

THE IMPACT OF STRATEGIC INTELLIGENCE ON ORGANIZATIONAL CREATIVITY IN JORDANIAN ISLAMIC BANKS: THE MEDIATING ROLE OF ORGANIZATIONAL AGILITY

Mohammad Ali Ibrahim Al Khasabah ^{*},
Ghazy Ali Matrook Al-Badayneh ^{**}

^{*} Corresponding author, Department of Business Administration, College of Business, Tafila Technical University, Tafila, Jordan

Contact details: Tafila Technical University, P. O. Box 179, 66110 Tafila, Jordan

^{**} Department of Business Administration, College of Business, Tafila Technical University, Tafila, Jordan



Abstract

How to cite this paper:

Al Khasabah, M. A. I., & Al-Badayneh, G. A. M. (2025). The impact of strategic intelligence on organizational creativity in Jordanian Islamic banks: The mediating role of organizational agility. *Corporate & Business Strategy Review*, 6(2), 195–206.

<https://doi.org/10.22495/cbsrv6i2art19>

Copyright © 2025 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).
<https://creativecommons.org/licenses/by/4.0/>

ISSN Online: 2708-4965

ISSN Print: 2708-9924

Received: 22.08.2024

Revised: 20.11.2024; 20.12.2024; 21.05.2025

Accepted: 29.05.2025

JEL Classification: M1, M10, M16

DOI: 10.22495/cbsrv6i2art19

The current research paper aimed to know the direct impact of strategic intelligence on organizational creativity and organizational agility in Jordanian Islamic banks. As well as to know the impact of organizational agility on organizational creativity. It also aimed to determine whether organizational agility mediates the relationship between strategic intelligence and organizational creativity. The data collected from the study sample of 175 respondents were validated and tested through partial structural equation modeling of least squares. The results showed a significant positive impact of strategic intelligence on organizational creativity. The results also showed that there is a significant impact of strategic intelligence on organizational agility. In addition, the mediating role of organizational agility in the relationship between strategic intelligence and organizational creativity was confirmed. The Jordanian Islamic banking sector and other organizations seeking to increase their organizational creativity could benefit from this study, as it facilitates their employment of strategic intelligence and organizational agility dimensions in dealing with environmental ambiguity in the business environment.

Keywords: Strategic Intelligence, Organizational Agility, Organizational Creativity, Jordanian Islamic Banking

Authors' individual contribution: Conceptualization — M.A.I.A.K.; Methodology — M.A.I.A.K. and G.A.M.A.-B.; Formal Analysis — M.A.I.A.K.; Writing — Original Draft — M.A.I.A.K.; Writing — Review & Editing — G.A.M.A.-B.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

Today, organizations face serious challenges, such as the speed of environmental transformations, the increase in competition, and the rapid spread of information, which has created a major challenge that prevents organizations from achieving their future goals (Al Khasabah et al., 2022; Li, 2024). The pace of changes is accelerating within the business environment characterized by dynamism

and uncertainty in all economic, administrative, cultural, and technological fields (Hussein, 2023). All these changes require organizations to search for new and unconventional management methods to understand and analyse their environments, keep pace with their developments, and adapt to their challenges to reach organizational creativity (OC) according to an integrated approach that advances the organization in various fields (Hamour, 2021). All of this has prompted various organizations,

including Islamic banks in Jordan, to adopt strategic intelligence (SI) as one of the most important keys to dealing with environmental ambiguity to contain and influence it to ensure the achievement of OC (Al-Saqal & Al-Taie, 2022) as an approach that enables the organization to monitor the changes surrounding the organization and invest in them as opportunities that can be utilized and enhanced or as threats that must be avoided and adapted to (Mahdi & Metwally, 2023). Many studies have addressed the relationship between SI and OC and have found an important and statistically significant relationship between them (Al-Qadi & Al-Bashabsha, 2022; Hamour, 2021; Bakr, 2018; Littleton, 2018).

In the same context, organizational agility (OA) has proven its value in the current century as an ability possessed by an organization in identifying the unforeseen changes occurring within the environment and then in quickly and effectively generating the correct responses (Arbussa et al., 2017).

Regarding the relationship between the three study variables (SI, OA, and OC), the review of theoretical literature and previous studies revealed a research gap in studies that examined the relationship between these variables, especially the indirect relationship between SI and OC with OA as a mediating variable. Therefore, this research gap will be addressed through this study, which examines SI (as an independent variable), OC (as a dependent variable), and OA (as a mediating variable) within a single research model.

Jordanian Islamic banks practice their various activities in an environment that is often characterized by intense competition and swift and volatile environmental transformations. This has necessitated these banks to adopt the concept of SI, which depends on the anticipation of the future and adaptation to the changing external environmental factors. The adoption of this wise management method was also accompanied by the adoption of OA to prepare in advance to monitor any environmental transformations (Al-Qadi & Al-Bashabsha, 2022).

The proponents of resource-based view (RBV) theory believe that SI is important for the organization to discover and use its unique resources and capabilities, which focuses on the role of SI in exploring and developing valuable resources that enable the generation of competitive advantages (Colombo et al., 2024).

Based on the above, this study aims to know the direct impact of SI on OC and OA in Jordanian Islamic banks. As well as to know the impact of OA on OC. It also aimed to determine whether OA mediates the relationship between SI and OC.

This study derives its practical importance from the fact that it will provide useful information to decision-makers in Jordanian Islamic banks about the significance of SI and OA in monitoring the environmental transformations and using them as opportunities that can be used in their plans. This study will also derive its importance from the empirical evidence on the mediating role of OA in the relationship between SI and OC. In addition, its academic importance stems from what it will contribute to the literature through the theoretical framework that links the dimensions employed in this study.

The remainder of this paper is structured as follows. Section 2 discusses the theoretical literature on the study variables and constructs its hypotheses. Section 3 presents the research

methodology. Section 4 is devoted to data analysis. Section 5 discusses the results. Section 6 discusses the conclusions, limitations, and future research directions.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Strategic intelligence

SI is essentially the ability to adapt to ever-changing environmental conditions and anticipate the future through strategic analysis of internal and external environmental factors to help organizations formulate appropriate strategies to deal with environmental changes (Hamour, 2021).

The importance of artificial intelligence can be seen in its ability to describe environmental risks and threats in a way that facilitates the formulation of strategies to reduce and adapt to risks, and in developing the performance of organizations and increasing their flexibility in dealing with the external environment, exploring and evaluating available opportunities, and choosing the best ones to achieve the strategic goals of organizations (Cannaval et al., 2020). This study accordingly examines five variables of SI as below:

1. Future foresight: This variable represents the ability to see future prospects and trends by sensing the effects of external environmental factors to help the organization predict and invest in opportunities and increase its creative ability to develop innovative strategies that help it adapt to environmental changes (Maccoby & Scudder, 2011).

2. Strategic vision: This variable refers to the capability of the organization to envision its future situation, where it is headed, and what form it should take (Zarafili & Zarafili, 2023).

3. Organized thinking: According to Maccoby (2015), organized thinking represents the organization's ability to identify the elements affecting it during a specific period of time, analyze them, understand their variables, and how to deal with them.

4. Partnership and strategic alliances: Partnership describes an organization's ability to develop strategic partnerships and alliances with some other organizations to pool their resources to create a joint project (Al-Majali & Al-Zoubi, 2022).

