that the moderating variable, digital transformation, had a limited ability to explain (3.9 percent) the variance in organizational performance. The practice of digital transformation applications in the researched banks was below the desired level, and it was moderate. The reason for this is that the practice of some applications was limited, especially in data privacy protection and cloud computing. The researched banks need to pay attention to these gaps and try to activate them. The study also confirmed that digital transformation contributed to modifying the influence of entrepreneurial orientation on the performance of the organizations in the concerned banks. This indicates that digital transformation increases the effectiveness of the effects on the performance of the organizations, contributing to increasing the level of performance, especially in customer service and providing services to them, maintaining their data privacy, and activating the relationship with the community and the environment.

#### 5. Recommendations

The current study recommends encouraging innovative practices in the banks being studied through: Increasing material and moral support for new ideas. Implementing continuous learning programs and considering them as one of the most important pillars of the organizational culture of the bank. Focusing on attracting talented individuals by putting in place mechanisms to search for and attract them. Activating effective social interaction practices by expanding the participation of stakeholders in all bank events and activities, respecting their opinions and proposals, and benefiting from their experiences. Classifying all stakeholders according to their impact on the bank's activities and operations to develop proper coordination mechanisms with them and sustain their support. Increasing the attention paid to documenting customer complaints and finding solutions quickly, adopting them as an indicator of performance quality. Increasing activities related to environmental conservation in terms of products and services or voluntary contributions. Emphasizing the commitment to ethical responsibility in the bank's internal and external practices and operations, adopting it as a core value, and including it in the bank's core values. Increasing the bank's contributions to activities related to the development of the local community in terms of employing its members, providing consulting services, or granting them special privileges to establish entrepreneurial projects. Furthermore, the study recommends developing effective operational practices by Adopting customer opinions as key indicators in developing banking services and products. Establishing a unit called Customer Relationship Management (CRM) whose mission is to

manage all customer-related issues and coordinate their requirements. Re-engineering some banking processes and procedures to simplify them in a way that ensures a speedy response to customer requirements and providing them on time. Increasing the number of external benchmarking, especially with reputable and experienced global banks and financial institutions, to benefit from their experiences and extract indicators that contribute to performance development and increase efficiency. Finally, the study recommends supporting digital transformation practices and developing a clear digital transformation strategy to enhance the bank's competitiveness and meet customer requirements.

#### 6. Proposals for future studies

- a. Carry out a study on the organizational performance of Iraqi banks and identify the obstacles hindering innovation within them.
- b. Investigate the impact of organizational climate on the relationship between entrepreneurial orientation and operational effectiveness.
- c. Conduct a study on how the development of social interaction processes influences the evolving role of social responsibility in entrepreneurship.
- d. Research the effect of competitive advantage on performance-based organizations when considering the presence of organizational culture as a variable.
- e. Conduct a study on process and procedure re-engineering in banks with the aim of expediting response times and ensuring timely completion.

#### Acknowledgement

The authors are grateful to Middle East University, Amman, Jordan, for the financial support to cover this article's publishing fee.

