Journal of Economics and Administrative Sciences
2024; 30(142), pp. 163-178

P-ISSN 2518-5764
E-ISSN 2227-703X

Journal of Economics and Administrative Sciences (JEAS)

Available online at http://jeasiq.uobaghdad.edu.iq
DOI: https://doi.org/10.33095/74hh6y88

The Impact Of Organizational Agility In Digital Transformation: A Field Research In The Ministry Of Higher Education And Scientific Research /Construction And Projects Department

Haider Adnan Salem*
Department of Public Administration
College of Economics and Administration
University of Baghdad
Baghdad Iraq
haider1988adnan1988@gmail.com
***Corresponding author**

Amer Fadous Atheeb
Department of Public Administration
College of Economics and Administration
University of Baghdad
Baghdad Iraq
phd.aamer2017@gmail.com

Received:5/7/2023 Accepted:13/11/2023 Published Online First: 30 /8/ 2024

Abstract:

The current research aims to clarify the impact of organizational fitness with its dimensions (sensing, decision-making, and execution/practice) as an independent variable on digital transformation with its dimensions (leadership, infrastructure, and resource mobilization) as a dependent variable in the management of construction and projects at the Ministry of Higher Education and Scientific Research. The researcher employed a descriptive-analytical approach and used various statistical tools such as SPSS V21, AMOSE, and Excel to analyze the relationship between the main research variables, answer theoretical and applied questions, examine the level of correlation and influence, and utilize statistical methods like regression coefficients, correlation coefficients, means, standard deviations, and variances. Additionally, various charts and graphs were used to illustrate the relationship between the research variables and their sub-dimensions. The sample was randomly selected from employees of the construction and projects company, with a research community size of 224 and a sample size of 142. One of the key findings is that the impact of organizational fitness and its dimensions plays a crucial role in enhancing digital transformation. Simply put, when attention is given to promoting and effectively implementing organizational fitness in management, the level of digital transformation in the organization is elevated. It's worth mentioning that some dimensions of the digital transformation variable have not been adequately implemented in management, prompting upper departments in the organization to reconsider promoting these concepts due to their importance in advancing and improving the organization's projects.

Paper type: Research paper
Keywords: organizational agility, digital transformation, Ministry of Higher Education and Scientific Research

P-ISSN 2518-5764
E-ISSN 2227-703X

1. Introduction:

Today, the issues of organizational agility and digital transformation, along with their coordination, are a significant concern for organizational leaders and managers. Many government and non-government agencies have begun implementing digital transformation strategies to achieve better results from the use of information systems and technologies. It is important to incorporate organizational agility into a comprehensive digital transformation strategy to achieve better outcomes. Since agility can help achieve efficiency, cost reduction, and time and effort savings, it is a crucial success factor for both private and public institutions, regardless of their goals or activities. The use of agile methods has been increasing not only in companies outside the IT and software development industry but also beyond the realm of application. In the existing literature on the common application of agile methods, specific topics are discussed, such as team coordination in multi-agile team environments or the challenges of implementing wide-scale agile transformations. Few articles discuss rapid wide-scale transformations. Therefore, specific research requirements are met to discuss rapid wide-scale transformations and conduct comprehensive research in the context of the current digital transformation. To achieve this, a practical look is taken at wide-scale agile transformations by capturing the interaction between challenges, adaptation, and wide-scale actions. In an ever-increasingly complex digital world, companies face many challenges such as changing customer requirements, increasing market dynamics, and the continuous emergence of new developments in information technology that must be implemented. This encourages companies to undertake institutional transformation supported by information technology. Thus, the importance of this study is highlighted, as researchers aim to define the role of organizational agility in the digital transformation process of the studied institutions.

The problem of this research lies in investigating the actual institutions and their quick response to digital changes are ideal for creating attractive technical framework conditions and achieving the highest quality at the lowest cost. Also, does the process of developing e-learning and distance learning projects and programs help deliver knowledge and science to all beneficiaries? where Digital transformation is one of the most important sources of investment for the country, especially for universities, as it benefits from electronic platforms in the scientific field, thus providing a unique field of study that can be presented virtually to students from all over the world. Digital transformation is also considered as one of the most important areas that educational institutions need to embrace wisely and apply with high quality as it helps to reduce the operating cost of the university and improve its work in various fields

Accordingly, a number of questions must be asked, as follows:

a. Can organizational agility help support the digital transformation of the Ministry of Higher Education and Research / Department of Construction and Projects?
b. What is the extent of interest, adoption, and application of organizational agility, in its dimensions, and digital transformation, in its dimensions, in the researched organization?
c. What is the degree of organizational agility in digital transformation?
d. Does organizational agility have an impact on digital transformation?
e. What is the level of awareness among officials in the researched organization of the concepts of organizational agility and digital transformation?

The research objectives are to achieve some basic goals, the most important of which are:

a. Implementing digital transformation in the Ministry of Higher Education and Scientific Research/Department of Construction and Projects and evaluating it.
b. Determining the level of organizational agility in the Ministry of Higher Education/Department of Construction and Projects.
c. Make a plan to implement the stages of digital transformation.
d. Revealing the correlation and influence between the two variables of the study.
e. Providing intellectual contribution and cognitive enrichment in dealing with the variables of the study.

P-ISSN 2518-5764
E-ISSN 2227-703X

1.1. Literature review:

There are many studies on: organizational agility:

Al-Masry (2016) meant that the purpose of the research was to determine the level of organizational agility in secondary schools in Gaza Province from the perspective of managers by using a descriptive analysis method. It concludes by presenting a proposed strategic study to increase the level of organizational agility in secondary schools.