5. Motivation: Motivation is considered as one of the main components that leaders use to encourage and motivate workers and direct their abilities and energies toward achieving the future goals of the organization (Abdelmawgoud et al., 2023).

2.2. Organizational creativity

OC in the light of continuous environmental compliance is referred to as the key to success, growth, and progress because it creates distinct processes, procedures, ideas, services, and products, which helps improve the added value for multiple stakeholders (Shahzad et al., 2016). OC entails the formation of a new valuable product, service, idea, or a process in which people collaborate in a team spirit in a complex social system. OC also refers to the characteristics of products, individuals, or thinking processes (Darvishmotevali et al., 2020).

Baer (2012) identified four management principles that help generate creative ideas in organizations: 1) managing organizations must have a more diverse knowledge base rather than let

the knowledge happens naturally; 2) organizations need to encourage and motivate the workers to adopt cooperative attitudes toward work; 3) organizations need to empower their workers; 4) organizations need to reward employees who support and believe in creativity

OC is affected by three main sources: characteristics of individual employees (such as knowledge level and personality), group characteristics (such as diversity and size), and organizational characteristics (such as organizational structure and strategy). Through the interaction of these sources, creative behavior in an organization is shaped (Karatepe et al., 2019). Chang and Shih (2019) asserted that OC is influenced by internal factors that are within the control of management (such as management practices, organizational culture, organizational structure, incentives, and the extent to which the organizational climate supports and encourages creativity and excellence).

2.3. Organizational agility

The concept of OA gains great importance when organizations grapple with each other over unexpected strategic challenges and opportunities (Arbussa et al., 2017). It also derives its importance from the capability of organization in dealing with uncertain conditions and variables in an environment full of unpredictable opportunities (Cheng et al., 2020).

OA is defined as a comprehensive response to unexpected challenges and environmental conditions through high quality and outstanding performance in meeting customers' needs and desires (Al-Zu'bi, 2016). Nafei (2016) pointed out that OA represents the organization's ability in easily altering its internal structures and processes to achieve adaptation to various environmental changes. In the same direction, Atkinson et al. (2022) emphasized that OA expresses the capacity of an organization to grow, survive, and continue in a highly competitive environment in which the environmental challenges and changes are permanent, unpredictable, and always require a rapid response.

OA has multiple aspects such as the ability to sense, respond quickly, adaptability and entrepreneurial agility (Chakravarty et al., 2013), organizational adaptability, flexibility, operational adaptability, agility, and partnership, organizational proactivity, responsiveness, organizational learning, innovation, and strategy (Zainal et al., 2020). In this study, the application of some dimensions of OA were expounded, as they are the most agreed upon and common among researchers (Park, 2011). These dimensions are as follows:

1. Sensing agility: This dimension refers to the organization's ability to monitor environmental events and changes and follow them strategically to benefit from them or adapt to them (Park, 2011).

2. Decision-making agility: This is the organizational ability in gathering, analyzing, and processing the information from various sources to allow prompt interpretation of the implications of work objectives, and also in the identification of potential opportunities and threats within the environment.

3. Acting agility, which means the organization's ability to dynamically configure its resources and modify its operations based on business principles, and according to actual, well-studied business plans, to provide new services (Langley, 2017).

2.4. Strategic intelligence and organizational creativity

Some studies have shown the importance of the relationship between SI and OC, and among these studies is a study by Al-Qadi and Al-Bashabsha (2022), the results of which proved significant moral impact of SI on OC in its dimensions (employee empowerment, excellence in decisions, and the ability to innovate) in Jordanian commercial banks. Similarly, Hamour's (2021) study also discussed the relationship between SI in its dimensions (building a strategic vision, strategic focus, the ability to create, and organizational innovation) and OC in Jordanian mechanical companies. The author found a statistically significant relationship between SI and OC. Additionally, Bakr's (2018) study also reported a presence of a relationship and a significant impact of the dimensions of SI (foreseeing the future, organized thinking, motivation, strategic alliances and partnerships, strategic vision) in developing OC at Najran University in Saudi Arabia. The findings of Tayel and Eid (2023) also highlighted the vital role of SI in enhancing creativity and innovation skills within hospitals in Egypt's Menoufia Governorate, as it significantly contributes to fostering sustainable development and cultivating a creative environment. As such, the following hypothesis can be formulated:

H1: Strategic intelligence has a significant positive impact on organizational creativity in Jordanian Islamic banks.

2.5. Strategic intelligence and organizational agility

Many previous studies indicated that the concepts of SI and OA are the cornerstones of managing organizations in the modern era because they represent an organizational approach that aims to increase the capacity of organizations in adapting to the rapid changes occurring in the organizational environment. SI can also affect OA by improving OA planning, enhancing rapid adaptation to potential challenges, enhancing a culture of leadership and innovation (Hussein, 2023). In this direction, Ismail and Al-Assa'ad (2020) confirmed that the dimensions of SI (desire for change, strategic vision, harmony, and congruence) impact significantly on the agility of decision-making in Syrian private banks. Similarly, Al-Daouri and Atrach (2020) confirmed the existence of an important correlation between the dimensions of SI (strategic vision, foresight, intuition) and OA at Union Bank of Jordan. In their study involving Jordanian industrial companies, Nisreen et al. (2023) also concluded a significant impact of SI in its various dimensions (strategic vision, organized thinking, partnership, and motivation) on organizational flexibility. A study by Al-Zu'bi (2016) also found that SI in its dimensions (vision, foresight, partnership, and creativity) has a significant impact on OA achievement in the Jordanian mining and extractive industries sector. In light of this correlational discussion, the following hypothesis can be formulated:

H2: Strategic intelligence has a significant positive impact on organizational agility in Jordanian Islamic banks.

2.6. Organizational agility and organizational creativity

OA is one of the most important concepts associated with the modern organization due to its role in increasing the organization's ability to face multiple environmental challenges or in providing services that meet the desires, tastes, and satisfaction of the customer (Nima et al., 2020). In the same direction, Hussein's (2023) study indicated the importance of OA in achieving advanced levels of OC and raising its level through the improvement of the quality of services and goods provided to the customer. Similarly, Dahan et al. (2023) concluded from their results, a statistically significant impact of the different types of OA (tactical agility, operational agility, and strategic agility) on the OC of employees at the National Institute in Algeria. In addition, Ibrahim's (2024) study, conducted on Saudi banks, showed that OA significantly influences both organizational and strategic creativity, enabling banks to manage their resources in an innovative and competitive manner. As such, the following hypothesis can be formulated:

H3: Organizational agility has a significant positive impact on organizational creativity in Jordanian Islamic banks.

2.7. The modifying role of organizational agility as a mediating variable in the relationship between strategic intelligence and organizational creativity

The nature of environmental challenges requires quick decisions that are characterized by creativity and flexibility and are based on an integrated system

to predict the future, determine its features, and know what changes are taking place in it, and all of this is achieved through creative decisions based on SI data (Al-Warqi et al., 2023).

