International Review of Management and Marketing

ISSN: 2146-4405

available at http: www.econjournals.com

International Review of Management and Marketing, 2025, 15(5), 223-234.

The Impact of Organizational DNA on Institutional Excellence: The Mediating Role of Organizational Agility

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Received: 15 March 2025 **Accepted:** 03 July 2025 **DOI:** https://doi.org/10.32479/irmm.19515

ABSTRACT

The present study examined the effect of organizational DNA in the attainment of institutional excellence (IE) in public universities in southern Jordan. Additionally, it explored the mediation of organizational agility (OA) in the relationship between organizational DNA and IE. The study sample consisted of 236 respondents, and data were analyzed using partial least squares structural equation modeling (PLS-SEM). Analysis results affirmed significant impact of organizational DNA on IE achievement, and significant impact of organizational DNA on OA. Additionally, OA had a statistically significant effect on IE. Also, OA was affirmed as mediator in the relationship between organizational DNA and IE. Other institutions aiming for excellence can benefit from this study as this study demonstrates the leveraging of organizational DNA and OA to achieve a high level of sustainable excellence

Keywords: Organizational DNA, Institutional Excellence, Organizational Agility
JEL Classification: M1

1. INTRODUCTION

Modern organizations face numerous environmental changes alongside the challenges brought by these changes (Al-Naqira, 2021), particularly the unprecedented change in customer demands, needs, and behavior (Al Khasabah et al., 2022a). Also, competitions in many sectors are fast intensifying, at local, regional, and global levels (Al Khasabah et al., 2022b), which has required organizations to constantly strive to adopt systems and work methods that enable them to achieve sustainability and institutional excellence by defining their organizational identity (Nawahda and Al-Sarayrah, 2022). Organizations, like living organisms, are subject to the same laws of nature. Hence, it is vital to explore each organization's specific organizational DNA from its inception to its end, to understand its operational nature, resolve its problems, and identify obstacles that hinder the effective implementation of its plans and strategies (Nafei, 2015). Accordingly, there are four dimensions of organizational DNA within any institution: decision-making rights, motivators, information, and organizational structure (Nafei, 2015; Mubasher and Shimaa, 2023; Majid, 2019; Nawahda and Al-Sarayrah, 2022).

In the same context, the topic of Organizational agility has received great attention from institutions that aspire to achieve institutional excellence in all their work and activities. Organizational agility facilitates institutions in modifying their plans and responding quickly and effectively to rapid environmental changes, allowing the institutions to seize opportunities, avoid risks, and provide unique and unparalleled services (Al-Kalkawi and Qasim, 2021).

The increasing focus on institutional excellence is an inevitable response to the highly competitive business environment that has prompted organizations to constantly search for tools and methods to enhance their capabilities, performance, and results (Barnawi, 2022). Institutional excellence is achieved by taking into account the decisive success factors that allow organization to form strategic plans, and recognize the opportunities, threats and key areas at all stages of organizational growth, considering that

institutional excellence is an ongoing journey based on diligent work, proper planning, a clear vision, and well-defined objectives (AlHalaseh and Ayoub, 2021). Additionally, the ability to build organizational reputation is an intangible asset that organizations strive to maintain, given its vital role in their survival and growth as a strategic resource and a fundamental pillar for organizational progress, sustainable success, and strategically outstanding performance (Al-Maria and Al-Dhafra, 2021).

Public universities in southern Jordan have been facing major challenges that may hinder their operations, including those related to financial allocations and lack of independence due to their dependence on the state budget, and those stemming from the mismatch between educational outcomes and the changing requirements of the labor market, in addition to being emerging universities that face fierce competition from other universities and being located far from population centers in the capital and major cities (Shaban, 2024). All of these factors have prompted universities in the southern region to focus on organizational DNA as one of the main variables in their organizational immune systems in the face of various organizational threats, while assuring their survival and continuity amidst the current events and developments. This helps build a good organizational reputation and achieve a highly competitive advantage, which is positively reflected in their strategic distinction.

This study accordingly looked into the impact imparted by organizational DNA on institutional excellence, Also, the mediation of organizational agility in the link between organizational DNA and institutional excellence in public universities in the south was explored.

The practical significance of this research lies in its provision of valuable information to decision-makers and stakeholders in public universities regarding the importance of organizational DNA in enhancing these universities' ability to respond to environmental changes. This is achieved by establishing a new methodology to advance the reality of these universities and keep pace with the rapid changes and developments, thereby enhancing their organizational reputation in their pursuit of institutional excellence. Academically, the research gap from the scarcity of studies that combine the three variables namely organizational DNA, organizational agility, and institutional excellence, was addressed. Additionally, this study drew its importance from its empirical attestations on the mediation of organizational agility in the relationship between organizational DNA and institutional excellence, contributing to the literature through a theoretical framework that links the aforementioned three variables.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Organizational DNA

The concept of organizational DNA has attracted significant attention from researchers, who have used it metaphorically to describe the distinctive characteristics that differentiate an organization from others and explain its activities (Nawahda and Al-Sarayrah, 2022). Soroush et al. (2014) added that organizational DNA is a metaphorical term illustrating the fundamental factors that define the organization's character and enable it to achieve outstanding performance. Meanwhile, Alshawabkeh (2021) defined organizational DNA as a set of attributes representing the organizational identity that differentiates one organization from another.

The significance of organizational DNA lies in its role in identifying the organization's strengths and weaknesses and in addressing them. Also, it helps in predicting employee performance and behavior, as well as in understanding the organization's identity, history and the nature of its operations (Al-Maria and Al-Dhafra, 2022). Accordingly, Azudin and Mansor (2018) emphasized the importance of organizational DNA in enhancing organizational resilience and improving performance levels. DNA empowers employees by involving them in identifying potentially harmful activities and challenges to the organization, as stated by Alkhafaji et al. (2023).

Various scholars including Nafei (2015), Mubasher and Shimaa (2023), Majid (2019), and Nawahda and Al-Sarayrah (2022) have presented several dimensions of organizational DNA including:

2.1.1. Decision-Making Rights

This dimension pertains to the fundamental techniques that determine who has the authority to make decisions within the organization, the effectiveness and speed of the decisions, the responsiveness to these decisions, and the time required for feedback on decision implementation (Nafei, 2015). McCreary et al. (2005) added that organizational decisions reflect the organization's identity, culture, strategy, leadership style, centralization level, and the nature of authority delegation.

2.1.2. Motivators

Incentives – both material and non-material – represent the methods used by an organization to motivate employees and drive them to deliver optimal performance (Metz, 2018). Alshawabkeh (2021) asserted that incentives are a vital component of organizational DNA, playing a crucial role in organizational advancement and success by influencing employees' enthusiasm and motivation, aligning their goals with those of the organization.

2.1.3. Information

Information serves as the primary driver of organizational activities and the key to its success, as information flows among employees at various administrative levels (Soroush et al., 2014). According to Azudin and Mansor (2018), information affects other components of organizational DNA; its absence hinders decision-makers from acting quickly on available market opportunities, potentially reducing productivity and quality.

2.1.4. Organizational structure

The organizational structure outlines the departments, divisions, and administrative levels within the organization, draws lines of authority and responsibility between them, and reflects the level of centralization, formality, communication processes, and the degree of integration in organizational processes (Hess and Ludwig, 2017).

