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THE ROLE OF DIGITAL LEADERSHIP IN ENHANCING ORGANIZATIONAL AGILITY: AN EXPLORATORY STUDY OF THE OPINIONS OF A SAMPLE OF EMPLOYEES AT THE COLLEGE OF EDUCATION FOR HUMAN SCIENCES, TIKRIT UNIVERSITY

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Abstract. The research sought to show the effects of digital leadership on improving the agility of organizations by using an exploratory study, a sample of employees at the College of Education for Human Sciences, Tikrit University gave their opinions. The problem to study was the lack of the use of digital leadership practices and its impact on the level of organizational agility in the context of swift technological shifts. The data collection method was descriptive-analytical with the main instrument used was a questionnaire. The questionnaires were130 questionnaires sent to a simple random sample of the teaching and administrative staffs of the school and a total of (113) questionnaires were retrieved and (105) questionnaires were found to be valid for final statistical analysis. The findings of the research showed that there is a statistically significant positive correlation between digital leadership and organizational agility as well as a statistically significant positive effect of digital leadership on organizational agility. This shows the need to embrace digital leadership practices to enhance the organization's adaptability and responsiveness to environmental shifts. Based on the results of the research, the researchers suggest the following recommendations to further improve the implementation of digital leadership, build leadership and employee digital skills, improve the decision-making process based on digital technology, and nurture digital innovation in order to improve the agility of the organization and the performance of the institution in higher education institutions.

Keywords: Digital Leadership, Organizational Agility, Tikrit University

Introduction

The world currently experiences a rapid digital transformation, which has dramatically transformed the working environment of companies and has revolutionised management, decision making and service provision. This has forced institutions, especially higher education institutions, to re-think their administration in a direction that meets the demands of the digital age. The possession of modern technologies is no longer required for organizational success, but it is necessary now for organizational leaders to know how to use these technologies to create an organizational environment of flexibility, innovation, and quick response to changes. This has helped shape "digital leadership" as one of the most significant management strategies of today.

Digital leadership relies on the use of digital tools to manage administrative processes, enable staff to work more effectively, improve the participation of people in decision-making, manage change and create a culture of learning and innovation that improves the efficiency of staff and the effectiveness of the organization. Digital leadership is no longer a possibility for a university, but a necessity, especially as it can help to increase the institutional readiness to be prepared for the future, which entails technological advancement and growing competition, as well as quality and academic accreditation.

Organizational agility, on the other hand, is one of the dynamic capabilities that allows an organization to perceive environmental changes, analyze them and act on them quickly and effectively by redirecting resources, building processes and adapting decisions as needed at the right time. With the continuous changes in educational and technological fields, the need to meet beneficiaries' expectations, and the need for high institutional performance and sustainability, this concept is gaining more and more importance in educational institutions.

The literature of recent management shows that digital leadership is one of the most significant factors that helps to improve the agility of an organization. Leaders with an understanding of a digital vision, who foster innovation, who empower their employees, and who can effectively lead change are better positioned to create agile organizations that can respond to change, capitalize on opportunities, and buffer against challenges, ultimately to achieve strategic goals and increase the competitive edge.

From this, the following premises are drawn and examined in this study: Digital leadership plays a significant role in improving the organizational agility, and the opinions of a sample of employees at the College of Education for Human Sciences from Tikrit University represent the study sample. This is done based on the need to diagnose digital leadership practice levels and determine the level of its contribution to improving the agility of an organization, so that it can provide a scientific basis that can be used by decision makers to develop leadership practices, strengthen institutional capacity to keep up with the requirements of digital transformation, and improve institutional performance for excellence and sustainability.

Methods

First: Research Problem

The high speed of technological innovations, shifting needs of beneficients, and growing competition pose greater challenges for HEIs to become more agile, meaning that they may not be able to adapt to change and enhance their institutional performance as quickly as they need to. This is related to the lack of widespread implementation of contemporary management, specifically digital leadership, which is regarded as one of the key drivers of developing a more flexible and adaptable organization. While digital leadership is becoming an important theme in literature for management, researchers in the field of using digital leadership to improve organizational agility in Iraqi universities are still limited and need to be further explored. Based on this, the following main question is used to represent the research problem: What is the role of digital leadership in improving the agility of organizations from the perspective of a sample of employees at the College of Education for Human Sciences, Tikrit University?

The following sub-questions are derived from the main question:

What is the level of availability of the dimensions of digital leadership among employees at the College of Education for Human Sciences, Tikrit University?

What is the level of availability of the dimensions of organizational agility at the College of Education for Human Sciences, Tikrit University?
Is there a statistically significant relationship between digital leadership and organizational agility at the College of Education for Human Sciences, Tikrit University?
Does digital leadership, with its dimensions, affect the enhancement of organizational agility at the College of Education for Human Sciences, Tikrit University?