The emergence of OA as an intermediary variable has attracted the attention of researchers because the ideas extracted from data analysis using SI are valuable information for organizations (Aljawarneh, 2024). OA plays a pivotal role in translating these ideas into implementable steps. Thus, the distinctive feature of agile organizations becomes the speed of organization in responding to the environmental requirements and the effective implementation of innovative ideas, which ultimately leads to the achievement of OC and excellence (Russell et al., 2019). Hence, the hypothesis below was proposed:

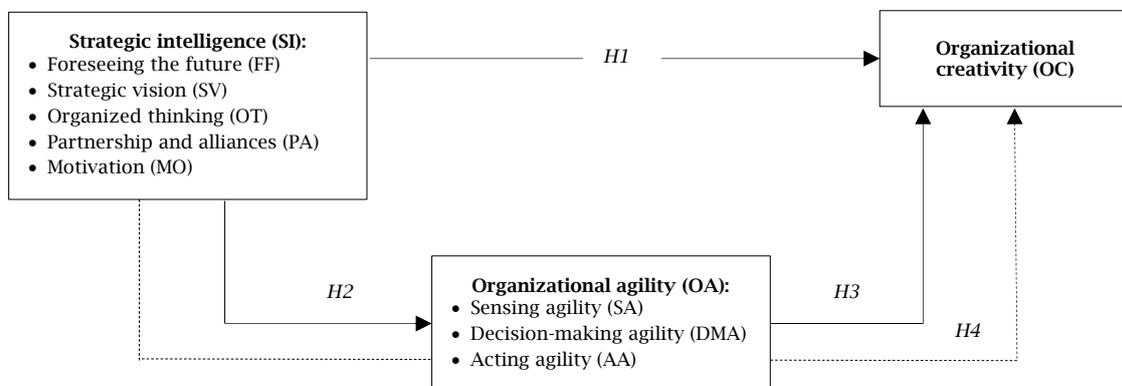
H4: Organizational agility mediates the relationship between strategic intelligence and organizational creativity in Jordanian Islamic banks.

3. RESEARCH METHODOLOGY

3.1. Research framework

The study model illustrates the relationship between its many different variables, where, strategic intelligence (SI) represents the independent variable while organizational creativity (OC) represents the dependent variable. Finally, the mediating variable is organizational agility (OA) with its dimensions namely sensing agility, decision-making agility, and acting agility.

Figure 1. Research framework



3.2. Research design

The descriptive analytical approach with the applied approach (cross-sectional survey method) was applied to achieve the study purpose. Using this approach, the researcher could obtain data, analyze them, and test the hypotheses without interfering with the respondent who answered the questionnaire questions (Cooper & Schindler, 2014).

3.3. Population and sample

This study used managers as a unit of analysis, and according to the human resources departments in the Islamic banking sector, there were 395 managers in total with the following breakdowns: 147 managers in Jordan Islamic Bank, 142 managers

in Arab Islamic Bank, and 95 managers in Safwa Islamic Bank. However, Safwa Islamic Bank declined to participate. Accordingly, the final study community consisted of 289 respondents. The study sample comprised the managers because managers play a pivotal role in the success of Bank operations due to their sufficient experience (Al-Ababneh, 2016; Roth, 1998). This study employed a sample size of 165, and the respondents represented 57.09% of the study population, according to the guidelines of Sekaran and Bouji (2016). In addressing the issue of non-response and also to decrease sampling error, this study had increased the sample size to amount to 70% of the study population (Hair et al., 2010). In total, 203 questionnaires were disseminated to the study participants, and 186 of these questionnaires were retrieved, from which, 175 were valid for analysis.

3.4. Data collection instrument

As mentioned, the questionnaire was employed as the instrument to gather data. It consists of four parts, and the first part includes the information about the respondent's background, while the second part consists of five dimensions to measure the independent variable (*SI*) with 20 items. The third part measures the dependent variable (*OC*) with 9 items. The last part of the questionnaire includes 10 items allocated to measure the mediating variable (*OA*). The scale used in the tool is a five-point Likert scale, which ranges from the scale of 5 which means "strongly agree" to the scale of 1 which means "strongly disagree".

3.5. Data analysis

The study data were analyzed with the use of the SmartPLS technique involving two stages. During the first stage, the measurement model was tested, while during the second stage, the structural model was tested. Statistical Package for the Social Sciences (SPSS) was also used to extract the descriptive statistics.

3.6. Variable measurement

The independent variable (*SI*) was measured with 20 items that covered the following dimensions: foreseeing the future (*FF*), strategic vision (*SV*),

organized thinking (*OT*), partnership and alliances (*PA*), and motivation (*MO*). The items were adopted and developed from Al-Qadi and Al-Bashabsha (2022), Maccoby and Scudder (2011), and Hussein (2023). As for the dependent variable (*OC*), it was measured by 12 items taken from Dahan et al. (2023). As for the mediating variable (*OA*), it was measured according to the dimensions of sensing agility (*SA*), decision-making agility (*DMA*), and acting agility (*AA*) with 9 items taken from Hussein (2023).

4. ANALYSIS AND RESULTS

This study applied the descriptive statistics such as means, standard deviations, frequencies, kurtosis, and skewness via the SPSS version 25.0. SmartPLS software was also used to evaluate the study model and test the hypotheses proposed. Below is a presentation of the results of the analysis process.

4.1. Data screening

The process of examining the data is intended as a proactive step for assuring no missing data or outliers and also for assuring normal distribution of data. Hence, the skewness and kurtosis test were carried out. Results indicated that the level of kurtosis and skewness is lower than ± 2 , as shown in Table 1. Based on Singh and Sharma (2016), the study data showed satisfactory characteristics.

Table 1. Assessment of the normality of the variables

Constructs	Items	N	Skewness		Kurtosis	
			Statistic	Std. Error	Statistic	Std. Error
Independent variable: <i>SI</i>	<i>FF</i>	175	-0.709	0.184	0.338	0.365
	<i>SV</i>	175	-0.514	0.184	0.066	0.365
	<i>OT</i>	175	-0.366	0.184	-0.182	0.365
	<i>PA</i>	175	-0.690	0.184	0.489	0.365
	<i>MO</i>	175	-0.630	0.184	0.308	0.365
Dependent variable: <i>OC</i>	<i>OC</i>	175	-0.333	0.184	-0.799	0.365
	<i>SA</i>	175	-0.275	0.184	-0.670	0.365
Mediator variable: <i>OA</i>	<i>DMA</i>	175	-0.434	0.184	-0.0133	0.365
	<i>AA</i>	175	-0.669	0.184	0.630	0.365

4.2. Descriptive analysis of study variables

Table 2 shows that the average values of the *SI* elements were 4.15 for future foresight, 4.29 for strategic vision, 4.30 for organized thinking, 4.18 for partnership and alliances, and 4.24 for motivation. In the same path, the average scores for the *OA*

components were 4.13 for sensing agility, 4.16 for decision-making agility, and 4.24 for action agility, while the average scores for the *OC* component were 4.32. As shown, the *SI* and *OA* dimensions recorded high values, indicating their importance and role in *OC* in these banks.