#### References

- Al-Nawafleh, E. A., ALSheikh, G. A. A., Abdulllah, A. A., & bin A. Tambi, A. M. (2019). Review of the Impact of Service Quality and Subjective Norms in TAM Among Telecommunication Customers in Jordan. *International Journal of Ethics* and Systems, 35(1), 148-158. <u>https://doi.org/10.1108/IJOES-07-2018-0101</u>
- Alubadi, A. S., Khalel, O. A., & Al-somaidaee, M. M. (2020). The Impact of Entrepreneurial Orientation in Enhancing the Managers' Core Competencies of Charitable Institutions in Iraq. Retrieved from ResearchGate website: <u>https://www.researchgate.net/publication/342503229\_The\_Impact\_of\_Entrepreneurial\_Orientation\_in\_Enhancing\_the\_Managers'\_Core\_Competencies\_of\_Charitable\_Institutions\_in\_Iraq</u>
- Argyropoulou, M., Reid, I., Wilkins, P., & Loannou, G. (2015). Information Quality, Reporting, and Organizational Performance. In 22nd EurOMA Conference 2015. June 26 - July 1, 2015, Neuchâtel, Switzerland. Retrieved from <u>https://core.ac.uk/download/pdf/30733422.pdf</u>
- Arshad, M. A., Shabbir, M., Mahmood, A., Khan, S., & Bait Ali Sulaiman, M. A. (2020). An Exploration of IQ, EQ, Spiritual Quotient (SQ) Elements in the Human Reengineering Program (HRP) practices: A study on the Drug Rehabilitation Centre in Malaysia. Retrieved from <u>http://dx.doi.org/10.14198/jhse.2020.15.Proc2.32</u>
- Besson, P., & Rowe, F. (2012). Strategizing information systems-enabled organizational transformation: A transdisciplinary review and new directions. *The journal of strategic information systems*, 21(2), 103-124. <u>http://dx.doi.org/10.1016/j.jsis.2012.05.001</u>
- Central Bank of Iraq. (2020). Annual eport. Retrieved from https://cbi.iq/static/uploads/up/file-163713715594818.pdf (p. 120)
- Cho, Y. H., & Lee, J. H. (2018). Entrepreneurial Orientation, Entrepreneurial Education and Performance. Asia Pacific Journal of Innovation and Entrepreneurship, 12(2), 124-134. <u>https://doi.org/10.1108/APJIE-05-2018-0028</u>
- Delima, V. J. (2017). Organizational Performance of Financial Institutions in Batticaloa District. Retrieved from <u>https://www.irejournals.com/formatedpaper/1700066.pdf</u>
- Elhadad, B., & Ibrahim, M. (2018). Business Enterprises and Digital Transformation. Journal of the Egyptian Society for Information Systems and Computer Technology, 21, 24-31. <u>https://doi.org/10.21608/JSTC.2018.116733</u>
- Feng, C., Patel, P., & Xiang, K. (2020). The Well-Trodden Path: Complementing Market and Entrepreneurial Orientation with a Strategic Emphasis to Influence IPO Survival in the United States. *Journal of Business Research*, 110, 370-385. <u>https://doi.org/10.1016/j.jbusres.2020.01.065</u>
- First International Conference on Information Technology and Business. (2020). Retrieved June 19, 2023, from http://icitb.gu.edu.ps/
- Galindo-Martín, M. Á., Castaño-Martínez, M. S., & Méndez-Picazo, M. T. (2019). Digital transformation, digital dividends and entrepreneurship: A quantitative analysis. *Journal of business research*, 101, 522-527. <u>https://doi.org/10.1016/j.jbusres.2018.12.014</u>
- Hanna, K., Brennan, D., Sambrook, P., & Armfield, J. (2015). Third Molars on the Internet: A Guide for Assessing Information Quality and Readability. *Interactive Journal of Medical Research*, 4(4), e19. <u>https://doi.org/10.2196/ijmr.4712</u>