2.2. Institutional Excellence

Institutional excellence (IE) is a continuous journey of dedicated and diligent work rooted in sound planning, a clear vision, and specific goals the organizations aspire to achieve (AlHalaseh and Ayoub, 2021). It can be defined as the capability of a given organization to outperform others and achieve cohesion and interaction with its customers, employees, and stakeholders (Assi et al., 2022).

The importance of excellence has grown for universities in particular, due to the international ranking reports that provide insights into their positions globally. These rankings allow universities to identify the gaps relative to the international standards and adopt best practices that enhance their standing both nationally and internationally (Ashqar and Al-Hindawi, 2017). Arbab and Mahdi Abaker (2018), Aldalimy et al. (2019) and Altarawneh (2023) highlighted three main dimensions of IE:

2.2.1. Leadership excellence

Leadership excellence is an essential component of organizational excellence, especially in light of the requirements of modern management, towards advanced leadership capabilities to keep pace with changes in internal and external environments, anticipate future trends, inspire creativity, and encourage employees to complete tasks in innovative ways (Bansal and Kapur, 2022). According to Hammad et al. (2022), organizational excellence requires leaders who are committed to change, supportive of creativity and excellence, and willing to set performance standards and enforce ethical work values.

2.2.2. Service excellence

Service excellence revolves around an organization's capacity to deliver superior services in terms of quality and associated features, such as precise design, timely delivery, and after-sales support, ultimately leading to customer satisfaction by addressing their needs and showing attention to their concerns (Wirtz and Menkhoff, 2021). Al-Jarbi and Al-Barghthi (2022) added that service excellence requires organizations to exhibit friendly and positive behaviors, empathy and attentiveness to customer complaints, suggestions, inquiries and needs, with a commitment to honesty, transparency and genuine problem-solving.

2.2.3. Cultural excellence

Cultural excellence reflects how an organization's values, principles and beliefs positively influence employee behaviors, promoting proactive work methods, creativity, independence, credibility and the ability to seize available opportunities (Khalil et al., 2022). According to Al-Taie and Abdul-Jabbar (2017), the characteristics of a culture of creativity include openness, collaboration, trust, authenticity, proactivity, integrity, and resilience. Basheer and Hassan (2024) asserted that a culture cannot be considered an excellence unless it consistently adds real value to both the organization and its stakeholders.

2.3. Organizational Agility

Organizational agility (OA) is a modern management approach that enables institutions to tackle internal work environment challenges by emphasizing performance simplification, flexibility, rapid responsiveness to changes and the assurance of institutional sustainability (Cegarra-Navarro and Martelo-Landroguez, 2020). OA is also the capability of the organization in identifying unforeseen changes in the environment and in promptly and effectively reacting to these changes through the use of available resources to achieve competitiveness and excellence (Žitkienė and Deksnys, 2018). OA allows a company to operate in a competitive environment, quickly adapt to market changes and deliver services or products based on customer satisfaction (Qin and Nembhard, 2010). Abdelaziz (2023) mentioned the importance of OA for contemporary organizations' success, as it enables them to sense, respond, in addition to adapting to environmental changes, facilitating the achievement of existing and future goals.

Karimi et al., (2016), Attafar et al. (2012), Alfaqih (2018), Khoshnood and Nematizadeh (2017), Panda and Rath (2016) and Nafei (2016) highlighted three main dimensions of OA:

2.3.1. Responsiveness

The organization's ability to identify changes, confront them quickly and smoothly, and proactively address them to achieve the desired goals as swiftly as possible (Kuleelung and Ussahawanitchakit, 2015; Karimi et al., 2016).

2.3.2. Flexibility

The organization's capacity to respond swiftly to changes in the work environment by focusing on avoiding threats and capitalizing on available opportunities (Attafar et al., 2012).

2.3.3. Speed

The organization's capability to execute tasks or deliver services or products within the designated time and as quickly as possible (Kuleelung and Ussahawanitchakit, 2015).

2.4. Organizational DNA and Institutional Excellence

Several scholars have discussed the impact of organizational DNA on IE, like Soroush et al. (2014) who discussed the role played by organizational DNA in influencing leadership as one of the dimensions of IE in the Youth and Sports Organization in Isfahan, Iran, and the authors found a strong impact of organizational DNA characteristics on leadership style and leader traits. In another study, Makingrilas and Col (2015) explored the relationship between organizational DNA and companies' social and environmental responsibility, which is considered one of the dimensions of the European Foundation for Quality Management (EFQM) model for IE in paper recycling companies in the United States. The authors revealed that organizational DNA dimensions affect the focus on social responsibility and that the dimensions should be integrated into core strategies. Additionally, Hussein et al. (2024) found statistically significant positive connection between organizational DNA and IE in Egyptian public banks. Appositely, Elsakaan et al. (2021) also found a strong association between organizational DNA and IE in terms of organizational culture, leadership, subordinates, and organizational structure in petroleum companies in Alexandria, Egypt. Considering the evidence provided on the link between organizational DNA and IE, the following was proposed:

H_1: There exists a statistically significant relationship between organizational DNA and institutional excellence in public universities in southern Jordan.

2.5. Organizational DNA and Organizational Agility

Various studies have discussed the association existing between organizational DNA and organizational resilience, including Mahmoud and Al-Romeedy (2019) who concluded a direct impact of genetic imprint on OA in Egypt Air. Similarly, Ghanem (2021) also observed statistically significant impact of organizational genes in terms of administrative decision-making, incentives, information systems, and organizational structure on the dimensions of OA, which include strategic sense, collective commitment and resource flexibility, in pharmaceutical companies in Palestine

Relevantly, Elsanhawy and Badway (2023) found a direct impact of organizational DNA as one of the dimensions of organizational immunity on OA and sustainability in the petroleum industry in Egypt. Gökçe and Pelit (2023) also confirmed that the presence of organizational genes as one of the dimensions of organizational immunity affects OA in five-star hotels in Turkey. In addition, Abdul Aziz Al-Mansi (2024) concluded significant impact of regulatory genes as one of the dimensions of regulatory immunity on the dimensions of OA, specifically sensing resilience, decision-making resilience, and practice resilience in commercial banks in Riyadh, Saudi Arabia. Considering the above-mentioned relationships and associations:

H_2: There exists a statistically significant relationship between organizational DNA and organizational agility in public universities in southern Jordan.

2.6. Organizational Agility and Institutional Excellence

Several studies have analyzed the relationship between OA and IE. Shaban (2024) showed a positive impact of strategic sense, resource flexibility, and technological capabilities on IE in Jordanian universities. Al-Shakarji and Al-Khayat (2024) indicated that sensing flexibility, decision flexibility and response flexibility were associated with the dimensions of leadership excellence, subordinate excellence and cultural excellence among department heads at the University of Mosul. Al-Sayed and Sondos (2024) also revealed a relationship between the dimensions of OA and IE in the National Bank of Egypt and Misr Bank. Similarly, Heydari Amin et al. (2023), in identifying the dimensions of IE through the OA approach in the education sector in Sistan and Baluchestan province, concluded that OA and IE together enabled educational management to integrate human resource strategies with organizational ones, which enhances intellectual synergy and innovation, thus supporting IE. Aldiabat (2022) also indicated a statistically significant positive relationship between OA and IE in Jordanian telecommunications companies. Similarly, Nafei (2016) also found a statistically significant effect of OA on IE in the Egyptian telecommunications sector, as it showed a strong relationship between the sense of flexibility, decision-making flexibility and practice flexibility with IE. Considering these correlations:

H_3: There exists a statistically significant relationship between organizational agility and Institutional Excellence in public universities in southern Jordan.