Table 2. Descriptive analysis of study variables

Constructs	Items	N	Minimum	Maximum	Mean	Std. Dev.
Independent variable: <i>SI</i>	<i>FF</i>	175	2.00	5.00	4.15	0.616
	<i>SV</i>	175	2.75	5.00	4.29	0.506
	<i>OT</i>	175	3.00	5.00	4.30	0.486
	<i>PA</i>	175	2.25	5.00	4.18	0.576
	<i>MO</i>	175	2.50	5.00	4.24	0.542
Dependent variable: <i>OC</i>	<i>OC</i>	175	3.00	5.00	4.32	0.464
	<i>SA</i>	175	2.75	5.00	4.13	0.565
Mediator variable: <i>OA</i>	<i>DMA</i>	175	2.75	5.00	4.16	0.514
	<i>AA</i>	175	2.25	5.00	4.24	0.536

4.3. Measurement model assessment

It is clear from the study model (Figure 1) that it (the model) includes two types of structures, which are two higher-order constructs (reflective – reflective). The first is *SI* as an independent variable,

and it includes five first-order structures (foreseeing the future, strategic vision, organized thinking, partnerships and alliances, and motivation). The second is *OA* as a mediator variable, and it includes three first-order structures: sensing agility, decision-making agility, and acting agility. Additionally, the model includes one first-order

reflective construct, which is *OC*, as a dependent variable. A two-stage approach analysis as recommended by Sarstedt et al. (2019) was hence employed in this study. Moreover, it is recommended to use a two-stage analysis approach when the mediating or endogenous variable is a multidimensional variable (Becker et al., 2012).

During the first stage, before testing the hypotheses, evaluation was made to the measurement model. This was to assure that the employed tools were valid and reliable. The evaluation involved checking the convergent validity, the discriminant validity, in addition to Cronbach's alpha (Henseler et al., 2015).

4.3.1. Assessment of the convergent validity of the measurement model using confirmatory factor analysis

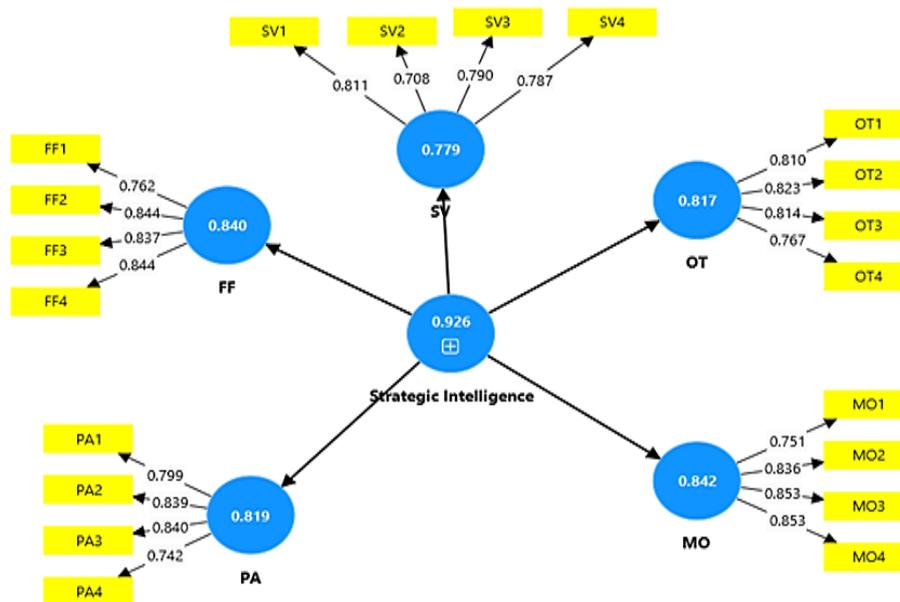
According to Hair et al. (2010), it is necessary to test the convergent validity to determine the level to which a group of items converges through tests of

composite reliability, external loading, and average variance extracted (AVE), the value of which should not be less than 0.60, 0.60, and 0.50, respectively. The internal consistency reliability of the constructs was also assessed using Cronbach's alpha criterion and the acceptable threshold value was 0.7 as suggested by Hair et al. (2010). In addition, the associations between the variables in the measurement model were determined by applying confirmatory factor analysis (CFA) as proposed by Ho (2006).

4.3.2. CFA model for the second-order construct: Strategic intelligence

A total of 20 items were included in the CFA model. These items measure the five first-order constructs of the second-order construct of *SI*, namely foresting the future, strategic vision, organized thinking, partnership and alliances, and motivation. For *SI* and its 20 items, its initial CFA model was truncated from the overall format (see Figure 2).

Figure 2. Modified CFA model for strategic intelligence



Reliability and convergent validity of the second-order construct: Strategic intelligence

It is clear from Table 3 that the convergent validity (CV) of all the 20 components of *SI* achieved external loadings exceeding 0.60 as recommended by Chin et al. (2008). In addition, the values for CR and AVE

were respectively higher than 0.60 and 0.50. Furthermore, the values of Cronbach's alpha were higher in comparison to the cut-off value of 0.70 proposed by Nunnally and Bernstein (1994), which means that all components were adequately reliable to correctly measure their corresponding construct.

Table 3. Cronbach's alpha and convergent validity for the model for strategic intelligence

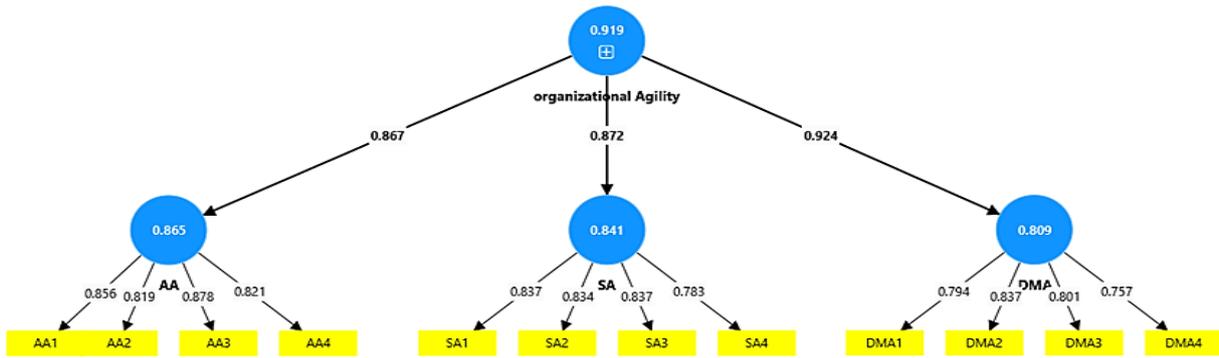
Construct	Items	Factor loading ranges	AVE	Composite reliability	Cronbach's alpha
FF	4	0.762-0.849	0.677	0.893	0.840
SV	4	0.708-0.811	0.601	0.857	0.779
OT	4	0.767-0.823	0.646	0.879	0.871
PA	4	0.742-0.840	0.650	0.881	0.819
MO	4	0.751-0.853	0.679	0.894	0.842

CFA model for the second-order construct: Organizational agility

The CFA model includes 12 items in measuring the three first-order constructs of the second-order

construct of *OA* namely, sensing agility, decision-making agility, and practice agility. For *OA* and its 12 items, its initial CFA model was truncated from the overall format (see Figure 3).

Figure 3. Modified CFA model for organizational agility



Reliability and convergent validity of the second-order construct: Organizational agility

As demonstrated in Table 4, the external loadings of all components of OA were greater than the cut-off value of 0.60 proposed by Chin et al. (2008). Additionally, the values for CR and AVE respectively

exceeded the recommended cut-off value of 0.60 and 0.50. Furthermore, the values of Cronbach's alpha were larger when compared to Nunnally and Bernstein's (1994) proposed cut-off of 0.70, which clearly signifies adequate level of reliability of each component to correctly measure its structure.