Ahmed (2016) determined the aim was to develop a proposed vision to improve the administrative performance in the colleges of Jazan University in light of the entrance to organizational agility by adopting the descriptive analytical approach using the questionnaire form and applied to a sample of (240) members of the teaching staff and their equivalents in seven colleges from Jazan University and the most important results The degree of organizational agility was medium in the faculties of Jazan University, where there are statistically significant differences between the averages of the sample members in the axes of organizational agility as a whole due to the variable (college) in favor of the practical colleges in general, and due to the variable (gender) in favor of the male sample.

Al Hadid, (2016) diagnosed the need to discover the impact of organizational agility on the performance of the organization by using the questionnaire form as a tool for data collection and adopting the descriptive analytical approach on a sample consisting of 161 senior and middle leaders in information technology organizations in Jordan using the questionnaire. The most important results were that there was a relationship between organizational agility and performance that had a positive impact, especially in an environment of uncertainty.

Al-Nashili, (2020) diagnosed the reality of the relationship between the variables of organizational agility and organizational commitment for a sample of 1409 individuals working in the Paints and Chemical Industries Company (Pachin). The overall dimension of organizational agility" and the "organizational commitment dimension", that is, the higher the organizational flexibility factor, the greater the employee's sense of organizational commitment towards the studied organization and there is a direct, statistically significant relationship between the dimensions of organizational agility (perceived agility, agility in decision-making, and practical agility) and organizational commitment, indicating that the more the organization has the characteristics of organizational flexibility, the greater the employee's sense of the organization. Strong organizational commitment in the organizations studied.

There are many studies on: digital transformation:

Zhou (2019) used to analyze the competitive advantage that digital transformation can bring to work and provide recommendations for companies that are motivated or are in the early stages of transformation. The research methodology is a theoretical study that concludes that companies from diverse backgrounds have demonstrated that digital transformation has enabled them to gain and significantly expand their competitive advantage, ultimately driving them to a higher market position, but digital transformation Implementation does not guarantee success. And improper transformation can also lead to failure. Only a company that understands exactly what customers really want and market trends can transform its business in the right direction. In the future, digital transformation will become more important and necessary, because the consciousness of convenience and efficiency has firmly occupied the mentality of today's consumers.

Mitroulis and Fotis Kitsios (2019) measured the impact of a digital transformation strategy model including factors influencing the decision. theoretical study utilizing existing digital transformation literature. The strategy for digital transformation remains unanswered. So far, more research is needed to analyze the main elements of a digital transformation strategy and their overall impact on digital transformation.

P-ISSN 2518-5764
E-ISSN 2227-703X

Al-Ghobairi and Muhammad (2020) identified of analyzed the reality of digital transformation in the Kingdom of Saudi Arabia. The extent to which this transformation will be used , development, modernization and continuous improvement of the Kingdom will determine the level of progress in the digital transformation process from 2011-2017. The research method is analytical research. The main finding is that from 2011 to 2017 (representing the period of the study variable time series), the overall growth rate of digital transformation in the Kingdom of Saudi Arabia is 5% per year, and according to the global report, the Kingdom is included in it. The 2017 Communications Index is the third country in the region to support digital transformation.

Al-Rawashdeh,(2022)) determined the impact of studying the concept, components importance of the use of digital management in business organizations, moreover, to highlight its realities and its main challenges in Arab business organizations and to highlight his adoption of descriptive The analytical approach develops a model for Arab business organizations and concludes that digital transformation lacks a comprehensive understanding of its nature and impact. In summary, the framework of digital transformation consists of eight basic building blocks. A digital transformation framework is a process in which digital technologies cause disruption and lead organizations to respond strategically, seeking to change how value is delivered while addressing structural changes and framework barriers.

2.Material and Methods:

To understand the link between organizational agility and digital transformation, the researchers used descriptive analysis methods that most researchers typically use to understand various social phenomena. The method allows for realistic analysis of phenomena, using collected data and information to understand facts, extract results and identify factors affecting phenomena to find solutions.

2.1 The hypothetical diagram below illustrates the correlation between the variable (organizational agility) and the variable (digital transformation) as follows:

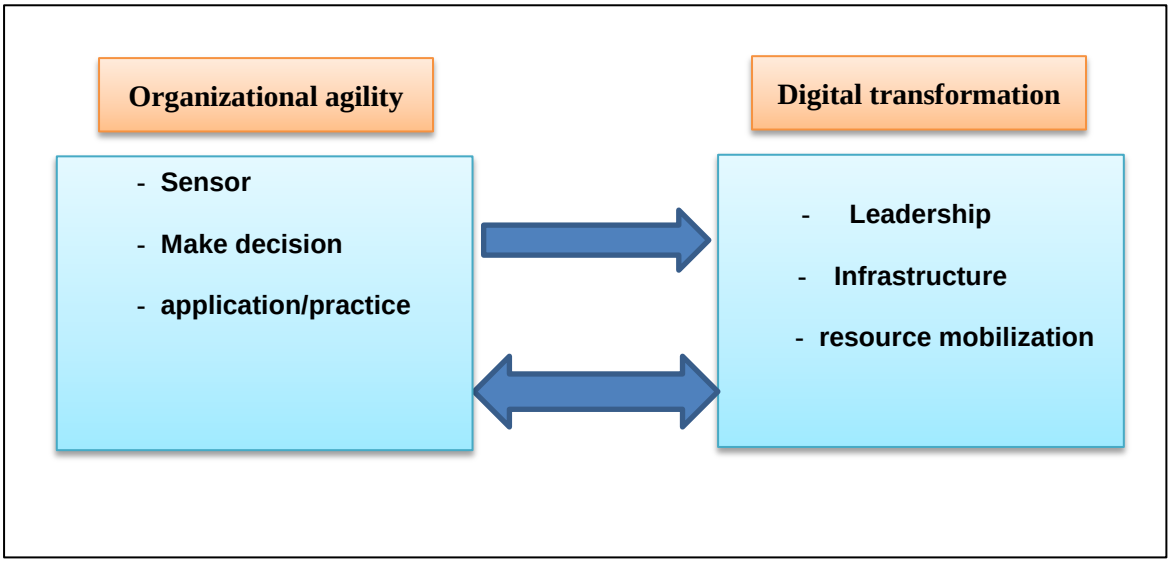

Figure 1: The hypothetical scheme of the research

P-ISSN 2518-5764
E-ISSN 2227-703X

2.2 The research hypotheses:

To achieve the research requirements, and for the purpose of answering the questions raised in the research question and testing its hypotheses, this study relied on the following hypothesis: There is a significant influence relationship for organizational agility in digital transformation