2.7. The Mediating Role of Organizational Agility in the Relationship between Organizational DNA and Institutional Excellence

OA refers to an approach that organizations seek to adopt to achieve rapid adaptation to renewed changes, effective response to various challenges and seize rare opportunities (Hussein, 2023). The organizational DNA, with its various dimensions such as decision-making, incentives, information and organizational structure, is a fundamental pillar of organizational success and excellence. Therefore, understanding the organization's identity, characteristics, strengths and weaknesses, compared to its counterparts, ensures its survival and sustainability, and achieves the desired IE (Nafei, 2015). Reviewing previous studies and the study variables in the literature (organizational DNA as independent variable, OA as intervening variable, and IE as dependent variable), the researcher did not find a study that discussed this relationship between the three variables on the one hand, and the relationship between organizational DNA and IE through the mediation of OA on the other hand. Clearly, a research gap existed, and so, the present study addressed it by looking into the connection between organizational DNA (independent variable), IE (dependent variable), and OA (intervening variable) in public universities in southern Jordan. Hence:

H_4: Organizational agility mediates the relationship between organizational DNA and institutional excellence in public universities in southern Jordan.

3. RESEARCH METHODOLOGY

3.1. Research Framework

Figure 1 displays the research framework that illustrates the relationship between organizational DNA (independent variable) and IE (dependent variable), with OA as mediator.

3.2. Research Design

The present study employed cross-sectional descriptive survey method. This method allows the researcher to gather, evaluate, and analyze data while testing the hypotheses without intervening in the settings of the research (Cooper and Schindler, 2014).

3.3. Population and Sample

The current study used academic and administrative employees working in southern universities as the unit of analysis, with a total of 2292 employees distributed among Mutah University (1052 employees), Tafila Technical University (542 employees), and Al-Hussein Bin Talal University (698 employees). The sample comprised 331 respondents, representing 14.44% of the study population, following the guidelines of Sekaran and Bougie (2016). To address the problem of non-response and reduce sampling error, the size of the sample was enlarged to represent 16% of the studied population (Hair et al., 2008). In total, 366 questionnaires were disseminated. However, 254 were regained, with 236 of these 254 deemed valid for analysis.

3.4. Data Collection Instrument

The employed questionnaire was structured questionnaire, consisting of four sections: Demographic Information section that provides background information about the respondents,

Organizational DNA section comprising 16 items measuring the dimensions of the independent variable (organizational DNA), IE section comprising 9 items to assess the dependent variable (IE), OA section that includes 6 items to measure the mediating variable (OA).

The study utilized a five-point Likert scale, ranging from 5 (Strongly Agree) to 1 (Strongly Disagree), allowing respondents to express their level of agreement with each statement effectively.

3.5. Variable Measurement

A total of 16 questionnaire items were adopted from Majid (2019), Ghanem (2021) and Mustafa (2023), to measure the independent variable, Organizational DNA, with its dimensions: decision-making rights (DM), Motivators (MO), information (IN) and organizational structure (OS). The dependent variable, IE, with its dimensions (Leadership Excellence (LE), Service Excellence (SE), and Culture Excellence (CE)), was measured through 9 items adapted from Al-Towaijri (2020), Alwan et al. (2023) and Basheer and Hassan (2024). Finally, the mediating variable, OA, was measured using 6 items from Qandeel (2020).

4. ANALYSIS AND RESULTS

The next step after data collection is data analysis to derive the targeted results. For descriptive statistics, that include the computation of means, standard deviations, frequencies, skewness, and kurtosis, SPSS version 25.0 was used. The Smart PLS software was also utilized to assess the study model and test the hypotheses. The following is an overview of the analysis results.

4.1. Data Screening

The primary objective of the data screening process is to ensure that the study data is normally distributed, free from outliers, and without missing values. To confirm this, the skewness and kurtosis tests were conducted. The results of this test indicated that skewness and kurtosis values are less than ±2, as shown in Table 1, indicating that the distribution of the study variables is acceptable (Singh and Sharma, 2016).

4.2. Descriptive Analysis of Study Variables

The ensuing Table 2 reveals the mean values for the dimensions of organizational DNA: decision-making scored 4.175, motivators scored 3.940, information scored 4.150 and organizational structure scored 3.900. In the same context, the mean values for IE dimensions were 4.117 for leadership excellence, 4.097 for service excellence and 4.208 for cultural excellence. The mean for OA was 4.040, indicating a strong consensus among respondents regarding the importance of these variables.

4.3. Measurement Model Assessment

This study utilized a two-stage approach, where, with the first-order structure as indicator for the second-order structure. Here, Average Variance Extracted (AVE) and Composite Reliability (CR) were extracted for the higher-order construct, as recommended by Becker et al. (2012). This approach is advisable when the mediator or dependent variable is multidimensional (Sarstedt et al., 2019), which applies to this study as IE is an internal and multidimensional construct. evaluation was made to the measurement model to assure reliability and validity of the tools employed, specifically through convergent validity,

Figure 1: Research framework

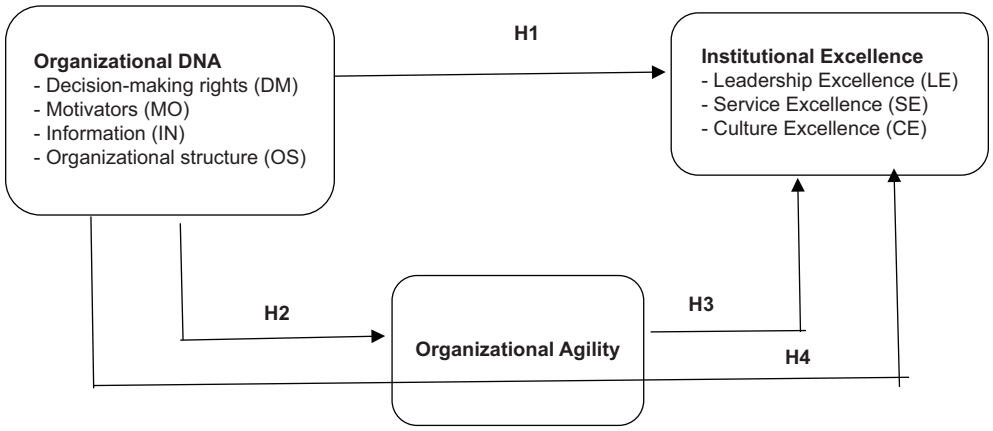


Table 1: Normality evaluation of the study variables

Constructs	Items	n	Skewness		Kurtosis	
		Statistic	Statistic	Standard error	Statistic	Standard error
Independent variable: Organizational DNA	DM	236	−0.602	0.158	−0.074	0.316
	MO	236	−0.988	0.158	1.777	0.316
	IN	236	−0.933	0.158	0.576	0.316
	OS	236	−0.871	0.158	0.866	0.316
Dependent variable: Institutional Excellence	LE	236	−0.531	0.158	−0.390	0.316
	SE	236	−0.573	0.158	0.177	0.316
	CE	236	−0.412	0.158	−0.397	0.316
Mediator variable: OA	OA	236	−0.662	0.158	0.157	0.316

discriminant validity and Cronbach's Alpha reliability evaluation (Ringle et al., 2012).