Table 4. Cronbach's alpha and convergent validity for the model for organizational agility

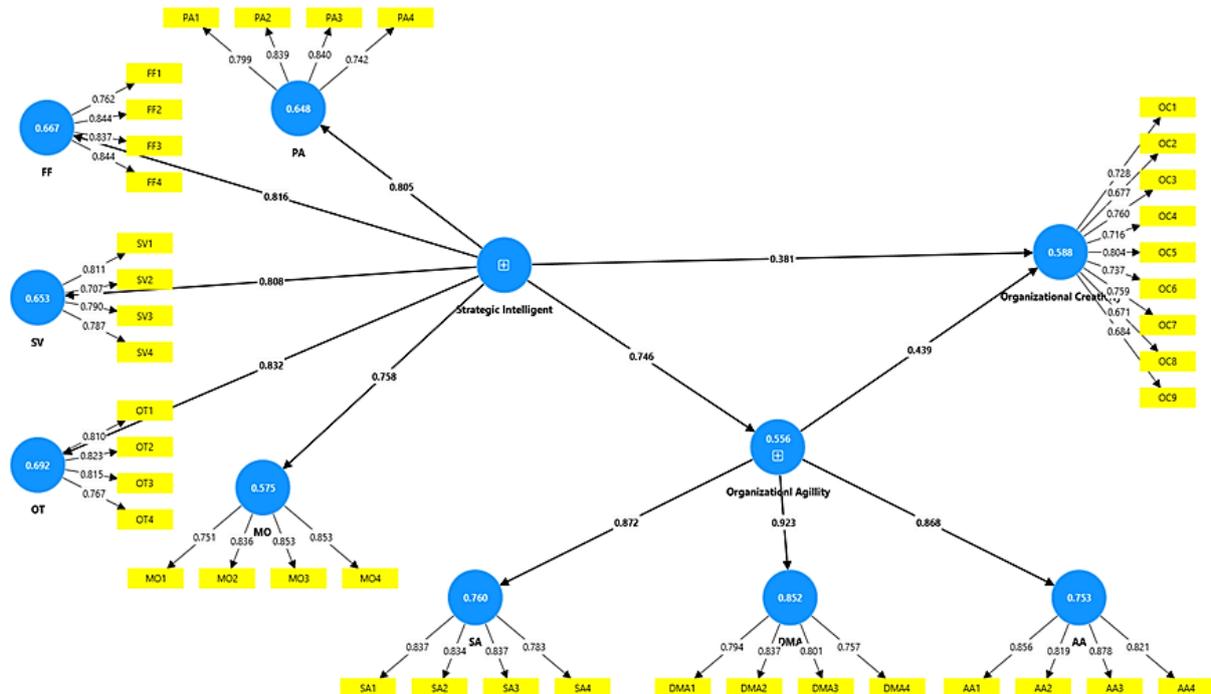
Construct	Items	Factor loading ranges	AVE	Composite reliability	Cronbach's alpha
SA	4	0.783-0.837	0.678	0.894	0.891
DMA	4	0.757-0.837	0.636	0.875	0.809
AC	4	0.819-0.878	0.712	0.908	0.865

CFA model for the overall measurement model

CFA was used to evaluate the measurement model, which included two second-order constructs: strategic intelligence (20 items), as the independent

variable, and organizational agility (12 items), as the mediating variable, in addition to one first-order construct, organizational creativity (9 items), as the dependent variable.

Figure 4. Modified CFA model for overall measurement model (first order, second order)



Reliability and convergent validity of the overall measurement model

The convergent validity test results displayed in Table 5 demonstrate that all elements of the overall model achieved external loadings exceeding the tolerable value of 0.60 proposed by Chin et al. (2008). As displayed, the value of AVE was more

than 0.50, while the composite reliability was more than 0.70. It also appears from the table that the Cronbach's alpha values were higher than Nunnally and Bernstein's (1994) recommended tolerable value of 0.7, affirming that all components of the overall model were reliable enough to correctly measure the structure of each of them.

Table 5. Results of convergent validity and Cronbach's alpha for the overall measurement model

Construct	Items	Factor loading	AVE	Composite reliability	Cronbach's alpha
Strategic intelligence: SI	FF	0.816	0.576	0.935	0.926
	SV	0.808			
	OT	0.832			
	PA	0.805			
Organizational agility: OA	SA	0.872	0.531	0.931	0.919
	DMA	0.923			
	AA	0.868			
Organizational creativity: OC	OC 1	0.728	0.529	0.910	0.888
	OC 2	0.677			
	OC 3	0.760			
	OC 4	0.716			
	OC 5	0.804			
	OC 6	0.737			
	OC 7	0.759			
	OC 8	0.671			
	OC 9	0.684			

4.3.3. The discriminant validity

In evaluating the discriminant validity, Fornell and Larcker's (1981) approach was applied in this study. This involves comparison of the diagonal elements in the correlation matrix as representative of the square roots of the AVE, with the correlation values playing the role of the off-diagonal elements. According to Fornell and Bookstein (1982), discriminant validity can be affirmed when the diagonal values are all greater than the off-diagonal values in the exact rows and columns.

Variable correlation of the second-order construct, strategic intelligence through the Fornell-Larcker criterion

Table 6 shows that the discriminant validity of the SI variable was achieved because the diagonal values were all greater than the non-diagonal values within the rows and columns in the correlation matrix, as recommended by Fornell and Bookstein (1982).

Table 6. Discriminant validity for strategic intelligence

	FF	MO	OT	PA	SV
FF	0.823				
MO	0.414	0.824			
OT	0.672	0.532	0.804		
PA	0.558	0.557	0.570	0.806	
SV	0.631	0.536	0.558	0.551	0.775

Variable correlation of the second-order construct, organizational agility using the Fornell-Larcker criterion

Table 7 indicates that the discriminant validity of the OA variable was achieved because the entire diagonal values were greater than the non-diagonal values within the rows and columns in the correlation matrix (Fornell & Bookstein, 1982).

Table 7. Discriminant validity for organizational agility

	AA	DMA	SA
AA	0.844		
DMA	0.719	0.798	
SA	0.582	0.746	0.823

Variable correlation of the overall measurement model through the Fornell-Larcker criterion

Table 8 displays the results achieved from the Fornell and Larcker's test, where each construct's diagonal values seem higher in comparison to other non-diagonal values within each column or row in the correlation, which indicates that the study constructs all have sufficient discriminant validity.