The following sub-hypotheses branch out from them:

A. There is a significant influence for sensing with digital transformation and its dimensions.

B. There is a significant influence for decision-making with digital transformation and its dimensions.

C. There is a significant influence for application/practice with digital transformation and its dimensions

2.3 The research sample and population:

Using the intentional sampling method, samples were drawn from the research group represented by the middle and high-level managers of the various units of the Construction and Project Department of the Ministry of Higher Education, as well as the leaders, directors, and leading cadres of each unit, and scientific investigation was conducted. Their number was shown to be (224) and their non-random (intentional) sample was drawn from 142 people.

2.4 The concept of organizational agility :

The concept of agility has recently been introduced as a new paradigm for managing environmental pressures and competitive factors and responding to diverse customer needs. Therefore, agility is one of the most important elements to help contemporary organizations survive in today's unstable and volatile business environment, consisting of five components (responsiveness, capability, flexibility, speed, market understanding (Tooranloo and Saghafi, 2019) Considerations Building organizational agility in response to changing environmental conditions is a way of managing unexpected changes and risks faced by the organization, and also means the ability to continuously and appropriately adapt to the strategic direction of the core business in a timely manner (Ugurl et al,2019). It is also defined as the process of achieving market-expected changes through collaboration between organizations (Kale et al., 2019), a process driven by the integration of internal and external human responses using strategic vision and insights method resource capabilities and information technology capabilities to achieve sustained organizational performance (Arokodare et al., 2019), on the other hand, it is the use of organizational the process of knowledge Current skills to survive locally and across borders in a thriving market (Gerald et al., 2020). It expresses the organization’s ability to respond quickly to changing environmental conditions and identifies the organization’s operational flexibility and fluctuations in the business environment, ensuring continuity of performance by enabling organizations to recognize and successfully adapt to threats by enabling them to ensure and ensure that they have a plan to anticipate new opportunities (Shams et al., 2021) and define them The ability for organizations to identify opportunities and threats in the business environment and respond quickly by reorganizing resources, processes, and strategies (Ogunleye et al., 2021) and the onset of organizational agility to respond quickly to change and uncertainty. In organizations In environments that require efforts to overcome obstacles or to acquire and win opportunities (Noha et al.,2022), organizational agility is also defined as the ability of an organization to achieve its goals by developing products and extending the knowledge of its human resources, which contribute to the development of organizations and their development in a rapidly changing environment has a positive impact (Al-Khaldi,2022), from an applied point of view, it is a working model that leads to the use of organizational skills to keep up with meeting customer needs, keeping up with Changes that introduce new requirements and improve organizational job performance (Yusuf et al., 2023), Researcher define organizational agility as the ability of management to identify changes in internal and external environments and respond to various emergencies at the right time and place, that is, to remain vigilant against changes, thereby satisfying customers. And continue to survive.

P-ISSN 2518-5764
E-ISSN 2227-703X

2.4.1 Dimensions of organizational agility:

2.4.1.1 Sensing Agility:

Perceptual agility focuses on increased awareness of early cognition, awareness and interest in communicating with the external environment. This agility is achieved through a combination of internal engagement strategies, external orientation, levels of awareness, and focus on investigating, capturing, and controlling events in an ever-changing environment, such as: Competitor movements, customer preferences, and modern technology. (Yu, 2018) as perception is one of the priorities of organizational agility capabilities One, this is due to changes in the environment and technology that force organizations to actively engage at the right time and place. From the perspective of the organization to invest in its interaction skills, it also depends on the existence of opportunities in the market environment and the ability of the organization to invest in these opportunities (Kay and Abak, 2020) The competitive advantage is self-evident and is evident from the technological developments that are taking place to customers' needs and requirements cloud and keep them in constant flux, requiring organizations to respond to these changes continuously and in a timely manner (BICER, 2021).

2.4.1.2 Decision Making Agility :

Decisions are considered one of the most prominent human activities, administratively or organizationally. Indeed, a distinguished writer, thinker and administrative researcher, such as Herbert Simon, considered decisions as the principal activity of the manager. He said that management is nothing but decision-making (Saputra, 2012) and due to its importance, there are those who define it as the ability of the organization to generate the required information necessary for making administrative decisions in a turbulent environment (zain et al,2005) and expresses the agility of decision-making in the ability To collect, structure and evaluate the required information from various sources to interpret the effects of events without delay, while identifying opportunities and threats based on interpreting events, developing action plans and directing how to reconfigure resources and create new competitive procedures (Park, 2011) is the ability to collect, accumulate, structure and evaluate relevant information from a variety of sources to interpret the effects of special events on business without delay, and to identify opportunities and threats based on the interpretation of events, and to develop plans The work facing how to reconfigure resources and make new competitive procedures.

2.4.1.3 Application / practice:

Practical agility refers to the ability to dynamically and fundamentally reallocate organizational resources, restructure relationships according to realistic plans, change operations, and introduce new products and services and pricing models to the market in a timely manner (Park, 2011). so from the perspective of (Layer et al, 2007), application and practice agility means efficiently executing tasks and processes to adapt to changes in the shortest possible time, the speed of change in production, in addition to the speed with which new products can be brought to market, the speed and on-time delivery of products is also important. This dimension is related to responsiveness, which refers to a quick and appropriate response to changes in the environment, and information systems play a vital role here, helping organizations respond quickly by providing accurate and sufficient information (Dongback and Ariel, 2008). The answer here is to contain change. Research has shown that there is a link between response and perception. Therefore, the response must match the perception. Failure to identify opportunities and threats effectively limits an organization's ability to take appropriate action to seize opportunities and counter threats. Compatibility between perception and response helps organizations make the best use of their organizational resources (Trinh et al., 2012). Organizations with high perceived ability but low responsiveness will fail to take advantage of opportunities to improve performance, while organizations with high responsiveness but low perceived ability waste resources (Trinh et al., 2012).