Second: Research Importance

The significance of this research lies in the significance of its variables, namely digital leadership and organizational agility, that are contemporary managerial concepts which support in improving the ability of higher education institutions to adapt to the needs of digital transformation and the changing environmental conditions quickly. Research is also important because it has tried to shed light on the role of digital leadership in promoting the agility of the organization, which will help in building leadership practices and enhancing institutional performance at the College of Education for Human Sciences of Tikrit University. In addition, the study helps to fill in a portion of the knowledge gap in the field of examining the relationship between these two variables in the Iraqi university context and offers a scientific framework for university leaders and researchers to benefit from in implementing policies and practices that increase organizational flexibility and achieve digital transformation success.

Third: Research Objectives

The current research seeks to achieve the following main objectives:
Establish the reality of practicing digital leadership in light of the dimensions adopted (digital vision, digital governance, digital employee empowerment, and digital innovation) for academic and administrative leaders in the College of Education for Human Sciences, Tikrit University.
Determine the extent of the college's agility by the main dimensions of organizational agility (sensing agility, decision-making agility and execution agility) from the point of view of the research sample.
Determine the kind of statistical relationship between Digital leadership practices and the degree of agility in the educational environment(s) studied.
Quantitatively measure the significant (statistically) impact of digital leadership on the level of agility of the college (organization) and measure how much the digital leadership contributes to explaining the impact on organizational agility.
Give a practical and procedural suggestion system of recommendations that helps to activate the digital transformation, develop technical skills and improve flexible decision-making mechanisms that enable the college to adapt quickly to the changes in the environment and ensure institutional excellence.

Fourth: Hypothetical Research Model

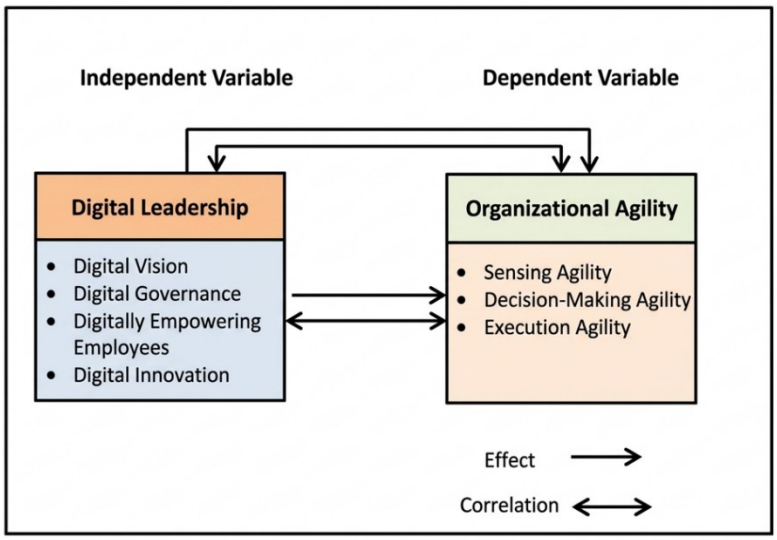


Figure 1. Hypothetical Research Model
Source: Prepared by the Researcher

Fifth: Research Hypotheses

Based on the research problem and objectives, the research hypotheses were formulated as follows:

First Main Hypothesis: There is a statistically significant correlation between digital leadership and organizational agility at the College of Education for Human Sciences, Tikrit University.

This hypothesis is subdivided into the following sub-hypotheses:

1. There is a statistically significant correlation between digital vision and organizational agility at the College of Education for Human Sciences, Tikrit University.
2. There is a statistically significant correlation between digital governance and organizational agility at the College of Education for Human Sciences, Tikrit University.
3. There is a statistically significant correlation between digital employee empowerment and organizational agility at the College of Education for Human Sciences, Tikrit University.
4. There is a statistically significant correlation between digital innovation and organizational agility at the College of Education for Human Sciences, Tikrit University.

Second Main Hypothesis: There is a statistically significant effect of digital leadership on organizational agility at the College of Education for Human Sciences, Tikrit University.

This hypothesis is subdivided into the following sub-hypotheses:

1. The digital vision gives a statistically significant effect to the organizational agility of the College of Education for Human Sciences, Tikrit University.
2. The digital governance has statistically significant effect on organizational agility in the College of Education for Human Sciences at Tikrit University.
3. Digital empowerment of employees has a significant effect on the agility of the College of Education for Human Sciences, Tikrit University, statistically.
4. Digital innovation has a significant effect at the College of Education for Human Sciences on the organizational agility at Tikrit University statistically significantly.

Sixth: Research Population and Sample

The population of the current research was defined as all employees at the College of Education for Human Sciences, Tikrit University, comprising two categories: teaching staff and administrative employees, as they are the group most closely associated with and exposed to leadership and administrative practices within the college. The researcher adopted the simple random sampling method to select the research participants. The field data collection process was conducted according to the following criteria:

1. Distributed questionnaires: A total of (130) questionnaires were distributed to the targeted sample members.
2. Retrieved questionnaires: A total of (113) questionnaires were retrieved from the total number of distributed questionnaires.
3. Questionnaires valid for analysis: Following examination and verification, incomplete questionnaires or those that did not meet the required conditions were excluded, resulting in (105) questionnaires being valid for the final statistical analysis.