Table 8. Discriminant validity for the overall measurement model

	AA	DMA	FF	MO	OT	OC	PA	SA	SV
AA	0.844								
DMA	0.718	0.798							
FF	0.456	0.513	0.823						
MO	0.614	0.595	0.414	0.824					
OT	0.547	0.563	0.672	0.533	0.804				
OC	0.641	0.632	0.489	0.663	0.583	0.727			
PA	0.510	0.513	0.558	0.557	0.570	0.545	0.806		
SA	0.582	0.746	0.475	0.524	0.480	0.652	0.541	0.823	
SV	0.520	0.574	0.631	0.536	0.558	0.567	0.551	0.549	0.775

4.4. Structural model assessment

In the analysis, during the first stage particularly, this study could confirm the reliability and validity of the measurement model through tests of convergent validity and discriminant validity. In the same context, for the internal model evaluation, Hair et al. (2017) recommended conducting some tests on the basic structure, namely, Coefficient of determination (R²) for the endogenous variables, effect size (F²) of the exogenous variables, prediction relevance (Q²), and collinearity variance inflation factor (VIF). All these tests are listed in Table 9. The ensuing step was for testing the proposed hypotheses. For the purpose, the bootstrapping technique was applied, as recommended by Felsenstein (1985). In this test, the direct effects were used for the direct hypotheses testing, while the indirect effects were used for the mediation hypothesis testing, as proposed by Hair et al. (2017).

Table 9 shows that the predictive value of R² for OC was 0.588 and for OA was 0.566, which means that roughly 58% of the variance in OC is explicable by two external variables, namely SI and OA. Additionally, roughly 56% of the variance in OA can be explained by one external variable, namely SI. The overall results also show that R² exceeded the threshold of 0.19 proposed by Chin (1998). Furthermore, Table 9 is showing that F² value for the external predictors was 0.175, 1.251, and 0.208, which are moderate, large, and moderate effect sizes, respectively, in accordance with the recommendations by Cohen (1988). These values indicate the level to which external predictors

explain OC and OA. Moreover, Q² for OC was 0.493, and for OA was 0.548, which is larger than 0, and based on Chin (2010), the model has predictive relevance. Table 9 also shows all the VIF values fall within the range between 2.067 and 2.650, which is lower than 5, for all the inner models (Hair et al., 2017). Three first-order structures: sensing agility, decision-making agility, and acting agility. Additionally, the model includes one first-order reflective construct, which is OC, as a dependent variable. A two-stage approach analysis as recommended by Sarstedt et al. (2019) was hence employed in this study. Moreover, it is recommended to use a two-stage analysis approach when the mediating or endogenous variable is a multidimensional variable (Becker et al., 2012).

Table 9. Evaluation of the structural model

Hypothesis	Relationship	F ²	R ²	Q ²	VIF
H1	SI – OC	0.175	0.588	0.493	2.249
H2	SI – OA	1.251	0.566	0.548	2.650
H3	OA – OC	0.208			2.067

4.4.1. Hypothesis testing

It is evident from the structural model test results (Table 10) that SI imparts a positive effect on OC at 0.001 significance level ($\beta = 0.381$, $t = 4.838$, $p < 0.001$), which supports H1. Similarly, results show significant impact of SI on OA at 0.001 significance level ($\beta = 0.746$, $t = 18.159$, $p < 0.001$), which supports H2 as well. It was also found that OA has a positive impact on OC at 0.001 significance level ($\beta = 0.439$, $t = 5.193$, $p < 0.001$), which supports H3.

Table 10. Hypotheses testing results

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	p-value	Decision
H1	SI – OC	0.381	0.079	4.838	0.000	Supported
H2	SI – OA	0.746	0.041	18.159	0.000	Supported
H3	OA – OC	0.439	0.085	5.193	0.000	Supported

4.4.2. Testing the mediating role of organizational creativity

The approach proposed by Preacher and Hayes (2008) was applied in the present work, to explore the mediating role of OA in the relationship between SI and OC. It appears from the bootstrapping analysis (results are presented in Table 11) that the indirect effect of SI on OC via OA was both

positive and significant at the 0.05 level ($\beta = 0.232$, $t = 5.987$, $p = 0.000$). Additionally, for the indirect effect, the boot confidence interval (CI) bias-corrected did not straddle a 0 in between. This signifies a mediation effect (Preacher & Hayes, 2008). Also, the lower level (LL) = 0.198, and the upper level (UL) = 0.456. these results showed statistically significant mediation effect of OC and therefore, H4 was supported.

Table 11. Mediation effect

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	p-value	LL (2.5)	UL (97.5)	Decision
H4	SI – OA – OC	0.327	0.066	4.937	0.000	0.198	0.456	Supported

5. DISCUSSION

This empirical study attempted to verify experimentally: 1) the effect of SI on OC; 2) the effect of SI on OA; 3) the effect of OA on OC; 4) the modifying role of OA as a mediating variable in the relationship between SI and OC. Accordingly, four hypotheses were tested using SmartPLS, to accomplish the aforementioned goals.

The obtained results led to a deduction of a statistically significant effect of SI on OC. This result can be explained by the importance that Islamic banks have given to SI, as it represents an important tool that helps senior management in Islamic banks formulate the strategies related to

emergencies in light of the rapid and highly complex environmental changes. The results were in agreement with those attained by Al-Qadi and Al-Bashabsha (2022), Hamour (2021), Bakr (2018), and Tayel and Eid (2023) as they all reported statistically significant effect of SI on OC. The findings of this study align with those of Tayel and Eid (2023), who found that the application of SI has a direct influence on enhancing creativity and innovation skills, thereby fostering a creative environment.

Results of this study also show statistically significant effect of SI on OA. This result can be explained by the keenness given by Islamic banks to the concepts of SI and OA, as they represent

the cornerstone of the world of business and organization management because they help to make banks more flexible and more able to adapt to rapid changes in the changing business environments. The results attained were in agreement with those reported by Ismail and Al-Assa'ad (2020), Al-Daouri and Atrach (2020), Nisreen et al. (2023), Al-Zu'bi (2016), and Hussein (2023), because all of them confirmed that SI has a direct impact on OA.

A statistically significant effect of OA on OC was also demonstrated by the results. This result can be attributed to the interest of Islamic banks in the concept of OA, as it is the key to achieving OC because it: 1) helps in promoting rapid adaptation in the business environment; 2) it facilitates the improvement of the culture of innovation, which contributes to continuous improvements that enhance OC. The results obtained in this study are thus in line with those of Hussein (2023), Dahan et al. (2023), Ibrahim (2024), and Abdel Moneim (2024), which confirmed that OA has a strong relationship with OC.

The results of the examination of the modifying role of OA as a variable functioning as a mediator to the relationship between SI and OC also indicated the importance of this role, as agility contributes to transforming ideas into practical and actionable steps. These findings align with those of Al-Warqi et al. (2023) because the nature of environmental challenges requires quick decisions that are characterized by creativity and flexibility and are based on an integrated system to predict the future. The ideas extracted from data analysis using SI are valuable information for organizations (Aljawarneh, 2024) and thus the distinctive feature of agile organizations becomes the speed of the organization in responding to the environmental requirements

and the effective implementation of innovative ideas, which ultimately leads to the achievement of OC and excellence (Russell & Swanson, 2019).

6. CONCLUSION

This paper entails a scrutiny of the relationship between the variables of SI, OA, and OC in Jordanian Islamic banks. In the framework that analyses the relationship between its variables, this study presented an in-depth insight and empirical substantiation of the direct effect of SI on both OA and OC, as well as the indirect role (modifying role) of OA as an intermediary variable in the relationship between SI and OC. From a practical standpoint, the results attained in this study may draw senior management in Islamic banks to the importance of both SI and OA as important sources for developing more strategies to deal with complex environmental ambiguity

Notably, the current study contains some limitations that must be taken into account to identify future research opportunities. Firstly, this study applied a cross-sectional design in data gathering, specifically through a questionnaire, so, future studies may consider using a longitudinal research design that will provide the researcher with the knowledge of the causal relationship between the study variables over time. Moreover, this study was applied in the Islamic banking sector, so, there will be a need to conduct future research in other sectors such as the insurance and communications sector. Future studies can also explore the relationship between the study variables in more depth by using other mediating variables such as organizational learning and organizational immunity.