4.3.1. Convergent validity evaluation for the measurement model through confirmatory factor analysis

Convergent validity is crucial as it reveals whether measures associated with the same concept are consistent (Ringle et al., 2012). Appositely, Hair et al. (2010) recommended assessing Average Variance Extracted (AVE), Composite Reliability (CR) and outer loadings. Additionally, Cronbach's Alpha must be computed, and its threshold should not be below 0.70.

4.3.2. Confirmatory factor analysis (CFA) model for the second-order construct: Organizational DNA

Sixteen items in the CFA model were used to measure the four first-order dimensions of organizational DNA: decision-making, motivators, information and organizational structure. The CFA model, with all 16 items for organizational DNA, is represented in Figure 2, along with its factor loadings.

4.3.2.1. Reliability and convergent validity (CV) of the second-order construct, organizational DNA

The ensuing Table 3 indicates that the convergent validity for all sixteen items of the Organizational DNA construct exceeded Chin et al.'s (2008) recommended value (0.60). Additionally, the value of AVE and CR exceeded 0.50 and 0.60, respectively. Cronbach's Alpha value also surpassed 0.70 as recommended by Nunnally and Bernstein (1994). Clearly, all components were sufficiently reliable for accurately measuring their respective constructs

4.3.2.2. CFA model for the second-order construct, institutional excellence

Nine items in the CFA model were used to measure three first-order dimensions of IE: leadership excellence, service excellence and cultural excellence. The CFA model, which includes all nine items for IE, was excluded from the layout in Figure 3, which depicts the CFA model for IE along with its loadings.

4.3.2.3. Reliability and convergent validity (CV) of the second-order construct, institutional excellence

As shown in Table 4, all the 9 items representing the IE variable showed convergent validity value surpassing Chin et al.'s (2008) suggested threshold of 0.60. Additionally, the AVE and CR values were above 0.50 and 0.60, correspondingly. Cronbach's Alpha value also surpassed the 0.70 cutoff suggested by Nunnally and Bernstein (1994), clearly indicating that all components were sufficiently reliable to accurately measure their construct.

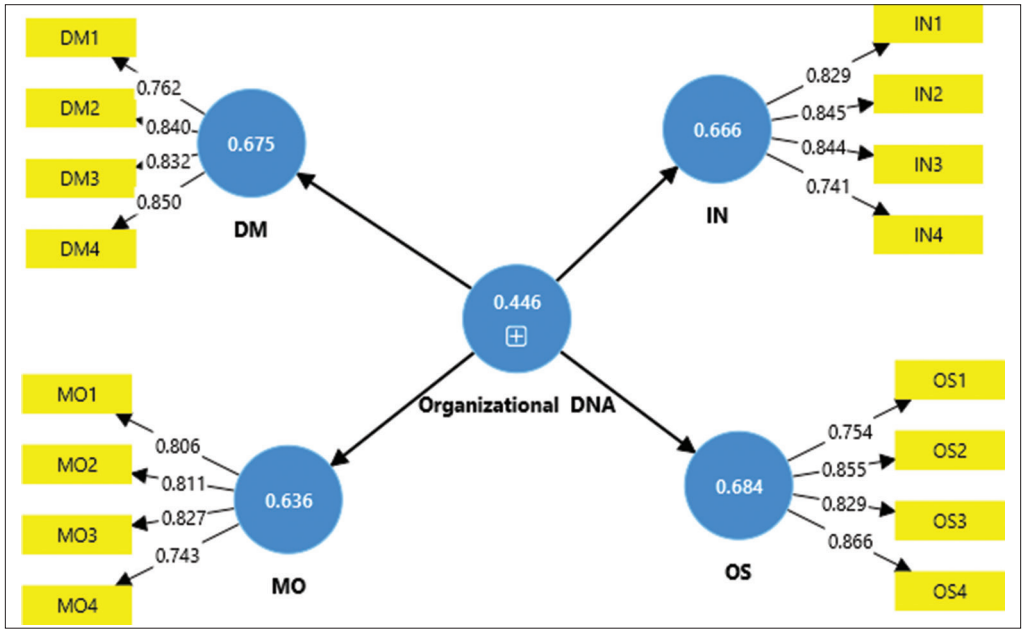
4.3.2.4. CFA model for the overall measurement model

The present study also employed CFA to assess the overall measurement model, as illustrated in Figure 4.

Table 2: Descriptive analysis of study variables

Constructs	Items	n	Minimum	Maximum	Mean	Standard deviation
Independent variable: Organizational DNA	DM	236	1.2	5.00	4.175	0.524
	MO	236	1.8	5.00	3.940	0.866
	IN	236	1.3	4.80	4.150	0.561
	OS	236	1.5	4.80	3.900	0.994
Dependent variable: Institutional Excellence (IE)	LE	236	1.3	4.80	4.117	0.575
	SE	236	1.3	4.50	4.097	0.584
	CE	236	1	5.00	4.208	0.596
Mediator variable: organizational agility (OA)	OA	236	2	5.00	4.040	0.825

Figure 2: Modified confirmatory factor analysis model for organizational DNA



4.3.2.5. Reliability and convergent validity (CV) of the overall model

Results of the convergent validity test for the entire study model, as shown in Table 5, indicate that all model items achieved loadings above the 0.60 threshold set by Chin et al. (2008). The AVE values surpassed the 0.50 threshold, and the composite reliability exceeded 0.70 as recommended by Hair et al. (2010). Additionally, Cronbach's Alpha values were >0.70, as suggested by Nunnally and Bernstein (1994), confirming that the model components are all reliably sufficient in accurately measuring each construct.

Table 3: Cronbach's alpha and convergent validity for the model for organizational DNA

Construct	Items	Factor loading ranges	AVE	Composite reliability	Cronbach's alpha
DM	4	0.762-0.850	0.675	0.892	0.839
MO	4	0.743-0.827	0.636	0.875	0.809
IN	4	0.741-0.845	0.666	0.888	0.831
OS	4	0.754-0.866	0.684	0.896	0.846

Table 4: Cronbach's alpha and convergent validity for the model for IE

Construct	Items	Factor loading ranges	AVE	Composite reliability	Cronbach's alpha
LE	3	0.794-0.873	0.719	0.884	0.803
SE	3	0.820-0.883	0.732	0.891	0.817
CE	3	0.850-0.887	0.749	0.899	0.832

4.3.3. Discriminant validity

Discriminant validity is attained when the diagonal values are all greater compared to the off-diagonal values within the exact rows and columns (Fornell and Larcker, 1981). In the correlation matrix, the diagonal values signify the AVE's square roots (Fornell and Bookstein, 1982). With this approach, each construction would be different from others, enhancing the model's reliability for accurately measuring the variables. Enhancing the model's reliability for accurately measuring the variables.

4.3.3.1. Variable correlation of the second order construct organizational DNA through the Fornell-Larcker criterion

It is evident from Table 6 that all the diagonal values of the Organizational DNA variable are larger than the off-diagonal values present within the rows and columns of the correlation matrix. Thus, discriminant validity is achieved, in accordance with the recommendations of Fornell and Bookstein (1982).