P-ISSN 2518-5764
E-ISSN 2227-703X

2.5 The concept of digital transformation:

Due to the importance of technological development to organizational change, the term digital transformation has received widespread attention from relevant managers, experts, and consultants in recent years. It refers to the use of digital technology to create value and change the ways and means of organizations. Business model, as it aims to change the fundamentals and fundamentals of business within an organization, Innovation of new products and their strategies (Berghaus, 2018), as the proliferation of digital technologies stimulates organizational change, enabling organizations to take full advantage of they. Leading to new use cases and digital technologies and the operations performed by the organization have fundamental changes within the organization and have an extraordinary impact on strategy and organizational structure (Ebert and Duarte, 2018). (Vial, 2019) states that the concept of digital transformation is A process aimed at improving businesses and institutions to make significant changes to their character through the combination of information, computing and communication technologies. Digital transformation is a process that involves the use of various digital technologies to transform the efficiency and effectiveness of an organization's operations so that they can help transform the way business is done by converting all types of information (text, audio, video, video, etc.) This process of change necessitates an understanding of the mechanisms of digital transformation in order to understand what should be done within an organization (Reis et al., 2020) and defined by (Bettinger). As "digital technology, computer technology and modern management science skills and Experience (Alnuaimi,2022)

2.5.1 Dimensions of digital transformation:

2.5.1.1 Leadership:

Some professional literature defines digital leadership as a basic skill that managers must master in order to carry out digital transformation (Zeike et al, 2019). Digital leadership plays an important role in digital transformation and is one of the key factors for digital transformation success (Kane et al., 2019). Digital leadership is a basic skill that managers must possess to carry out digital transformation. Through digital leadership, business leaders can develop a clear and convincing perspective on digitalization and project delivery (Saputra, 2012). multidisciplinary teams (Digital and Non-Digital Skills) enable digital transformation of organizations (Benitezm et al., 2022) International Society for Technology in education (ISTE) defines digital leadership as the “professional practice,” the ability to “lead by leadership Vision” , 'Digital Learning Culture', 'Digital Citizenship' and 'System Improvement' (AlAjmi et al., 2022) digital leaders need managerial skills such as digital competency skills in workflow design, business strategy training, and human resource investment (Olivia et al,2020) Digital leadership is characterized by the use of an organization’s digital resources to achieve organizational goals and objectives. digital leadership can occur at two levels: individual and Leadership can happen at both the individual and organizational levels. Digital transformation is critical to supporting any business’s digital transformation journey. Effective digital leadership can help organizations creating better work processes and opportunities to implement new processes.

2.5.1.2 Infrastructure:

Infrastructure is the foundation that supports the organization's systems in the field of data processing. The digital transformation infrastructure consists of physical resources and software that support data flow, storage, processing, and analysis. As infrastructure, all hardware, software, networks, etc. refer to development, testing, deployment, monitoring and control of the facilities required for information technology services. The provision of the necessary infrastructure in terms of technology, communication networks, information transfer and related requirements helps to facilitate various government tasks (Abdulquadri, 2019). Digital infrastructure supports the development, provision, use and exchange of digital systems (products and services).

P-ISSN 2518-5764
E-ISSN 2227-703X

These include fixed and wireless communication networks, satellite communications, postal infrastructure, digital terrestrial broadcasting, data centers, communication centers and exchange points for digital and smart internet...In this pillar, infrastructure is also delivered through affordable digital devices and platforms (Rassoo, 2019) Affordable, accessible and reliable infrastructure is the foundation of comprehensive digital transformation. Infrastructure is the basic building block of the surrounding environment or container that houses all other activities related to value creation. Infrastructure includes organizational structure and control systems as well as corporate culture. While top management can influence the design of these aspects of the organization, top management must be considered part of the structure. Organizational infrastructure top management, under strong leadership, can shape the organization's infrastructure by undertaking all other activities related to value creation (Al-Abadi et al, 2012).

2.5.13 Resource mobilization:

It is important to develop a roadmap for mobilizing resources to implement digital transformation; that is, there must be a strong link between the institutional mandate, services provided, mechanisms used, channels available and corresponding budgets. The roadmap must include short-, medium- and long-term projects to align with the digital transformation vision. It is also good practice to start with relatively easy-to-complete projects whose progress and achievements encourage public participation and support in the transformation process (Hamedi and Azimi, 2013) and involve both tangible and intangible resources. Rather than organizational ownership of resources in all senses, such as human and financial resources, are among the most important resources of an organization and contribute to the achievement of the organization's goals. (Al-Taie and Al-Abadi, 2014) mentioned that individuals have always been, and still are, the focus of organizations, but in today's knowledge-based industries, the strategic importance of individuals is increasing. The success of an organization largely depends on the knowledge, skills and abilities of its employees. Especially when they help build a set of core competencies that differentiate an organization from its competitors, when people's talents are valuable, rare, and hard to imitate, or when an organization can (usually) have the resources to achieve organizational success.