REFERENCES

- Abdelmawgoud, M. T. A., Ebrahim, M. A. E., & Moftah, K. A. K. (2023). Analyzing the dimensions of strategic intelligence in hotel chains in Egypt. *Minia Journal of Tourism and Hospitality Research (MJTHR)*, 15(3), 53-85. <https://doi.org/10.21608/mjthr.2023.203130.1091>
- Al Khasabah, M. A. I., Salleh, H. S., Mat, N. H. N., & Zulkiffli, S. N. A. (2022). Nexus between total quality management and competitive advantage in the Jordanian banking sector: The mediating effect of quality performance. *Corporate Governance and Organizational Behavior Review*, 6(2), 193-205. <https://doi.org/10.22495/cgobrv6i2sip3>
- Al-Ababneh, M. M. (2016). Employees' perspectives of service quality in hotels. *Research in Hospitality Management*, 6(2), 189-193. <https://doi.org/10.1080/22243534.2016.1253287>
- Al-Daouri, Z. M., & Atrach, B. K. (2020). The impact of strategic intelligence on strategic flexibility in Bank Al-Etihad in Jordan. *Globus-An International Journal of Management and IT*, 12(1), 38-45. <https://doi.org/10.46360/globus.mgt.120202007>
- Aljawarneh, N. M. (2024). The mediating role of organizational agility between business intelligence and innovative performance. *Journal of Statistics Applications & Probability*, 13(3), 929-938. <https://doi.org/10.18576/jsap/130307>
- Al-Majali, R. A., & Al-Zoubi, K. (2022). The effect of strategic intelligence on enhancing the performance of higher education institutions: A field study of Mutah University. *Humanities and Social Sciences Series*, 36(2), 13-32. <https://ejournal.mutah.edu.jo/index.php/hsss/article/viewFile/1663/412>
- Al-Qadi, H., & Al-Bashabsha, S. (2022). The impact of strategic intelligence on organizational creativity, an applied study on the executive managers in the Jordanian commercial banks. *Humanities and Social Sciences Series*, 37(5), 189-226. <https://ejournal.mutah.edu.jo/index.php/hsss/article/viewFile/1347/536>
- Al-Saqal, A. H., & Al-Taie, I. A. H. (2022). Strategic intelligence and its impact on human resources management strategies: An analytical exploratory study of the opinions of a sample of administrative leaders at the Iraqi University. *Al-Ghary Journal of Economic and Administrative Sciences*, 18(3), 359-384. <https://doi.org/10.36325/ghjec.v18i3.14003>
- Al-Warqi, M. S. A., Al-Manzou, Z. A. A., & Al-Qurashi, A. A. (2023). The impact of strategic intelligence in developing organizational performance: A case study of the Yemeni General Telecommunications Corporation. *Albaydha University Journal*, 5(4). <https://doi.org/10.56807/buj.v5i4.399>
- Al-Zu'bi, H. A. (2016). Aspects of strategic intelligence and its role in achieving organizational agility: An empirical investigation. *International Journal of Academic Research in Business and Social Sciences*, 6(4), 233-241. <https://doi.org/10.6007/IJARBS/v6-i4/2101>
- Arbussa, A., Bikfalvi, A., & Marquès, P. (2017). Strategic agility-driven business model renewal: The case of an SME. *Management Decision*, 55(2), 271-293. <https://doi.org/10.1108/MD-05-2016-0355>

- Atkinson, P., Hizaji, M., Nazarian, A., & Abasi, A. (2022). Attaining organizational agility through competitive intelligence: The roles of strategic flexibility and organizational innovation. *Total Quality Management & Business Excellence*, 33(3-4), 297-317. <https://doi.org/10.1080/14783363.2020.1842188>
- Baer, M. (2012). Putting creativity to work: The implementation of creative ideas in organizations. *Academy of Management Journal*, 55(5), 1102-1119. <https://doi.org/10.5465/amj.2009.0470>
- Bakr, S. (2018). The impact of strategic intelligence on organizational creativity: An applied study on Najran University. *Journal of Economic and Administrative Sciences*, 9(19), 272-292. https://aujeas.uoanbar.edu.iq/article_134962_4d660a39c6f18b946b9851c772455959.pdf
- Becker, J. M., Klein, K., & Wetzels, M. (2012). Hierarchical latent variable models in PLS-SEM: Guidelines for using reflective-formative type models. *Long Range Planning*, 45(5-6), 359-394. <https://doi.org/10.1016/j.lrp.2012.10.001>
- Cannavale, C., Zohoorian Nadali, I., & Esemplio, A. (2020). Entrepreneurial orientation and firm performance in a sanctioned economy — Does the CEO play a role? *Journal of Small Business and Enterprise Development*, 27(6), 1005-1027. <https://doi.org/10.1108/JSBED-11-2019-0366>
- Chakravarty, A., Grewal, R., & Sambamurthy, V. (2013). Information technology competencies, organizational agility, and firm performance: Enabling and facilitating roles. *Information Systems Research*, 24(4), 976-997. <https://doi.org/10.1287/isre.2013.0500>
- Chang, Y. Y., & Shih, H. Y. (2019). Work curiosity: A new lens for understanding employee creativity. *Human Resource Management Review*, 29(4), Article 100672. <https://doi.org/10.1016/j.hrmr.2018.10.005>
- Cheng, C., Zhong, H., & Cao, L. (2020). Facilitating speed of internationalization: The roles of business intelligence and organizational agility. *Journal of Business Research*, 110, 95-103. <https://doi.org/10.1016/j.jbusres.2020.01.003>
- Chin, W. W. (1998). *The partial least squares approach to structural equation modeling*. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295-336). Lawrence Erlbaum Associates. https://www.researchgate.net/publication/311766005_The_Partial_Least_Squares_Approach_to_Structural_Equation_Modeling
- Chin, W. W. (2010). How to write up and report PLS analyses. In V. E. Vinzi, W. W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of partial least squares: Concepts, methods and applications* (pp. 655-690). Springer. https://doi.org/10.1007/978-3-540-32827-8_29
- Chin, W. W., Peterson, R. A., & Brown, S. P. (2008). Structural equation modeling in marketing: Some practical reminders. *Journal of Marketing Theory and Practice*, 16(4), 287-298. <https://doi.org/10.2753/MTP1069-6679160402>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.
- Colombo, M. G., Lucarelli, C., Marinelli, N., & Micozzi, A. (2024). Emergence of new firms: A test of the resource-based view, signaling and behavioral perspectives. *International Entrepreneurship and Management Journal*, 20, 1153-1196. <https://doi.org/10.1007/s11365-024-00951-z>
- Cooper, D. R., & Schindler, P. (2014). *Business research methods*. McGraw-Hill Education.
- Dahan, Q., & Umm Al-Khair, B. O. (2023). *The role of organizational flexibility in enhancing organizational creativity* [Doctoral dissertation, Ahmed Deraya University — Adrar]. <https://dspace.univ-adrar.edu.dz/jspui/handle/123456789/8217>
- Darvishmotevali, M., Altinay, L., & Köseoglu, M. A. (2020). The link between environmental uncertainty, organizational agility, and organizational creativity in the hotel industry. *International Journal of Hospitality Management*, 87, Article 102499. <https://doi.org/10.1016/j.ijhm.2020.102499>
- Felsenstein, J. (1985). Confidence limits on phylogenies: An approach using the bootstrap. *Evolution*, 39(4), 783-791. <https://doi.org/10.1111/j.1558-5646.1985.tb00420.x>
- Fornell, C., & Bookstein, F. L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing Research*, 19(4), 440-452. <https://doi.org/10.2307/3151718>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Hair, J. F., Jr., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications. <https://doi.org/10.15358/9783800653614>
- Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Prentice Hall.
- Hamour, H. M. J. A. (2021). The effect of strategic intelligence of leaders on organizational innovation in Jordanian industrial companies. *Journal of Management Information and Decision Sciences*, 24(6), 1-16. <https://www.abacademies.org/articles/the-effect-of-strategic-intelligence-of-leaders-on-organizational-innovation-in-jordanian-industrial-companies.pdf>
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems*, 116(1), 2-20. <https://doi.org/10.1108/IMDS-09-2015-0382>
- Ho, R. (2006). *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. Chapman and Hall/CRC. <https://doi.org/10.1201/9781420011111>
- Hussein, R. R. M. (2023). The impact of strategic intelligence in enhancing organizational agility: Analysis of the modifying role of organizational resilience by application to Egypt Air. *Alexandria University Journal of Administrative Sciences*, 60(6), 267-328. <https://dx.doi.org/10.21608/acj.2023.327355>
- Ibrahim, M. A. (2024). The impact of organizational agility on the strategic leadership of Saudi banks. *Scientific Journal of Financial and Commercial Studies and Research*, 5(1), 1-37. https://journals.ekb.eg/article_324777_a1b1e7b745a6e2c96cb4f02acb6ca925.pdf
- Ismail, H., & Al-Assa'ad, N. (2020). The impact of organizational intelligence on organizational agility: An empirical study in Syrian private banks. *International Journal of Academic Research in Business and Social Sciences*, 10(2), 465-483. <https://doi.org/10.6007/IJARBS/v10-i2/6944>
- Karatepe, O. M., Ozturk, A., & Kim, T. T. (2019). Servant leadership, organizational trust, and bank employee outcomes. *The Service Industries Journal*, 39(2), 86-108. <https://doi.org/10.1080/02642069.2018.1464559>
- Langley, M. (2017). *Achieving greater agility: The people and process drivers that accelerate results*. Project Management Institute.