4.3.3.2. Variable correlation of the second order construct institutional excellence using the Fornell-Larcker criterion

Table 7 proves that all the diagonal values of the IE variable exceeded those of the off-diagonal values within the rows and

Figure 3: Modified confirmatory factor analysis model for IE

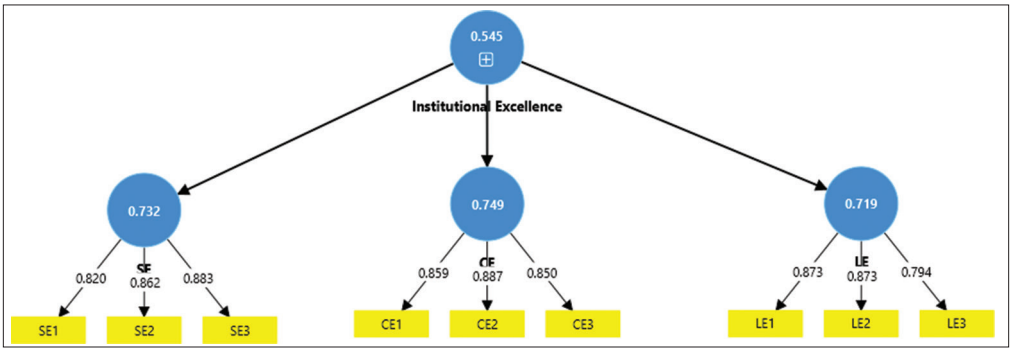
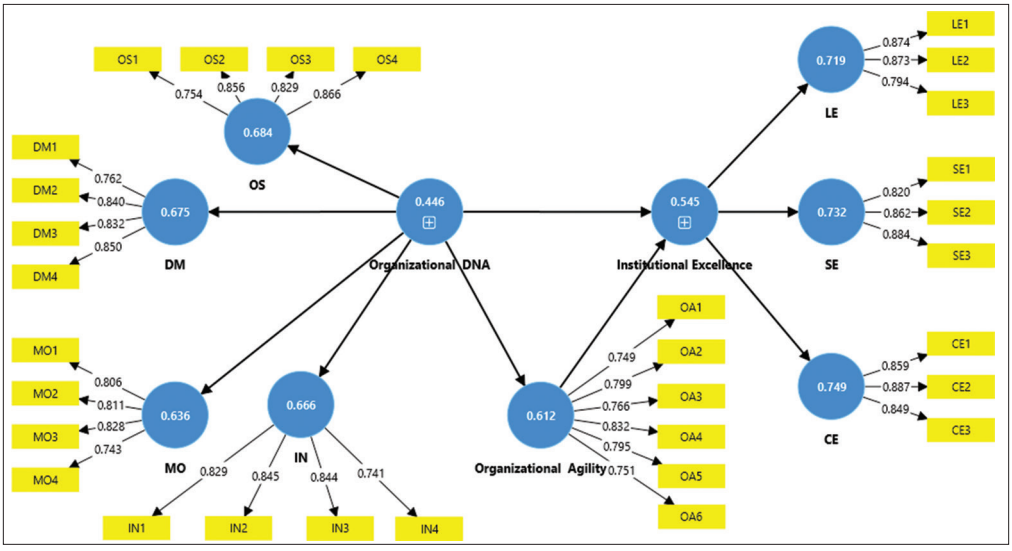


Figure 4: Modified confirmatory factor analysis model for overall measurement model (First Order, Second Order)



columns of the correlation matrix. Therefore, discriminant validity is achieved, in accordance with the recommendations of Fornell and Bookstein (1982).

4.3.3.3. Variable correlation of the overall model through the Fornell-Larcker criterion

In the Fornell and Larcker test shown in Table 8, it appears that all diagonal elements of the constructs surpassed the off-diagonal values within the rows and columns of the correlation matrix. Hence, all constructions in the study have sufficient discriminant validity.

4.4. Structural Model Assessment

The subsequent step in this analysis is to test the proposed hypotheses. To achieve this, the re-sampling method recommended by Felsenstein (1985) was employed. Direct effects were used in testing the direct hypotheses, namely H_1, H_2 and H_3, while indirect effects were used in testing the mediation hypothesis (H_4) as suggested by Hair et al. (2017) and Soto-Acosta et al. (2016). In the same context, Hair et al. (2014) suggested conducting the following tests to assess the structural model: effect size (F^2) of the exogenous variables, variance inflation factor (VIF), predictive relevance (Q^2), as well as coefficient of determination (R^2) for the endogenous variables.

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

Construct	Items	Factor loading	AVE	Composite reliability	Cronbach's alpha
Organizational DNA	DM	0.842	0.675	0.918	0.916
	MO	0.812	0.636		
	IN	0.834	0.666		
	OS	0.845	0.684		
Institutional Excellence (IE)	LE	0.808	0.719	0.915	0.895
	SE	0.821	0.732		
	CE	0.832	0.749		
Organizational Agility (OA)	OA 1	0.749	0.529	0.904	0.873
	OA 2	0.799			
	OA 3	0.766			
	OA 4	0.832			
	OA 5	0.795			
	OA 6	0.751			

Table 6: Discriminant validity for organizational DNA

Construct	DM	MO	IN	OS
DM	0.822			
MO	0.590	0.816		
IN	0.621	0.586	0.797	
OS	0.448	0.581	0.547	0.827

Table 7: Discriminant validity for IE

Construct	CE	LE	SE
CE	0.856		
LE	0.566	0.848	
SE	0.537	0.741	0.856

Table 8: Discriminant validity for the overall model

Construct	CE	DM	IN	LE	MO	OS	OA	SE
CF	0.865							
DM	0.483	0.822						
IN	0.537	0.590	0.816					
LE	0.566	0.509	0.568	0.848				
MO	0.567	0.621	0.586	0.480	0.797			
OS	0.614	0.448	0.581	0.536	0.547	0.827		
OA	0.12	0.480	0.553	0.604	0.612	0.677	0.782	
SE	0.537	0.514	0.523	0.741	0.470	0.528	0.566	0.622

It is evident from Table 9 that the predictive value R^2 for the dimension of IE was 0.595, while for OA, was 0.504, indicating that 59% of the variance in IE was elucidated by two exogenous variables: organizational DNA and OA. Approximately 50% of the variance in OA was elucidated by one exogenous variable, which is organizational DNA. The table also indicates that the R^2 value exceeded the 19% of Chin's (1998) proposed cutoff value. The effect size F^2 for the exogenous predictions was 0.376, 1.015, and 0.090 respectively, indicating large, large, and small effects, as recommended by Cohen (1988). The predictive relevance Q^2 for the IE variable was 0.513 and 0.552 for the OA variable, with both values greater than zero, reflecting the model's predictive value as confirmed by Chin (2010). Furthermore, all VIF values were <5 for all internal models, ranging between 2.015 and 2.069 (Hair et al., 2014).