Accordingly, the final approved research sample consisted of (105) respondents. This sample size provides an appropriate and sufficient representation of the research population, allowing accurate results that are scientifically acceptable and reasonably generalizable to be obtained.

Seventh: Research Methodology

The research was descriptive analytical approach because of its appropriateness to nature and objectives of the research. This will allow the College of Education for Human Sciences, Tikrit University's current state of digital leadership and organizational agility to be described, the relationship between them to be analyzed, and the role of digital leadership in improving organizational agility to be examined based on the field data collected from the members of the research sample by means of questionnaire.

Results and Discussion

Section Two

Theoretical Framework

Digital Leadership

First: The Concept of Digital Leadership

It is one of the most salient management theories of the modern era to emerge as a result of the rapid advances in information and communication technologies and is regarded as digital leadership.Digital leadership is one of the most salient managerial theories of the modern era to emerge as a result of the fast-changing developments in information and communication technologies. As digital transformation becomes the norm, companies can no longer afford to rely on traditional leadership structures that are not outfitted to harness the latest technologies and create a flexible work environment that can meet and respond to a changing world. The leadership role in today's world is no longer constrained by the traditional domains of human and material resource management, but rather is centered more on a leading role for digital transformation and change.

Within the framework of operationally defining this concept, researchers' perspectives have varied according to their views of the dimensions of this leadership style. A few researchers concentrated on the operational aspect and process structuring. El Sawy et al. [1] defined it as "the capacity of the leader to use digital technologies to redesign the organization and innovate new business models that value the organization". From a different point of view, the behavior/skill approach of Cortellazzo et al. [2] centered on the idea that "digital leadership is a set of behaviors and skills which allows the leader to lead people in the digital world, facilitate collaboration, foster innovation, create an organizational culture in which change is embraced.

This view applies not only to the influence of digital media, but also to digital means of communication. According to Zeike et al. [3], digital leadership is exhibited when the leader can engage employees using digital tools to improve communication and flexibility in the organization. This in turn, demands leadership competence in technology integration and its use with modern managerial practices and decision-making, as mentioned by Araujo et al. [4], who defined it as the integration of technology and its use with modern managerial practices and decision-making for better performance.

Today's managerial thinking is not only about technique but also about developmental and cultural aspects. Eberl and Drews [5] highlighted that digital leadership is not merely about having the technical skills, it's also about creating a digital culture, empowering employees and managing knowledge. This is in line with Kane et al. [6] who stated that a digital leader should have a strategic vision to help them lead digital transformation, foster innovation and embrace change. This view is also in line with the research by Westerman et al. [7], which revealed that the key to a successful digital transformation in any organization lies in the effective use of leadership, which can harness technology to attain strategic goals.

Second: Importance of Digital Leadership

Digital leadership is seen as one of the key elements of a successful organization in today's world, as it is responsible for leading the digital transformation and using technology to achieve strategic goals and competitive advantages [7]. It also helps to increase innovation and collaboration, and to develop an organizational culture of constant learning, which helps organizations face the challenges of the digital environment [2], and improve the quality of their managerial decisions by using data and digital technologies, thus boosting their efficiency in responding to changes and in their performance [4].

Digital leadership also supports employees; builds their digital skills; encourages innovation; and manages knowledge [5]; and promotes flexibility and adaptation to changes and crises [3]. It further plays a role in the sustainable competitive advantage that is gained by developing the processes and services along with innovation of more efficient business models [6]. So digital leadership is about more than just managing technology, it's also about changing, empowering, innovating and performing better as an organisation.

Third: Objectives of Digital Leadership

Digital leadership is to be a leader in digital transformation, process development and service quality [7], to redesign business models in the digital environment and create added value for the

organization [1]. It also aims to foster innovation, ongoing learning, knowledge dissemination and/or the creation of innovative solutions [2], to strengthen the quality of decision-making processes based on data and digital technologies, thus increasing efficiency in decision-making processes and the rapidity in responding to changes [4].

Other goals of digitalization involve fostering a digital organizational culture and providing employees with the digital skills needed to meet the demands of the modern workplace [5], as well as strengthening organizational flexibility, communication, and collaboration in the digital sphere [3]. In conclusion, it aims to provide sustainable competitive advantage through innovation, efficient investment in technology and to enhance the performance of the organization [6].