2.6 The analysis and interpretation of indicators for the variable of organizational agility.

2.6.1 Analysis of the dimensions of organizational agility variable.

Table 1 shows the statistical analyzes through (arithmetical means, coefficients of variation, standard deviations, as well as the arrangement based on the coefficients of difference) to the dimensions of the organizational agility variable, with its three dimensions as follows:

Table 1: Analysis of the dimensions of the organizational agility variable

The dimension	Arithmetic mean	Standard deviation	The coefficient of difference	The arrangement
Sensor	3.368	0.710	21.10%	2
Make decision	3.435	0.723	21.04%	1
application/practice	3.351	0.816	24.34%	3
organizational agility variable	3.385	0.651	19.25%	

P-ISSN 2518-5764
E-ISSN 2227-703X

It is clear from the above that the dimension (decision-making) came with an arithmetic mean 3.435, which indicated a high availability in the researched institution, and that the standard deviation was 0.723, meaning that the sample's visions converged on it, While the coefficient of difference was 21.04%, which indicated that it was in the first order. The dimension (sensing) came with an arithmetic mean (3.368), which indicated a high availability in the researched institution, and that the standard deviation was (0.710), meaning that the sample's visions were close to it. While the coefficient of difference was 21.10%, which indicated that it was in the second order. The dimension (application/practice) came with an arithmetic mean (3.351), which indicated a high availability in the researched institution, and that the standard deviation was 0.816, meaning that the sample's visions converged on it, while the coefficient of difference was 24.34%, which indicated that it was in the third order.

2.6.2 Analyzing the dimensions of the digital transformation variable:

Table 2 shows the statistical analyzes through arithmetical means, coefficients of variation, standard deviations, and the arrangement based on the coefficients of difference to the dimensions of the digital transformation variable, which was relied on three dimensions as follows:

Table 2: The analysis of the dimensions the digital transformation variable

The dimension	Arithmetic mean	The standard deviation	The coefficient of difference	The arrangement
Leadership	3.081	0.876	28.43%	3
Infrastructure	3.067	0.789	25.74%	1
resource mobilization	3.111	0.864	27.78%	2
The digital transformation variable	3.086	0.738	23.91%	

It is clear from the above: The dimension (infrastructure) came with an arithmetic mean of 3.067, which indicated a high availability in the researched institution, and that the standard deviation was 0.789, meaning that the sample's visions converged on it, while the coefficient of difference was 25.74%, which indicated that it was in the first order .The dimension (mobilization of resources) came with an arithmetic mean 3.111, which indicated a high availability in the researched institution, and that the standard deviation was (0.864), meaning that the sample's visions converged on it, while the coefficient of difference was 27.78%, which indicated that it was in the second order .The dimension (leadership) came with an arithmetic mean of 3.081, which indicated a high availability in the researched institution, and that the standard deviation was 0.876, meaning that the sample's visions converged on it, while the coefficient of difference was 28.43%, which indicated that it was in the third order.

2.63 Analyze the effect relationships between the research variables (organizational agility and digital transformation)

This paragraph is devoted to identifying the testing of main hypothesis, which explains the influence exerted by the independent variable (the organizational agility) and its three sub-dimensions, on the dependent variable (digital transformation), as it states: (There is a significant effect of the organizational agility in the digital transformation). In the context of the sub-effects between these two variables and their dimensions, four sub-hypotheses emerged, as follows:

P-ISSN 2518-5764
E-ISSN 2227-703X

2.63.1 There is a significant influence relationship for organizational agility in digital transformation

It appears in Table 3 that the constant coefficient of regression is 0.434, which is the lowest amount reached by digital transformation, while the marginal slope of regression is 0.784, which is a positive value, meaning that the effect is direct for organizational agility in digital transformation, and the (t) test for marginal inclination It is significant (0.000) > (0.05), while the coefficient of determination is 0.479, meaning that (48%) is the value explained by the organizational agility of the variation in digital transformation, and the percentage (52%) is the remainder due to factors that have not been studied before The researcher, while the test value (F) is equal to 128.536 and significant (0.000) > (0.05), which indicates that there is an effect of organizational agility in digital transformation

Table 3: Impact indicators for organizational agility in digital transformation

constant coefficient	marginal tendency	t-test	Moral	The coefficient of determination	F test	Moral
0.434	0.784	11.337	0.000	0.479	128.536	0.000

From the above, the researcher infers to accept the hypothesis that states (there is a significant influence relationship for organizational agility in digital transformation)

2.63.2 Testing the first sub-hypothesis: There is a significant influence relationship between sensing and digital transformation in all its dimensions

It appears in Table 4 that the constant coefficient of regression is 1.165, which is the minimum amount reached by digital transformation, while the marginal slope of the regression is 0.570, which is a positive value, meaning that the effect is directly related to sensing in digital transformation, and the (t) test for the marginal slope is Significant (0.000) > (0.05), and the coefficient of determination is 0.302, meaning that the percentage (30%) is the value explained by sensing the variation in digital transformation, and the percentage (70%) is the remainder and is due to factors that were not studied by the researcher. The value of the test (F) is equal to 60.455 and is significant (0.000) > (0.05), which indicates that there is an effect of sensing in digital transformation.

Table 4: Impact indicators for sensing in digital transformation

constant coefficient	marginal tendency	t-test	Moral	The coefficient of determination	F test	Moral
1.165	0.570	7.775	0.000	0.302	60.455	0.000

From the above, the researcher infers to accept the hypothesis that states (there is a significant influence relationship between sensing and digital transformation in its dimensions)

2.633 Testing the second sub-hypothesis: There is a significant influence relationship between decision-making and digital transformation in all its dimensions

It appears in Table 5 that the constant coefficient of the regression is 1.472, which is the lowest amount reached by digital transformation, while the marginal slope of the regression is 0.470, which is a positive value, meaning that the effect is directly related to decision-making in digital transformation, and the (t) test for the marginal slope It is significant (0.000) > (0.05), and the coefficient of determination is 0.212, meaning that the percentage (21%) is the value explained by decision-making for the variance in digital transformation, and the percentage (79%) is the remainder and is due to factors that have not been studied before. Researcher: The value of the test (F) is equal to 37.619 and has a significance of (0.000) > (0.05), which indicates that there is an effect of decision-making in digital transformation.