4.4.1. Hypothesis testing

Table 10 contains the results of the direct hypotheses tests (H_1, H_2 and H_3). From the readings in the table, there is a statistically significant positive effect of the organizational DNA variable on IE at the following significance level: $\beta = 0.554$, $t = 8.881$, $P < 0.001$. Similarly, a statistically significant positive effect of the organizational DNA variable on OA was affirmed, at the following significance level: $\beta = 0.710$, $t = 21.984$, $P < 0.001$. Additionally, the results also indicate a statistically significant positive effect of the OA variable on IE at a significance level of $\beta = 0.271$, $t = 4.029$, $P < 0.001$. Overall, results for the direct hypothesis tests support H_1, H_2 as well as H3.

4.4.2. Testing the mediating role of organizational creativity

The current study utilized the approach from Preacher and Hayes (2008) to determine the role of OA in the association between organizational DNA and IE. Results displayed in the Table 11 show significant positive indirect effect of OA on the relationship between organizational DNA and IE at the following significance level: $\beta = 0.193$, $t = 3.929$, $P < 0.001$. Furthermore, based on Preacher and Hayes (2008), the corrected bias confidence interval (CI) did not extend to 0, clearly indicating the presence of mediation. The results also show that the lower limit (LL) is 0.098 and the upper limit (UL) is 0.292. This implies that there is a mediating effect, thus supporting hypothesis H_4.

5. DISCUSSION

The present study empirically investigated (1) the effect of organizational DNA on IE, (2) the effect of organizational DNA

Table 9: Evaluation of the structural model

Hypotheses	Path shape	F^2	R^2	Q^2	VIF
H_1	Organizational DNA - IE	0.376	0.595	0.513	2.015
H_2	Organizational DNA - OA	1.015	0.504	0.552	2.065
H_3	OA - IE	0.090			2.069

Table 10: Hypotheses testing results

Hypotheses	Path shape	Standard Beta	Standard Error	T-value	P-value	Decision
H_1	Organizational DNA - IE	0.554	0.062	8.881	0.000	Supported
H_2	Organizational DNA - OA	0.710	0.032	21.984	0.000	Supported
H_3	OA - IE	0.271	0.067	4.029	0.000	supported

Table 11: Mediation effect

Hypotheses	Relationship	Standard Beta	Standard Error	T-value	P-value	LL (2.5)	UL (97.5)	Decision
H_4	Organizational DNA -OA-IE	0.193	0.049	3.929	0.000	0.098	0.292	Supported

on OA, (3) the effect of OA on IE, and (4) the potential mediating effect of OA in the relationship between organizational DNA and IE. Using PLS techniques for analysis, the study tested four hypotheses to achieve its objectives.

The results of H_1 test showed a significant and statistically significant effect of organizational DNA on IE, which is in agreement with Soroush et al. (2014) who confirmed the effect of organizational DNA on leadership in the Isfahan Youth and Sports Organization. Similarly, Makingrilas and Col (2015) also found a direct effect of organizational DNA on IE in paper recycling companies in the United States. Equally, Hussein et al. (2024) revealed a positive association between organizational DNA dimensions and IE in public banks in Egypt, while Elsakaan et al. (2021) confirmed the same relationship in petroleum companies in Alexandria. These results can be explained by the importance of organizational DNA in public universities in the southern region, as it contributes to identifying their strengths and weaknesses, improving organizational performance and enhancing flexibility and competitiveness in a changing work environment.

H_2 test outcomes affirmed a significant and statistically significant effect of organizational DNA on OA, including its dimensions such as responsiveness, flexibility, and speed. These results are consistent with Abdul Aziz Al-Mansi (2024), Elsanhawy and Badway (2023), Ghanem (2021) and Mahmoud and Al-Romeedy (2019) who confirmed the existence of a statistically significant relationship between organizational DNA dimensions and OA. This result can be explained by the commitment of public universities in the southern region to adopt OA as an approach that helps them adapt to difficult situations, achieve continuous improvement, support the process of creativity and innovation, and improve the successful application of competitiveness principles such as quality and flexibility.

Regarding the examination of H_3; the results indicated a significant positive impact of OA on IE, which is in line with Shaban (2024), Al-Shakarji and Al-Khayat (2024), Al-Sayed and Sondos (2024), Heydari Amin et al. (2023), Adiabats (2022) and Nafei (2016), all of which highlighted the positive impact of OA in its various dimensions on IE in the institutions examined. This result can be attributed to the importance of OA as a modern approach which is one of the key criteria that organizations use to determine their strategic options for navigating the environmental uncertainties, including unknown opportunities and threats.

In relation to H_4, on OA as mediator in the relationship between organizational DNA and IE; results affirmed the mediation of OA. It represents an approach that enables organizations to adapt to rapid changes, respond swiftly and effectively tackle diverse challenges while seizing rare opportunities that arise (Hussein, 2023). OA is considered one of the fundamental pillars in adopting the dimensions of organizational DNA (decision-making, incentives, information, and organizational structure) and collectively contributes to achieving IE (Nafei, 2015).

6. CONCLUSION

This research paper was aimed at empirically investigating the direct effects of the relationships between organizational DNA and OA, and IE in universities in the southern part of Jordan. The indirect effect of OA as mediator between organizational DNA and IE was also investigated. The study employed quantitative research methodology, collecting data through a survey using the Google Forms platform. In total, 366 questionnaires were dispensed, from which, 236 were suitable for analysis.

The findings implied the need for senior management in official universities in the southern region to recognize the importance of prioritizing both organizational DNA and OA as vital sources for developing various strategies that enable organizations to effectively navigate the environmental uncertainties. Additionally, from a research perspective, this study diminishes the knowledge gap on the scarcity of research addressing the relationships among these variables.

This research paper has some limitations. First of all, this research paper utilized a cross-sectional design for data collection; thus, it would be beneficial to conduct future research using a longitudinal design to better understand the causal relationships among the study variables over time. Secondly, since this study was applied in the official university sector, it would also be appropriate to conduct further studies in other sectors, such as the financial or telecommunications sectors in Jordan. Additionally, future research could use the same study variables to conduct a comparative study between public and private universities.

REFERENCES

Abdelaziz, G.A. (2023), The role of strategic agility in achieving organizational excellence in the presence of organizational flexibility as a mediating variable in the Jordanian telecommunication companies. Jordan Journal of Business Administration, 19(3), 1123.

Abdul Aziz Al-Mansi M. (2024), The impact of organizational immunity on organizational agility: The moderating role of knowledge sharing (An applied study on Saudi commercial banks in Riyadh), Egyptian Journal of Business Studies, 48(2), 48-90.

Al Khasabah, M.A.I., Salleh, H.S., Mat, N.H.N., Zulkiffli, S.N.A. (2022a), The relationship among total quality management, operational performance and competitive advantage in the Jordanian banking sector. WSEAS Transactions on Business and Economics, 19, 599-613.

Al Khasabah, M.A.I., Salleh, H.S., Mat, N.H.N., Zulkiffli, S.N.A. (2022b), Nexus between total quality management and competitive advantage in Jordanian banking sector: The mediating effect of quality performance. Corporate Governance and Organizational Behavior Review, 6(2), 193-205.

Aldalimy, M.J.H., Al-Sharifi, A.K.H., Bannay, D.F. (2019), Strategic alignment role in achieving the organizational excellence through organizational dexterity. Journal of Southwest Jiaotong University, 54(6), 1-13.

Aldiabat, B. (2022), The mediating role of strategic intelligence in the relationship between organizational agility and organizational excellence in Jordanian telecommunications companies. Problems and Perspectives in Management, 20(4), 496.