Fourth: Dimensions of Digital Leadership

The current research adopted the model of [8], which views digital leadership as a set of capabilities and skills that enable the leader to manage digital transformation, employ modern technologies, and prepare the organization to keep pace with rapidly changing developments. The model consists of five main dimensions:

1. Digital Vision (Digital Vision): It is the capacity of the leader to develop a clear strategic vision for digital transformation and to connect the adoption of digital technologies with the future goals of the organization in a way that allows sustainable development and will strengthen the competitive advantage of the organization. Digital vision is seen as one of the essential parts of digital leadership, in terms of the leader setting a clear direction that influences how digital technologies can be used to support the organisation's goals and how operations can be advanced. In this regard, AlNuaimi et al. [9] highlight the significance of digital leadership in shaping digital transformation, since it connects leadership orientations to the digital strategy of the organization to increase its adaptability to change and reach the expected transformation. Türk [10] also believes that digital leadership involves a vision of digital transformation and a connection with the general strategy of the organisation, contributing to directing resources and efforts towards achieving the targeted value of digital transformation.
2. Digital Governance (Digital Governance): The leader's competence is demonstrated in creating policies and controls that ensure the security of information, management of data, transparency and accountability in the digital environment. Digital governance is one key aspect of digital leadership, due to its role of regulating the use of digital technologies and data, and ensuring that they are used in line with the organisation's goals and the demands of transparency and accountability. As Hanisch et al. [11] argue, digital governance relies on a set of mechanisms that govern control, coordination, incentive, and trust-building processes in digital environments, which can facilitate organizations in managing their relations and resources digitally. Also, governance in the digital environment has been linked to improving transparency and accountability, which is one of the basic conditions for the development of clear, trustworthy and responsible digital management practices, as explained by Pribadi et al. [12].
3. Digital Employee Empowerment (Digital Empowerment): Digital employee empowerment is viewed as one of the basic practices in digital leadership. The role of the leader goes beyond having access to modern technologies; it extends to the development of the capabilities of its employees, empowering them to participate in more ways and express themselves more, and helping them to use digital tools to complete tasks. To this end, Yang et al. [13] discovered that digital leadership is an important factor in improving employees' voice behaviour, and one of the ways in which digital leadership can influence employees' organizational behaviour is through employee empowerment. Gao and Gao [14] also noted that digital leadership can play a role in improving employees' innovative behavior by fostering psychological empowerment, further underscoring the need to foster a digital environment that empowers employees to participate in the innovation process, cultivates their skills, and leverages their creative potential.
4. Digital Innovation (Digital Innovation): Digital innovation is one of the three pillars of digital leadership, because of its association with the leader's capacity to build new products, services and processes for the organization through the use of digital innovation. In this aspect, Benitez et al. [15] identified that the digital leadership capabilities are linked to the improvement of innovation performance as they add value to the skills of the organization to digitize its platforms

and use the digital technologies in an effective way. The study also found that digital leadership significantly positively affects the innovative behavior of employees, as an empowering environment enables the organization to be innovative in the digital environment, finding this, Gao and Gao [14] concluded.

Organizational Agility

First: The Concept of Organizational Agility

One of the modern concepts of management which has gained more attention recently is organizational agility due to the changing business environment and the constant changes brought by technology and competition. It involves the process of sensing and responding quickly to changes in the internal and external environment that allows the organisation to continue and meet its strategic goals. Therefore, one of the key capabilities that organisations need to have to be agile, flexible and innovative, and to retain their competitive edge is the ability to seek out and utilise organizational agility.

Sambamurthy, Bharadwaj, and Grover [16] defined organizational agility as the ability of the organization to sense opportunities and threats in the business environment and to respond to them quickly by redeploying organizational resources and capabilities. On this idea, Overby, Bharadwaj, and Sambamurthy [17] suggested that organizational agility is illustrated by an organization's capacity to notice environmental changes and respond appropriately at the right moment to adapt to changes and to outperform rivals.

In the same direction, Tallon and Pinsonneault [18] explained that organizational agility reflects the organization’s ability to respond rapidly to changes in markets and customer needs by employing resources and information technologies in a flexible and effective manner. Lu and Ramamurthy [19] also found that organizational agility was a dynamic capability that would help the organization sense the changes in the environment and respond to them quickly with operational flexibility and reconfiguring of resources.

Sherehiy and Karwowski [20] see organizational agility from a more recent point of view as the capacity of the organization to continually adjust to changes and act quickly on opportunities and threats without compromising efficiency and innovation. Additionally, Appelbaum et al. [21] pointed out that in today's unpredictable climate, organizational agility is now a strategic imperative that enables organisations to be sustainable and competitive in their operations by making quick decisions and learning continuously.

Second: Importance of Organizational Agility

In a rapidly changing, competitive business landscape, organizational agility is one of the core elements that can help an organization survive and thrive. It enables them to adapt to environmental changes, capitalize on opportunities, and deal with threats efficiently. Sambamurthy et al. [16] maintain that organizational agility helps in improving the competence of the organization to sense environmental changes and to redirect the resources to renew the organization and pursue competitive advantage. The role of organizational agility is also great in allowing the organization to adjust to sudden changes in markets and customers' needs, thereby positively impacting the quality and timeliness of decision implementation [17]. It also plays a role in improving the organizational performance by improving the operational flexibility, the efficiency of the use of resources, and strengthen the organization capacity for innovation [19].