- Huebner, J., Vuckovac, D., Fleisch, E., & Ilic, A. (2019). Fintechs and the New Wave of Financial Intermediaries. PACIS 2019 Proceedings, 3. Retrieved from <u>https://aisel.aisnet.org/pacis2019/3</u>
- Jonsson, A., Areas dos Santos, L., & Gangabada Arachchilage, P. (2020). The Key Aspects of Digitalization on Employees' Engagement in the Bank Service Delivery (Doctoral dissertation). Retrieved from http://urn.kb.se/resolve?urn=urn:nbn:se:mdh:diva-48403
- Kim, R. Y. (2020). The Impact of COVID-19 on Consumers: Preparing for Digital Sales. IEEE Engineering Management Review, 48(3), 212-218. <u>https://doi.org/10.1109/EMR.2020.2990115</u>
- Mansour, M., Al Zobi, M. T., Saleh, M. W., Al-Nohood, S., & Marei, A. (2023). The board gender composition and cost of debt: Empirical evidence from Jordan. *Business Strategy & Development*.
- Marei, A. (2023). Financial performance persistence in islamic and conventional fund family: Developing market evidence. *Decision Science Letters*, 12(4), 659-670.
- Marei, A., Abou-Moghli, A., Shehadeh, M., Salhab, H., & Othman, M. (2023). Entrepreneurial competence and information technology capability as indicators of business success. *Uncertain Supply Chain Management*, 11(1), 339-350
- Mishra, C. S. (2017). Entrepreneurial orientation. Entrepreneurship Research Journal, Advance online publication. Retrieved from SSRN: <u>https://ssrn.com/abstract=3009030</u> or <u>http://dx.doi.org/10.2139/ssrn.3009030</u>
- Nazar, N., Ramzani, S., Anjum, T., & Shahzad, I. (2018). Impact of Entrepreneurial Orientation on Bank Performance in Pakistan. Business Management and Strategy, 9(1), 290. <u>https://doi.org/10.5296/bms.v9i1.13212</u>.
- Nguyen, P. (2022). The Impact of Banking Sector Development on Economic Growth: The Case of Vietnam's Transitional Economy. *Journal of Risk and Financial Management*, 15(8), 358. <u>https://doi.org/10.3390/jrfm15080358</u>.
- Omarini, A. (2017). The Digital Transformation in Banking and the Role of FinTechs in the New Financial Intermediation Scenario. *International Journal of Finance, Economics, and Trade*, 1-6. <u>https://doi.org/10.19070/2643-038x-170001</u>
- Panigrahi, S., Mohanty, S., & Das, L. (2020). Role of the Entrepreneurial Guidance on High-Performance Work System and Productivity. *PalArch's Journal of Archaeology of Egypt / Egyptology*, 17(7), 9074-9098. Retrieved from <u>https://archives.palarch.nl/index.php/jae/article/view/3848</u>
- Purba, J.T. (2015). Strategic Innovation Through Technology Readiness and Acceptance in Implementing ICT for Corporate Sustainability. Retrieved from <u>https://www.semanticscholar.org/paper/Strategic-innovation-through-technology-</u> readiness-Purba/b105dc85fde4e1f365fd76c80e71610426e661e8
- Purnomo, B. (2019). Artistic Orientation, Financial Literacy, and Entrepreneurial Performance. Journal of Enterprising Communities: People and Places in the Global Economy, 13. <u>https://doi.org/10.1108/JEC-09-2018-0065</u>.
- Rehman, S. U., Bhatti, A., & Chaudhry, N. I. (2019). Mediating Effect of Innovative Culture and Organizational Learning between Leadership Styles at Third-Order and Organizational Performance in Malaysian SMEs. *Journal of Global Entrepreneurship Research*, 9. <u>https://doi.org/10.1186/s40497-019-0159-1</u>.
- Saleh, A. A. (2007). Entrepreneurial Styles and their Relationship with some Personal characteristics: A field exploratory research Iraqi Businessmen Union Conference.
- Saleh, M. A. K., & Rajappa, M. (2020). Moving Towards Digitalization in Small and Medium Enterprises in Least Developed Countries, Review of the case of Yemen. *International Journal for Modern Trends in Science and Technology*, 6. 233-239. 10.46501/IJMTST060839.. <u>https://doi.org/10.46501/IJMTST060839</u>
- Schwertner, K. (2017). Digital Transformation of Business. The Journal of Supercomputing, 15, 388-393. https://doi.org/10.15547/tjs.2017.s.01.065
- Sekaran, U., & Bougie, R. (2016). Research Methods for Business: A Skill-Building Approach (7th ed.). John Wiley & Sons eBooks. Retrieved from <u>http://103.227.140.9/handle/123456789/18302</u>
- Sharif, Z. F., & Aref, K. F. (2021). The Role of Entrepreneurial Orientation in Achieving Organizational Prosperity an Analytical Study of a Sample of Administrative Leaders in Private Universities in the Kurdistan Region. *Review of International Geographical Education Online*. Retrieved from <u>https://oa.mg/work/3213025869</u>
- Vijayashree, M. C. (2022). Recent Trends, Major Opportunities and Challenges of Digital Banking in Indian Context. International Journal of Research Publication and Reviews, 3(10), 269-276. <u>https://doi.org/10.55248/gengpi.2022.3.10.9</u>
- Westerman, G., Bonnet, D., & McAfee, A. (2014). The Nine Elements of Digital Transformation. MIT Sloan Management Review. Retrieved from <u>https://sloanreview.mit.edu/article/the-nine-elements-of-digital-transformation/</u>
- Zahoor, Z., Ud-din, M., & Sunami, K. (2016). Challenges in Privacy and Security in Banking Sector and Related Countermeasures. International Journal of Computer Applications, 144(3), 24-35. <u>https://doi.org/10.5120/ijca2016910173</u>
- Zaid, J., & Alsuhaiby, E. (2018). The Quality of Banking Services and Its Impact on Customers' Mental Image: A Field Study in Islamic Banks in the Republic of Yemen. *Journal of Social Studies*, 24(2), 1-26. <u>https://search.mandumah.com/Record/910436</u>



© 2024 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license (http://creativecommons.org/licenses/by/4.0/).