Al-Faqih, M. A. (2018). The role of strategic agility in achieving the competitive advantage of right wing universities (in Arabic). Journal of the College of Education, University of Ibb, Yemen. Accessed online at: https://www.ibbuniv.edu.ye/uploads/files/35/2018100308312916.pdf

AlHalaseh, R.H., Ayoub, Z. (2021), Strategic flexibility mediating the impact of entrepreneurial orientation on organizational excellence. International Review of Management and Marketing, 11(6), 21.

Al-Jarbi, M.B., Al-Barghthi, W.A. (2022), Disclosure of intellectual capital and its role in improving the efficiency of financial performance: A field study on the Libyan oil and banking sectors from the perspective of external auditors. Journal of Economic Studies, 5(4), 36-57.

Al-Kalkawi, A., Qasim, Z. (2021), The Impact of the knowledge management processes in the organizational immune systems a survey study for sample of the opinions of the higher and middle administrations in the company of Asia cell Iraq-Maysan Province. Al-Qadisiyah Journal for Administrative and Economic Sciences, 23(1), 29-42.

Alkhafaji, A.J., Alhadrawi, R.H., Alkaseer, N.A. (2023), The Effect of intellectual capital in enhance organizational immunity analytical study in the general company of electric power production/middle Euphrates. TANMIAT AL-RAFIDAIN, 42, 140.

Al-Maria, R., Al-Dhafra, F. (2022), Components of organizational DNA and its reflections in enhancing organizational reputation: An applied study on the National Water Company in Asir Region. Scientific Journal of Business and Environmental Studies, 13(3), 528-575.

Al-Naqira, A. (2021). The mediating role of organizational innovation in the relationship between organizational immunity and organizational performance: An applied study on industrial companies in Sadat City. Scientific Journal of Financial and Commercial Studies and Research, 2(2), 229-275.

Al-Sayed, S.M.E., Sondos, M.E. (2024), Organizational agility and its relationship to organizational excellence: A field study. Journal of Administrative Research, 42(2), 1-43.

Al-Shakarji, R., Al-Khayat, A.A. (2024), The organizational agility of the heads of departments of the faculties of the University of Mosul and its relationship to their organizational excellence from the teachers' point of view. Dirasat Mosiliya, 17(70), 84-113.

Alshawabkeh, Z. (2021), The role of organizational DNA in enhancing the strategic balance in commercial banks in Madaba. Management Science Letters, 11(5), 1639-1650.

Al-Taie, M.H.A.A., Abdul-Jabbar, M.H. (2017), The role of organizational culture in building an effective organization. Arab Journal of Management, 37(3), 59-80.

Altarawneh, R.M. (2023), The Effect of strategic vigilance on organizational excellence the mediating role of strategic foresight. International Journal of Business and Management, 18(3), 1-52.

Al-Towaijri, H. (2020), The Organizational excellence and its role in achieving competitive advantage at Qassim University in view of Saudi Arabia's vision 2030. Dirasat: Educational Sciences, 47(2), 451-472.

Alwan, A.A., ElShereef, A.A., Abu Farha, E.A. (2023), Role of institutional excellence in crisis management by application to the sector Al-Azhar Al-Sharif in north Sinai governorate. Sinai Journal of Applied Sciences, 12(1), 129-150.

Arbab, A., Mahdi Abaker, M. (2018), Human resources management practices and organizational excellence in public orgnizations. Polish Journal of Management Studies, 18(2), 9-21.

Ashqar, A.M.A.A., Al-Hindawi, A.H. (2017), A proposed vision to achieve institutional excellence for Al-Azhar University faculties in light of the European Foundation for Quality Management (EFQM) model. Education (Al-Azhar): A Refereed Scientific Journal for Educational, Psychological and Social Research, 36(175 Part 3), 529-611.

Assi, N.A., Rostom, F.A., Alwan, H.J. (2022), The role of critical success factors in achieving organizational excellence: An analytical exploratory study of the opinions of a sample of employees at Al-Mustaqbal University College. RES Militaris, 12(2), 5354-5373.

Attafar, A., Ghandehari, M., Momeni, G. (2012), Study of required organizational base for implementation of agility strategy in organizations. Journal of Contemporary Research in Business, 3(11), 141-150.

Azudin, A., Mansor, N. (2018), Management accounting practices of SMEs: The impact of organizational DNA, business potential and operational technology. Asia Pacific Management Review, 23(3), 222-226.

Bansal, M., Kapur, S. (2022), Life skills from Bhagavad Gita: A vital enabler for leadership excellence in pandemic times and the world beyond. International Journal of Management Concepts and Philosophy, 15(1), 80-95.

Barnawi, M.B.O. (2022), Organizational excellence models failure and success factors of organizational excellence and challenges mitigation. Open Journal of Business and Management, 10(6), 2915-2938.

Basheer, N.N., Hassan, M.O. (2024), The role of organizational integrity in enhancing strategic excellence. Iraqi Journal for Administrative Sciences, 20(80), 79-103.

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.

Cegarra-Navarro, J.G., Martelo-Landroguez, S. (2020), The effect of organizational memory on organizational agility: Testing the role of counter-knowledge and knowledge application. Journal of Intellectual Capital, 21(3), 459-479.

Chin, W.W. (1998), The partial least squares approach structural equation modeling. In: Modern Methods for Business Research. United States: Lawrence Erlbaum Associates, p.295-336.

Chin, W.W. (2010), How to write up and report PLS analyses. In: Vinzi, V.E., Chin, W.W., Henseler, J., Wang, H., editors. Handbook of Partial Least Squares: Concepts, Methods and Applications. Germany: Springer, p. 655-690.

Chin, W.W., Peterson, R.A., Brown, S.P. (2008), Structural equation modelling in marketing: Some practical reminders. Journal of Marketing Theory and Practice, 16(4), 287-298.

Cohen, J. (1988), Statistical Power Analysis for the Behavioral Sciences.