Similarly, Tallon and Pinsonneault [18] suggested that with regard to integration of resources, organizational agility improves an organization's capacity to respond quickly to environmental changes while utilizing modern technology. Sherehiy and Karwowski [20] have also posited that organisations that can be classified as agile have a higher capacity to respond to change, foster ongoing learning and optimise interpersonal working. In the meantime, the research of Appelbaum et al. [21] has shown that organizational agility is now a part of the strategic goals for becoming sustainable and competitive in the long run, because of its capacity to adapt to crises and challenges, and achieve better performance in the long run.

Third: Objectives of Organizational Agility

The main goal of organizational agility is to ensure that organizations can respond and react to the changes in the business environment effectively and continue their operations while meeting their goals. In the same vein, Doz and Kosonen [22] suggested that organizational agility is intended to

increase the organization's capacity to rapidly respond to changes in the environment by focusing resources and formulating strategies based on these changes.

Moreover, Teece [23] noted that an important goal of organizational agility is to improve the organization's "sensing" capabilities of opportunities and threats, and to respond to them quickly and effectively with timely decisions, enabling innovation and competitiveness. However, Joiner [24] contended that organizational agility is to optimize the response time to beneficiaries' and markets' needs and to optimize organizational processes in ways that ensure quality performance and beneficiary satisfaction.

In this regard, among others, Felipe, Roldán, and Leal-Rodríguez [25] stated that organizational agility is aimed at not only optimizing the use of resources and boosting organizational performance, but also at improving organizational flexibility and the ability to manage change and deal with uncertainty. Shams et al. [26] also defined organizational agility as creating the organization that can continuously learn, innovate, and thrive in digital transformation to meet future challenges and create sustainability. The goal of organizational agility, therefore, is to increase the organization's ability to quickly respond to change, generate better performance and competitive advantage within an environment of dynamism and instability.

Fourth: Dimensions of Organizational Agility

For the purpose of identifying the dimensions of organizational agility, the current research adopted the model of Lu and Ramamurthy [19]. This model is based on dividing organizational agility into three main dimensions: sensing agility, decision-making agility, and execution agility. Each dimension is detailed as follows:

1. Sensing Agility is the organisation's capacity to sense both the external and internal environment, recognise opportunities and threats and to continuously gather and analyse information to enable early responses to change. Overby, Bharadwaj, and Sambamurthy [17] described it as an organization's capacity to anticipate environmental alterations and detect opportunities and threats impacting on the organization.
2. Decision-Making Agility (Decision-Making Agility): describes the organizations capacity to quickly process information, consider options and make timely, flexible and effective decisions that will support environmental adaptation. As Tallon and Pinsonneault [18] put it this dimension is characterised by an organization's ability to make prompt and effective decisions in response to information at its disposal which aids them to move quickly to meet changes.
3. Execution Agility (Acting Agility): How quickly and flexibly the organization can take action on decisions and redeploy resources, as well as adapt processes and procedures, to respond to changes in the environment. As defined by Sherehiy and Karwowski [20] it is the capacity of the organization to make changes quickly and turn decisions into concrete action that leads to efficiency and effectiveness.

Section Three

Practical Aspect of the Research

First: Characteristics of the Research Sample

The tables below present the demographic characteristics of the research sample and the participation rate of each category in answering the questionnaire items, as follows:

1. Distribution of Research Sample Members by Gender

Table 1. Distribution of Sample Members by Gender

Variable	Category	Number of Respondents	Percentage
Gender	Male	87	82.86%
	Female	18	17.14%
Total		**105**	**100%**

Source: The table was prepared by the researcher.

The results of the statistical analysis presented in Table (1) for the gender variable showed that the majority were males, with (87) respondents, representing (82.86%), compared with a limited

representation of females, with only (18) respondents, representing (17.14%).

2. Distribution of Research Sample Members by Age

Table 2. Distribution of Sample Members by Age

Variable	Category	Number of Respondents	Percentage
Age	Less than 30 years	5	4.76%
	30–39	45	42.86%
	40–49	33	31.43%
	50 years and above	22	20.95%
Total		**105**	**100%**

Source: The table was prepared by the researcher.

The distribution of the research sample members with respect to the age variable is shown in Table (2). The results showed that the age group (30-39 years) had the largest number of respondents (42.86%) followed by the age group (40-49 years) with (31.43%) of the respondents respectively. The age group (50 years and above) followed with (20.95%) and the age group under (30) years came with (4.76%).

3. Distribution of Research Sample Members by Educational Qualification

Table 3. Distribution of Sample Members by Educational Qualification

Variable	Category	Number of Respondents	Percentage
Educational Qualification	Bachelor's Degree	12	11.43%
	Higher Diploma	5	4.76%
	Master's Degree	57	54.29%
	Doctorate (Ph.D.)	31	29.52%
Total		**105**	**100%**

Source: The table was prepared by the researcher.