P-ISSN 2518-5764
E-ISSN 2227-703X

Table 5: Impact indicators for sensing in digital transformation

constant coefficient	marginal tendency	t-test	Moral	The coefficient of determination	F test	Moral
1.472	0.470	6.133	0.000	0.212	37.619	0.000

From the above, the researcher infers to accept the hypothesis that states (there is a significant influence relationship between decision-making and digital transformation in all its dimensions)

2.63.4 Testing the third sub-hypothesis: There is a significant influence relationship between application/practice and digital transformation in all its dimensions

It appears in Table 6 that the constant coefficient of the regression is 0.746, which is the smallest amount reached by digital transformation, while the marginal slope of the regression is 0.698, which is a positive value, meaning that the effect is directly related to the application/practice in digital transformation, and the (t) test for the slope The marginal limit is significant (0.000) > (0.05), while the coefficient of determination is 0.596, meaning that the percentage (60%) is the value explained by the application/practice of the variance in digital transformation, and the percentage (40%) is the remainder and is due to factors that were not studied. By the researcher, the value of the test (F) is equal to 206.196 and has a significance of (0.000) > (0.05), which indicates that there is an effect of application/practice in digital transformation.

Table 6: Impact indicators for sensing in digital transformation

constant coefficient	marginal tendency	t-test	Moral	The coefficient of determination	F test	Moral
0.746	0.698	14.360	0.000	0.596	206.196	0.000

From the above, the researcher infers to accept the hypothesis that states (there is a significant influence relationship between decision-making and digital transformation in all its dimensions)

3.Discussion of results:

1.The dimension (decision-making) came with an arithmetic mean (3.435), which indicated a high availability in the researched institution, and that the standard deviation was 0.723, meaning that the sample's visions converged on it, while the coefficient of difference was (21.04%), which indicated that it was in the first order.

2.The dimension (sensing) came with an arithmetic mean (3.368), which indicated a high availability in the researched institution, and that the standard deviation was (0.710), meaning that the sample's visions were close to it, while the coefficient of difference was (21.10%), which indicated that it was in the second order.

3.The dimension (application/practice) came with an arithmetic mean (3.351), which indicated a high availability in the researched institution, and that the standard deviation was (0.816), meaning that the sample's visions converged on it, while the coefficient of difference was (24.34%), which indicated that it was in order. the third.

4.The dimension (infrastructure) came with an arithmetic mean of (3.067), which indicated a high availability in the researched institution, and that the standard deviation was (0.789), meaning that the sample's visions converged on it, while the coefficient of difference was (25.74%), which indicated that it was in the first order. .

5.The dimension (mobilization of resources) came with an arithmetic mean (3.111), which indicated a high availability in the researched institution, and that the standard deviation was (0.864), meaning that the sample's visions converged on it, while the coefficient of difference was (27.78%), which indicated that it was in the second order.

P-ISSN 2518-5764
E-ISSN 2227-703X

6.The dimension (leadership) came with an arithmetic mean of (3.081), which indicated a high availability in the researched institution, and that the standard deviation was (0.876), meaning that the sample's visions converged on it, while the coefficient of difference was (28.43%), which indicated that it was in the third order.

4.Conclusions:

1.The department appears to be preparing feasibility studies for future projects. It is considered important to conduct a feasibility study before a project is launched as the financial, economic and technical aspects of the proposed project will be assessed.
2.Apparently, the department has an effective database that helps it make good decisions in the Department of Higher Education projects. It has an active database and a comprehensive collection of reliable data related to future projects. This enhances their ability to make informed, accurate decisions.
3.The department appears to be free of bias and says it treats all parties involved fairly. It makes strategic decisions based on facts and evidence rather than personal preferences or narrow interests.
4.The results show that the department avoids prejudice against specific parties, and the transparency and credibility of the work have been improved. This allows employees and other partners to see that decisions are made based on unbiased and objective criteria and increases trust in the department.
5.The department appears to be working hard to improve the quality of digital services provided by the Operations and Projects Division of the Ministry of Higher Education.
6.The sector appears to be struggling to understand the needs and expectations of users of digital services. It follows best interface design practices to provide users with a smooth and comfortable user experience.
7.The ministry strives to improve the functionality and performance of digital services. It analyzes existing operations and implements technological improvements and updates to achieve better performance and speed up operations.
8.The results show that the sector allows the use of Internet companies and mobile phone companies and expands the possibility of obtaining the services provided. It allows beneficiaries to use online services and mobile applications to access information and resources and communicate easily with the department.
9.It was found that by providing services through the Internet and mobile phones, the sector enables beneficiaries to access services at any time and at any convenient location. This allows them to access services easily and flexibly without having to physically travel to an administrative office.
10. The sector appears to have a clear strategic vision to achieve digital transformation. And there is a long-term plan aimed at implementing medium- and long-term projects to realize this vision.
11. The results demonstrate the sector's commitment to medium- and long-term projects, with a strong focus on providing the financial, human and technical resources needed to implement the digital transformation. These projects require significant investment and ongoing collaboration with other companies and institutions.
12. It is clear that in the Department of Construction and Projects of the Ministry of Higher Education and Scientific Research, the "decision-making" dimension is more widely applied, while the "application/practical" dimension is the least involved of the "organizational" dimensions. Flexibility' variable.
13. It turns out that not all dimensions of the “Digital Transformation” variable are being implemented to the required degree across the sector, requiring senior management to consider growing interest in these concepts as they are critical to advancing and increasing the importance of digital transformation. Check the level of the items contained in it.

P-ISSN 2518-5764
E-ISSN 2227-703X

14. Clearly, the organizational agility variable and its dimensions alone affect the digital transformation variable, and the effect is direct, i.e. H. By increasing the interest in and adoption of organizational agility and its dimensions in the sector, the degree of digital transformation in the sector will also increase.