2nd ed. United States: Lawrence Erlbaum.
Cooper, D.R., Schindler, P. (2014), Business Research Methods. New York: McGraw-Hill Education.
Elsakaan, R.A.E.M., Ragab, A.A., El-Gharbawy, A., Ghanem, A.N. (2021), The impact of the organizational DNA on the institutional excellence of Alexandria petroleum companies through improving organizational performance as a mediating variable. Open Access Library Journal, 8(7), 1-13.
Elsanhawy, K.E.Y., Badway, S.M. (2023), The impact of organizational DNA on corporate agility and sustainability-a field study on the Egyptian petroleum sector (oil and gas companies). Journal of Business, 11(2), 115-128.
Felsenstein, J. (1985), Confidence limits on phylogenies: An approach using the bootstrap. Evolution, 39(4), 783-791.
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.
Fornell, C., Larcker, D.F. (1981), Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50.
Ghanem, A.N.A. (2021), Regulatory Genes (DNA) and Their Impact on Organizational Creativity in the Presence of Strategic Agility as an Intervening Variable: A Field Study on Pharmaceutical Companies in Palestine (Doctoral dissertation, Al-Quds Open University). Available from: https://dspace.qou.edu/bitstream/194/2628/1/aseel_gnaim.pdf
Gökçe, F., Pelit, E. (2023), The effect of organizational DNA on organizational agility: A study on hotel enterprises. Güncel Turizm Araştırmaları Dergisi, 7, 467-485.
Hair, J.F. Jr., Hult, G.T.M., Ringle, C., Sarstedt, M. (2014), A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM), Washington, DC: SAGE Publications.
Hair, J.F., Jr, Hult, G.T.M., Ringle, C., Sarstedt, M. (2017), A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM). Washington, DC: SAGE Publications.
Hair, J.F., Jr., Black, W.C., Babin, B.J., Anderson, R.E. (2010), Multivariate Data Analysis. 7th ed. United States: Prentice Hall.
Hair, J.F., Jr., Wolfinbarger, M.F., Ortinall, D.J. (2008), Essential of Marketing Research. Boston, MA: McGraw Hill/Irwin.
Hammad, A.J., Najim, N.S., Abed, W.D. (2022), The Impact of Knowledge Management Infrastructure in Achieving Organizational Excellence an Exploratory Study of the Opinions Study of a Sample of Teachers at the University of Tikrit. World Economics and Finance Bulletin (WEFB). Available from: https://www.scholarexpress.ne
Hess, E., Ludwig, K.) 2017), The Challenge of Protecting Organizational DNA. United States: United Parcel Service, Inc.
Heydari Amin, F., Hashemiannejad, F., Sadat Naseri, N. (2023), Identification of organizational excellence dimensions with an organizational agility approach in the Department of Education of Sistine and Baluchestan Province. Iranian Evolutionary Educational Psychology Journal, 5(2), 320-331.
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.
Hussein, R.R.M., Ramadan Mohamed, R. (2024), Regulatory genes and their impact on institutional excellence: Testing the mediating role of intellectual capital: An applied study on Egyptian public commercial banks. Scientific Journal of Financial and Commercial Studies and Research, 5(1), 1167-1229.
Karimi, O., Daraei, M., Sepehr, M. (2016), The effect of transformational leadership style on components of organizational agility in Isfahan University of technology. International Research Journal of Management Sciences, 4(2), 149-155.
Khalil, S.I., Farhan, O.M., Hamad, H.A. (2022), The role of digital leadership in achieving organizational excellence an applied study at the university of Tikrit. World Economics and Finance Bulletin, 12, 85-94.
Khoshnood, N., Nematizadeh, S. (2017), Strategic agility and its impact on the competitive capabilities in Iranian private banks. International Journal of Business and Management, 12(2), 220-229.
Kuleelung, T., Ussahawanitchakit, P. (2015), Organizational agility and firm performance: Evidence from information and communication technology (ICT) businesses in Thailand. The Business Management Review, 7(1), 206.
Mahmoud, R., Al-Romeedy, B. (2019), The Mediating role of organizational support in the relationship between organizational DNA, strategic flexibility and sustainable performance: An empirical study on Egypt air. Journal of the Faculty of Tourism and Hotels-Sadat City University, 3(2), 18-41.
Majid, Z.S. (2019), The effect of organizational DNA on intellectual capital: An exploratory study on a sample of managers of the general company. Economic Sciences, 14(54), 1-148.
Makingrilas, J., Col, A.K.D.P. (2015), The Model of DNA creation of business organization toward corporate social responsibility. The International Journal of Business Management, 3(4), 186.
McCreary, D.R., Saucier, D.M., Courtenay, W.H. (2005), The drive for muscularity and masculinity: testing the associations among gender-role traits, behaviors, attitudes, and conflict. Psychology of Men Masculinity, 6(2), 83.
Metz, J.D. (2018), The Impact of Achievement Motivation, Job Satisfaction and Work-life Balance among Retail Managers. Pepperdine University.
Mubasher, S.K., Shimaa, K. (2023), A proposed model for the role of regulatory genes in the relationship between critical success factors and achieving institutional excellence. Journal of Business Research, 45(4), 502-533.
Mustafa, M.S.M. (2023), The impact of organizational genes on organizational creativity: An analysis of the mediating role of organizational trust applied to employees of pharmaceutical companies. Alexandria University Journal of Administrative Sciences, 60(1), 267-320.
Nafei, W. (2015), The role of organizational DNA in improving organizational performance: A study on the industrial companies in Egypt. International Business Research, 8(1), 117-131.
Nafei, W.A. (2016), The role of organizational agility in enhancing organizational excellence: A study on telecommunications sector in Egypt. International Journal of Business and Management, 11(4), 121-135.
Nawahda, N., Al-Sarayrah, A., (2022), Effectiveness of organizational DNA in Achieving pioneering performance through the quality of work life in Jordanian commercial banks, Journal of Positive School Psychology, 6(3), 5454.
Nawahda, N.S.M., Al-Sarayrah, A.A.M. (2022), Effectiveness of organizational DNA in achieving pioneering performance through the quality of work life in Jordanian commercial banks. Journal of Positive School Psychology, 6(3), 9784-9798.
Nunnally, J.C., Bernstein, I.H. (1994), Psychometric Theory. New York: McGraw-Hill.
Panda, S., Rath, S.K. (2016), Investigating the structural linkage between IT capability and organizational agility: A study on Indian financial enterprises. Journal of Enterprise Information Management, 29(5), 751-773.
Preacher, K.J., Hayes, A.F. (2008), Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behaviour Research Methods, 40(3), 879-891.

Qandeel, S.K.M. (2020), The Impact of Organizational Agility on Organizational Excellence: The Mediating Role of Organizational Citizenship Behavior - A Field Study in Telecommunications Companies Operating in Jordan, (Master's Thesis). Jordan: Middle East University. Available from: https://search.emarefa.net/detail/BIM-985138

Qin, R., Nembhard, D.A. (2010), Workforce agility for stochastically diffused conditions-A real options perspective. International Journal of Production Economics, 125(2), 324-334.

Ringle, C.M., Sarstedt, M., Straub, D.W. (2012), Editor's comments: A critical look at the use of PLS-SEM in "MIS Quarterly". MIS Quarterly, 36(1), 3-15.

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.

Sekaran, U., Bougie, R. (2016), Research Methods for Business: A Skill Building Approach. Hoboken, NJ: John Wiley and Sons.

Shaban, E.A. (2024), The role of strategic agility in achieving organizational excellence in Jordanian universities. Cogent Business and Management, 11(1), 2384614.

Singh, V., Sharma, S.K. (2016), Analysing the moderating effects of respondent type and experience on the fuel efficiency improvement in air transport using structural equation modelling. European Transport Research Review, 8(2), 12.

Soroush, S., Mohammadpouri, M., Poorfarahmand, B., Esfahani, D.N. (2014), Studying of organizational DNA in Esfahan Province sport and youth offices. International Journal of Human Resource Studies, 4(3), 125.

Soto-Acosta, P., Placer-Maruri, E., Perez-Gonzalez, D. (2016), A case analysis of a product lifecycle information management framework for SMEs. International Journal of Information Management, 36(2), 240–244.

Wirtz, J., Menkhoff, T. (2021), Case study: National Library Board Singapore: Delivering cost-effective service excellence through innovation and people. Services Marketing: People, Technology, Strategy. 9, 589.

Žitkienė, R., Deksnys, M. (2018), Organizational agility conceptual model. Montenegrin Journal of Economics, 14(2), 115-129.