The distribution of the research sample members in relation to the variable of educational qualification is presented in table (3). The results revealed that the highest number of respondents, (54.29 %), had a master's degree, followed by (29.52 %) who had a doctoral degree and (11.43 %) who had a bachelor's degree. Respondents holding a higher diploma ranked last with (5) respondents which is (4.76%).

4. Distribution of Research Sample Members by Years of Service

Table 4. Distribution of Sample Members by Years of Experience (Service)

Variable	Category	Number of Respondents	Percentage
Years of Service	Less than 5 years	8	7.62%
	5–10 years	39	37.14%
	More than 10 years	58	55.24%
Total		**105**	**100%**

Source: The table was prepared by the researcher.

The number of years of service variable distribution of the members of the research sample is shown in Table (4). The results showed that the group with more than (10) years of service was the first

with (58) persons of respondents, followed by the group of (5-10) years of service with (39) persons of respondents which amounted to (37.14%). The group that has less than (5) years of service was the lowest with (8) respondents ((7.62%)).

Second: Description and Diagnosis of the Research Variables

This section aims to conduct a descriptive analysis of the research variables based on the indicators of the arithmetic mean, standard deviation, and coefficient of variation for each variable, as follows:

1. Description and Diagnosis of Digital Leadership

The results of the descriptive analysis of dimensions of the digital leadership variable, at the College of Education for Human Sciences, Tikrit University, was done by arithmetic mean, standard deviation and coefficient of variation, and to diagnose the level of adoption of digital leadership from the point of view of the set of the sample as is presented in Table (5).

Table 5. Descriptive Analysis of Digital Leadership Dimensions

S	Dimensions	Mean	Standard Deviation	Coefficient of Variation
1	Digital Vision	3.762	0.807	21.45%
2	Digital Governance	3.803	0.863	22.70%
3	Digitally Empowering Employees	3.644	0.601	16.50%
4	Digital Innovation	3.686	0.745	20.22%
Total		**3.724**	**0.754**	**20.22%**

Source: Prepared by the Researcher Based on the SPSS Program

As shown in the result presented in Table (5), the rate of adoption of digital leadership among the sample members was relatively high with an overall arithmetic mean of (3.724), standard deviation of (0.754) and coefficient of variation of (20.22%). This suggests that there is a good degree of consensus amongst the sample population on the support of digital leadership practices within an organisation, alongside an acceptable level of consistency in their responses.

At the dimension level, digital governance was the one with the highest mean score, (3.803), the lowest standard deviation (0.863) and the lowest coefficient of variance (22.70%), indicating the organisation's interest in putting in place controls and policies to govern the use of digital technologies and improve governance practices. Digital vision came in second and digital innovation came in third with an arithmetic mean of (3.762) and (3.686), respectively. This suggests that the leadership has a vision for digital transformation and are interested in the adoption of innovative digital concepts and solutions.

Regarding digital employee empowerment, it was the lowest, with an arithmetic mean of (3.644); but it was still in the relatively high level. It also had the lowest coefficient of variation (16.50%), which can be interpreted as a high level of uniformity of the opinions of the sample members on this dimension. Overall, the findings indicate that the organisation has a good level of digital leadership, which may help to support digital transformation, improve performance efficiency and meet organisational goals.

2. Description and Diagnosis of Organizational Agility

Table (6) presents the results of the descriptive analysis of the dimensions of **organizational agility** at the College of Education for Human Sciences, Tikrit University, based on the arithmetic mean, standard deviation, and coefficient of variation, with the aim of diagnosing the level of organizational agility from the perspective of the sample members.

Table 6. Descriptive Analysis of Organizational Agility Dimensions

S	Dimensions	Mean	Standard Deviation	Coefficient of Variation
1	Sensing Agility	3.717	0.947	25.48%
2	Decision-Making Agility	3.540	0.767	21.67%

S	Dimensions	Mean	Standard Deviation	Coefficient of Variation
3	Execution Agility	3.600	1.010	28.06%
Total		**3.619**	**0.908**	**25.07%**

Source: Prepared by the Researcher Based on the SPSS Program

The findings of the study revealed that the overall mean, standard deviation and coefficient of variance of the sample were (3.724), (0.754) and (20.22%) respectively, which shows that the level of adoption of digital leadership among the sample members was relatively high. This suggests a high level of consensus within the sample on the presence of digital leadership practices within the organisation and a good consistency of response.

Digital governance was the top ranked dimension (average score (3.803), standard deviation (0.863), coefficient of variance (22.70%), indicating the organization's interest in setting controls and policies to regulate the use of digital technologies and improve governance practices. Digital vision was the second with an arithmetic mean of (3.762), followed by digital innovation with an arithmetic mean of (3.686). This shows that the leadership has a vision for digital transformation and also is interested in adopting new and innovative ideas and solutions for digital transformation.

With regard to digital employee empowerment, it was the last in the list with arithmetic mean value (3.644), but it is still in the relatively high range. It also had the lowest coefficient of variation among all dimensions (16.50%), which shows a high level of uniformity among the opinions of the sample members on this dimension. Overall, the results suggest that the organisation has a satisfactory digital leadership level that can help to support digital transformation, improve the efficiency of doing things and contribute to the organisation's objectives.