Authors Declaration:
Conflicts of Interest: None
-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, Which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.
- Ethical Clearance: The Research Was Approved By The Local Ethical Committee in The University.

References:
1. Abdulquadri, A. and Mogaji, E. (2021). Digital transformation in financial services provision: A Nigerian perspective to the adoption of Chabot. Journal of Enterprising Communities: People and Places in the Global Economy. https://doi.org/10.1108/JEC-06-2020-0126
2. Ahmed. (2016). Improving the administrative performance of the faculties of Jazan University in light of the organizational agility approach, Journal of Educational Administration, Vol. 3, No. 8, pp. 15-116.
3. Akkaya, B., and Tabak, A. (2020). The link between organizational agility and leadership: A research in science parks. Academy of Strategic Management Journal, Vol. 19, No. 1, pp. 1-17.
4. Al Hadid, ANAS. (2016). The effects of organization agility on organization performance" International Review of Management and Business Research, Applied Science Private University, Amman, Jordan, Vol. 5, No. 1, pp. 273.
5. Al Ajmi, M. K. (2022). The impact of digital leadership on teachers' technology integration during the COVID-19 pandemic in Kuwait. International Journal of Educational Research, Vol.112, No. 101928,pp.5
6. Al-Ghobairi, Muhammad Ahmed and Muhammad, Abd al-Rahman Hassan .(2020). The reality of the digital transformation of the Kingdom of Saudi Arabia," an analytical study, research published in the Journal of Administrative and Financial Sciences, Vol.4, No. 3, pp. 8-31.
7. Alhadid, Anas Y. and Abu-Rumman, As'ad .(2015). Effective Determinations on Organization Agility Practices: Analytical study on Information Technology Organization in Jordan", In (International Review of Management and Business Research), Vol.4, No. 1, pp.34.
8. Al-Masry, Marwan Walid.(2016). A proposed strategy to improve the level of organizational agility in secondary schools in Gaza Governorate," an article published in the Journal of the Faculty of Education in Educational Sciences , Vol. 40, No. 2, pp. 259-342.
9. Al-Nashili, Dina Helmy Abbas Muhammad .(2020). The Role of Organizational Agility in Achieving Organizational Commitment," a field study, The Arab Journal of Management, Vol. 40, No. 3, pp. 169-185.
10. Al-Rawashdeh, Nazik Ali Suleiman. (2022). Digital modernity and its constructive role in business management" Research published in the Arab Journal for Scientific Research, Vol. 48 ,No. 2, pp. 287-305.
11. Al-Taie, Youssef Hajim, and Al-Abadi, Hashem Fawzi. (2014). Human Resources Management - Contemporary Issues in Administrative Thought), Dar Safaa for Publishing and Distribution, Amman - Jordan.
12. Amirnejad, Ghanbar and Milad, Zahra .(2015). The effects of organizational culture on organizational agility with mediator role of sharing of knowledge headquarters of national company of the oil-rich re gions in south –ahuaz" Indian Journal of Fundamental and Applied Life Sciences, Vol. 5, No. 3, pp. 1521-1529.

13. Angela, M. M. (2015 Influence of Strategic Agility on the Competitive Advantage of Private Hospitals in Nairobi County. Master of Business Administration: University of Nairobi, Kenya.
14. Arokodare, M. A., Asikhia, O. U., and Makinde, G. O. (2019). Strategic agility and firm performance: The moderating role of organisational culture. Business Management Dynamics, Vol. 9, No. 3, pp. 01-12.
15. Benitezm, J., Arenas, A., Castillo, A., and Esteves, J. (2022). Impact of digital leadership capability on innovation performance: The role of platform digitization capability. Information and Management, Vol. 59, No. 2, pp.5.
16. Berghaus , S .(2018). The Fuzzy Froht End Of Digital Transformation : Activities And Approaches For Initiating Organizational Change Strategies " Dissertation Of The University Of ST , Germany .
17. Berghaus, S., and Back, A. (2016). Stages in Digital Business Transformation: Results of an Empirical Maturity Study. In Mediterranean Conference on Information Systems (MCIS) ,pp. 1–17
18. Besson ,p . Rowe ,F . (2012). Strategizing information systems-enabled organizational transformation:A trans disciplinary review and new directions, Journal of strategic Information systems , Vol. 21, No. 2, pp.103-124.
19. BĢÇER, M .(2021). The Advantage of Being an Agile Organization in the Pandemic Crisis. Stratejik Yönetim Araştırmaları Dergisi, Vol. 4, No. 2, pp.123-141.
20. Dagher , Harhoush,and Munqith Muhammad .(2000). Organization Theory and Organizational Behavior, First Edition, National Book House, Baghdad.
21. DongBack, S., Ariel, L. (2008).Exploring the Dark Side of IS in Achieving Organizational Agility .communications of the ACM. Vol. 51, No. 11, pp136-139.
22. Eden, A. B. Jones, V. Casey, and M. Draheim, (2019), "Digital transformation requires workforce transformation", MIS Quarterly Executive, Vol. No.18, pp1
23. Gerald, E., Obianuju, A., and Chukwunonso, N. (2020). Strategic agility and performance of small and medium enterprises in the phase of Covid-19 pandemic. International Journal of Financial, Accounting, and Management, Vol. 2, No. 1, pp. 41-50.
24. Hamad, Zaina Mustafa Mahmoudand and Yozgat, Uğur.(2017). Does organizational agility affect organizational learning capability? Evidence from commer-cial banking " Management Science Letters Vol. 7 ,pp. 407–422
25. Hamedi, Javad and Azimi, Alireza.(2013). Identification and Prioritization of Interorganizational Success Factors in Microbial Biotechnology Firms", Journal of Virology & Microbiology, vol. 2013, Article ID 190528, 8 pages .
26. Kale, E., Aknar, A., and Başar, Ö. (2019). Absorptive capacity and firm performance: The mediating role of strategic agility. International Journal of Hospitality Management, Vol. 78, April 2019, pp. 276-283.
27. Mitroulis, Dimitrios and Fotis Kitsios (2019)" Digital transformation strategy: A literature review" Digital transformation strategy: a literature review, pp. 59-61
28. Nafei, W. A. (2016). Organizational agility: The key to improve organizational performance. International Business Research, Vol. 9, No. 3, pp.97-111
29. Ogunleye, P. O., Adeyemo, S. A., Adesola, M. A., and Yahaya, Y. (2021). Strategic Agility and Small and Medium Enterprises' Performance: Evidence from Osun State, Nigeria. South Asian Journal of Social Studies and Economics .Vol. 11, No. 1, pp.26-36
30. Olivia, F., Ardian, A., Najah, L., and Md, N. A. M. (2020). Towards SMEs' digital transformation: The role of agile leadership and strategic flexibility. Journal of Small Business Strategy. Vol. 30, No. 3, pp.65-85.
31. Park, Y. K. (2011). The Dynamics of Opportunity and Threat Management in Turbulent Environments: The Role of Information Technologies. (Ph.D. Dissertation), University of Southern California.