- Li, Z. (2024). Organizational strategic navigation in a dynamic environment: Insights into market competition, technological change, and policy dynamics. *Advances in Economics, Management and Political Sciences*, 108, 98-103. <https://doi.org/10.54254/2754-1169/108/20241909>
- Maccoby, M. (2015). *Strategic intelligence: Conceptual tools for leading changes*. Oxford University Press.
- Maccoby, M., & Scudder, T. (2011). Strategic intelligence: A conceptual system of leadership for change. *Performance Improvement*, 50(3), 32-40. <https://doi.org/10.1002/pfi.20205>
- Mahdi, S., & Metwally, M. (2023). The mediating role of strategic leadership in the relationship between strategic intelligence practices and sustainable performance. *Journal of Financial and Business Research*, 24(2), 101-157. https://jsst.journals.ekb.eg/article_291518_85435e849c0005642d5601966af9144f.pdf
- Nafei, W. (2016). The role of organizational agility in reinforcing job engagement: A study on industrial companies in Egypt. *International Business Research*, 9(2), 153-167. <https://doi.org/10.5539/ibr.v9n2p153>
- Nima, M. M., Mahdi, A. G., & Hussein, H. W. (2020). The interactive role of organizational elegance between organizational anomaly and planned human resource behavior: A survey of a sample of workers in the Ministry of Construction and Housing. *Journal of Economics and Administrative Sciences*, 26(120). <https://doi.org/10.33095/jeas.v26i120.1915>
- Nisreen, A. H., & Al-Riahi, O. C. (2023). The impact of strategic intelligence on strategic flexibility in industrial engineering companies in Jordan. *Journal of Educational and Human Sciences*, (23), 140-160. <https://doi.org/10.33193/JEAHS.23.2023.355>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. McGraw-Hill.
- Park, Y. K. (2011). *The dynamics of opportunity and threat management in turbulent environments: The role of information technologies* [Doctoral dissertation, ProQuest LLC]. https://gateway.proquest.com/openurl?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&res_dat=xri:pqdiss&rft_dat=xri:pqdiss:3478059
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891. <https://doi.org/10.3758/BRM.40.3.879>
- Roth, W. (1998). Perspective middle management: The missing link. *The TQM Magazine*, 10(1), 6-9. <https://doi.org/10.1108/09544789810197729>
- Russell, D. M., & Swanson, D. (2019). Transforming information into supply chain agility: An agility adaptation typology. *The International Journal of Logistics Management*, 30(1), 329-355. <https://doi.org/10.1108/IJLM-09-2017-0237>
- Sarstedt, M., Hair, J. F., Jr, Cheah, J. H., Becker, J. M., & Ringle, C. M. (2019). How to specify, estimate, and validate higher-order constructs in PLS-SEM. *Australasian Marketing Journal (AMJ)*, 27(3), 197-211. <https://doi.org/10.1016/j.ausmj.2019.05.003>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Shahzad, K., Bajwa, S. U., Siddiqi, A. F. I., Ahmid, F., & Raza Sultani, A. (2016). Integrating knowledge management (KM) strategies and processes to enhance organizational creativity and performance: An empirical investigation. *Journal of Modelling in Management*, 11(1), 154-179. <https://doi.org/10.1108/JM2-07-2014-0061>
- Singh, V., & Sharma, S. K. (2016). Analyzing the moderating effects of respondent type and experience on the fuel efficiency improvement in air transport using structural equation modeling. *European Transport Research Review*, 8(2), Article 12. <https://doi.org/10.1007/s12544-016-0199-3>
- Tayel, A. A. M., & Eid, A. A. A. (2023). The role of strategic intelligence in developing creativity and innovation skills in Menoufia governorate hospitals: An applied study. *Scientific Journal of Business Research*, 51(4), 49-110. https://sjsc.journals.ekb.eg/article_277810.html
- Zainal, A. Y., Yousuf, H., & Salloum, S. A. (2020). *Dimensions of agility capabilities and organizational competitiveness in sustaining*. In A.-E. Hassanien, A. T. Azar, T. Gaber, D. Oliva, & F. M. Tolba (Eds.), *Proceedings of the International Conference on Artificial Intelligence and Computer Vision* (pp. 762-772). Springer International Publishing. https://doi.org/10.1007/978-3-030-44289-7_71
- Zarafili, S. S., & Zarafili, L. S. (2023). Exploring the impact of strategic intelligence on strategic orientation: A field study on Jordanian commercial banks. *Jordan Journal of Business Administration*, 19(4). <https://doi.org/10.35516/jjba.v19i4.1433>