1. Description and Diagnosis of Organizational Agility

Table (6) presents the results of the descriptive analysis of the dimensions of **organizational agility** at the College of Education for Human Sciences, Tikrit University, based on the arithmetic mean, standard deviation, and coefficient of variation, with the aim of diagnosing the level of organizational agility from the perspective of the sample members.

Table 7. The Correlation Between Digital Leadership and Organizational Agility

Independent Variable	Dependent Variable	Correlation Coefficient (R)	Sig. (p-value)
Digital Leadership	Organizational Agility	0.887	0.000

Source: Prepared by the Researcher Based on the SPSS Program

The results revealed that digital leadership is highly correlated with organizational agility as the correlation coefficient was (R = 0.887), with the higher digital leadership implementation level, an increase in organizational agility implementation level in the organization. In addition, the statistical significance level (Sig. = 0.000) was also lower than the accepted level of statistical significance (0.05), this means that the relationship between the two variables is not random. Thus, the primary correlation hypothesis that there is a statistically significant correlation between digital leadership and organizational agility is supported.

Table (8) illustrates the correlation relationships between the sub-dimensions of each of the research variables, as follows:

Table 8. Correlation Matrix Between Digital Leadership Dimensions and Organizational Agility Dimensions

S	Digital Leadership Dimensions	Sensing Agility	Decision-Making Agility	Execution Agility
1	Digital Vision	0.724	0.151	0.515
2	Digital Governance	0.685	0.488	0.286
3	Digitally Empowering Employees	0.188	0.281	0.552

S	Digital Leadership Dimensions	Sensing Agility	Decision-Making Agility	Execution Agility
4	Digital Innovation	0.180	0.309	0.463

Source: Prepared by the Researcher

As can be seen in Table (8) the result shows that there is a statistically significant positive correlation between the dimensions of the independent variable (digital leadership) and the dimensions of the dependent variable (organizational agility). The dimension (digital vision and digital governance) had the highest correlation value in the dimension (sensing agility) as 0.724 and 0.685, respectively. This underscores the importance of clarity about the digital orientation and governance in the college and how it contributes to the college's ability to detect changes in the environment early. On the other hand, (digital employee empowerment) showed a moderate (0.552) and relatively high correlation with (execution agility), indicating that having digital authority for employees is directly impacting their field execution agility. On the other hand, there was a weak correlation between digital vision and decision-making agility (0.151), suggesting the presence of an administrative gap that could be due to bureaucratic procedures or the concentration of traditional authorities, which hinder decision making speed even with the presence of an ambitious vision.

2. Testing the Effect Relationship (Regression Analysis)

Table (9) presents the results of the **Simple Linear Regression Analysis** conducted to measure the effect of digital leadership as the independent variable on organizational agility as the dependent variable. This analysis aims to test the main effect hypothesis of the research and determine the extent to which digital leadership contributes to explaining the changes occurring in organizational agility, in addition to verifying the significance of the regression model through the indicators of the regression coefficient (β), coefficient of determination (R^2), the (F) and (T) tests, and the statistical significance level (Sig.).

Table 9. Simple Linear Regression Analysis

Independent Variable	β	R2	F	t	Significance Level (p-value)	Decision
Digital Leadership	0.517	0.784	37.443	6.119	0.000	Accept Hypothesis

Source: Prepared by the Researcher Based on the SPSS Program

The findings presented in Table (9) led to the acceptance of the second main hypothesis of the study which was that there is a highly significant positive effect of digital leadership on enhancing organizational agility at the College of Education for Human Sciences, Tikrit University. From this significance level (Sig. = 0.000) a statistical significance of this effect and the validity of the model is confirmed. Besides, the coefficient of determination (R^2 = 0.784) also shows the high explanatory power of the model, meaning that 78.4% of the changes and the variations in the agility of the college can be explained by the dimensions of digital leadership, with the other percentage due to other factors. This is also reflected on the positive value of the regression coefficient (β = 0.517), implying that there is a strong positive relationship; for every increase by one of the adoption of digital leadership practices, it is found that the level of organizational agility will increase by (0.517), supported by the values of the (F = 37.443) and (T = 6.119) tests. This finding will give concrete proof that the shift to digital leadership is an essential cornerstone in allowing the college to become a responsive and agile organisation in its ability to sense changes in the environment and respond.

Table 10. Multiple Regression Analysis of Digital Leadership Dimensions on Organizational Agility Dimensions

S	Digital Leadership Dimensions	Sensing Agility (β)	Decision-Making Agility (β)	Execution Agility (β)
1	Digital Vision	0.286	0.241	0.268
2	Digital Governance	0.271	0.263	0.279

S	Digital Leadership Dimensions	Sensing Agility (β)	Decision-Making Agility (β)	Execution Agility (β)
3	Digitally Empowering Employees	0.218	0.292	0.314
4	Digital Innovation	0.193	0.226	0.241

Source: Prepared by the Researcher Based on the SPSS Program

Based on the results shown in Table (10), it is concluded that the digital leadership dimensions have a positive influence on the dimensions of organizational agility. The standardized regression coefficients (β) were all positive, suggesting that enhanced digital leadership practices are associated with greater level of organizational agility, in all dimensions.