P-ISSN 2518-5764
E-ISSN 2227-703X

32. Rassoo, Roshan, Dissanayake,d.m. digital transformation for small and medium enterprises (smes) : with special focus on sri lankan context as an emerging economy. International Journal of Business and Management Review, Vol.7, No.4, pp.59-76.
33. Saputra, N., Nugroho, R., Aisyah, H., and Karneli, O. (2021). digital skill during covid-19: effects of digital leadership and digital collaboration. Journal Alpacas Management, Vol.19, No.2, pp.272-281.
34. Shams, R., Vrontis, D., Belyaeva, Z., Ferraris, A., and Czinkota, M. R. (2021). Strategic agility in international business: A conceptual framework for "agile" multinationals. Journal of International Management, Vol.27, No.1, pp.100.
35. Tooranloo, H. S., and Saghafi, S. (2019). Investigating the impact of using knowledge management on organisational agility through competitive intelligence and strategic thinking. Journal of Information and Knowledge Management, Vol.18, No.02, pp.195.
36. Trinh-Phuong, T., Molla, A., and Peszynski, K. (2012B). Enterprise systems and organizational agility: A review of the literature and conceptual framework. Communication of the Association for Information Systems, Vol.31, No.8, pp.167-193.
37. Vial, G. (2019). Understanding digital transformation: A review and a research agenda. Journal of Strategic Information Systems, Vol.28, No.2, pp.118-144.
38. Zeike, S., Bradburry, K., Lindert, L., and Pfaff, H.(2019). Digital Leadership Skills and Associations with Psychological Well-Being, International Journal of Environmental Research and Public Health, Vol.16, No.14, pp. 2628.

Journal of Economics and Administrative Sciences
2024; 30(142), pp. 163-178

P-ISSN 2518-5764
E-ISSN 2227-703X

تأثير الرشاقة التنظيمية في التحول الرقمي
بحث ميداني في وزارة التعليم العالي والبحث العلمي / دائرة الاعمار والمشاريع

حيدر عدنان سالم
جامعة بغداد / كلية الادارة والاقتصاد / قسم ادارة عامة
haider1988adnan1988@gmail.com سلطان

عامر فدعوس عذيب
جامعة بغداد / كلية الادارة والاقتصاد / قسم ادارة عامة
phd.aamer2017@gmail.com سلطان

Received:5/7/2023 Accepted:13/11/2023 Published Online First: 30 /8/ 2024

مستخلص البحث:
البحث الحالي يهدف إلى توضيح تأثير اللياقة التنظيمية مع أبعادها (الاستشعار واتخاذ القرار والتنفيذ/الممارسة) كمتغير مستقل على التحول الرقمي مع أبعاده (القيادة والبنية التحتية وتعبئة الموارد) كمتغير معتمد في إدارة البناء والمشاريع في وزارة التعليم العالي والبحث العلمي. قام الباحث بتوظيف نهج وصفي تحليلي واستخدام أدوات إحصائية متنوعة مثل SPSS V21 و AMOSE و Excel لتحليل العلاقة بين المتغيرات الرئيسية للبحث، والرد على الأسئلة النظرية والتطبيقية، وفحص مستوى الترابط والتأثير، واستخدام أساليب إحصائية مثل معاملات الانحدار ومعاملات الترابط والمتوسطات والانحرافات المعيارية والانتشارات. بالإضافة إلى ذلك، تم استخدام مخططات ورسوم بيانية متنوعة لتوضيح العلاقة بين المتغيرات البحثية وأبعادها الفرعية. تم اختيار العينة بشكل عشوائي من موظفي الشركة المعنية بالبناء والمشاريع، بحيث بلغ حجم المجتمع البحثي 224 فردًا وحجم العينة 142 فردًا. واحدة من النتائج الرئيسية هي أن تأثير اللياقة التنظيمية وأبعادها تلعب دورًا حاسمًا في تعزيز التحول الرقمي. ببساطة، عندما يتم إيلاء اهتمام لتعزيز وتنفيذ اللياقة التنظيمية بفعالية في الإدارة، يتم رفع مستوى التحول الرقمي في المؤسسة. يجدر بالذكر أن بعض أبعاد المتغير التحول الرقمي لم يتم تنفيذها بشكل كافي في الإدارة، مما يجعل الأقسام العليا في المؤسسة تعيد التفكير في تعزيز هذه المفاهيم بسبب أهميتها في تقدم وتحسين مشاريع المؤسسة.

نوع البحث: ورقة بحثية.
المصطلحات الرئيسة للبحث: الرشاقة التنظيمية ، التحول الرقمي ، وزارة التعليم العالي والبحث العلمي