In terms of the sensing agility, digital vision was most significant with a coefficient of (β = 0.286), followed by digital governance (β = 0.271), digital employee empowerment (β = 0.218) and digital innovation (β = 0.193). This points to the need to have clarity in a leader's digital orientation and to have clear governance structures to better enable the college to 'feel' the changes, opportunities and challenges that are present in the external landscape.

Regarding decision making agility, the highest value of beta was found for digital employee empowerment (0.292), followed by digital governance (0.263), digital vision (0.241) and digital innovation (0.226). This means that if employees have digital authority and the right to digital capabilities, along with the right governance processes, it can improve the agility and efficiency of decision-making.

In terms of execution agility, digital employee empowerment had the highest coefficient (β = 0.314), digital governance (β = 0.279), digital vision (β = 0.268) and digital innovation (β = 0.241) came in last. This is a sign of how vital it is to equip staff with digital tools and privileges to convert decisions into concrete actions and execute them quickly and flexibly.

Overall, the findings suggest that digital employee empowerment is the largest dimension for improving decision-making agility and execution agility, while digital vision is the largest for improving sensing agility. The results also indicate that the dimensions of digital leadership do not necessarily have the same direction of impact and intensity on all facets of organizational agility; they can impact differently based on the type of targeted organizational dimension.

Conclusions and Recommendations

First: Conclusions

1. The results of the research showed that the level of digital leadership practices in Tikrit University-COLlege of Education for Human Sciences was relatively high, indicating the College of Education for Human Sciences' interest in modern digital practices.
2. It was observed that the level of organizational agility among the sample members is at a reasonably high level, which means that the college has a good sense of change and adaptability.
3. In terms of digital leadership dimensions, digital governance was ranked first, and digital employee empowerment was ranked last, which suggests that the program of employee empowerment needs to be enhanced.
4. The results indicated that the dimension of sensing agility was the highest and decision-making agility was the lowest among the dimensions of the organizational agility thus emphasizing the need to develop mechanisms for decision-making to become faster and more flexible.
5. The statistical analysis results showed that there was a statistically significant positive correlation between digital leadership and organizational agility, meaning that digital leadership increases, organizational agility increases.
6. The findings from the regression analysis revealed that digital leadership is important as a supporting factor to improve the organizational agility and it positively and significantly explained a significant portion of the changes in organizational agility, confirming its importance.

Second: Recommendations

1. Improve implementation of digital leadership practices at the college by setting clear strategies for digital transformation and creating digital administrative infrastructure.
2. Conduct ongoing training sessions to build digital skills of academic and administrative leaders and staff to support them in effectively utilizing modern technologies.
3. Support digital employee empowerment by giving them digital tools and applications and engage them in decision making processes, and promote continuous learning.
4. Implement decision making processes, making use of information systems and digital analysis, and enhancing response to the environment.
5. Promote the culture of digital innovation in the college by supporting ideas and implementing technologies that help enhance institutional functioning.
6. Perform future research on other organizational variables that could impact organizational agility, such as digital transformation, AI, and organizational culture, which could help to develop more comprehensive explanatory models.

References

[1] O. A. El Sawy, P. Kræmmergaard, H. Amsinck, and A. L. Vinther, "How LEGO built the foundations and enterprise capabilities for digital leadership," MIS Quarterly Executive, vol. 15, no. 2, pp. 141–166, 2016.
[2] L. Cortellazzo, E. Bruni, and R. Zampieri, "The role of leadership in a digitalized world: A review," Frontiers in Psychology, vol. 10, Art. no. 1938, 2019, doi: 10.3389/fpsyg.2019.01938.
[3] S. Zeike, K. Bradbury, L. Lindert, and H. Pfaff, "Digital leadership skills and associations with psychological well-being," International Journal of Environmental Research and Public Health, vol. 16, no. 14, 2019.
[4] L. M. Araujo, S. Priadana, V. Paramarta, and D. Sunarsi, "Digital leadership in business organizations: Concept and implications," International Journal of Educational Administration, Management, and Leadership, vol. 2, no. 1, pp. 1–12, 2021.
[5] J. K. Eberl and P. Drews, "Digital leadership – Mountain or molehill? A literature review," Business Research, vol. 14, no. 2, pp. 541–583, 2021.https://doi.org/10.3389/fpsyg.2019.01938
[6] G. C. Kane, A. N. Phillips, J. Copulsky, and G. Andrus, The Transformation Myth: Leading Your Organization Through Uncertain Times. MIT Press, 2022.
[7] G. Westerman, D. Bonnet, and A. McAfee, Leading Digital: Turning Technology into Business Transformation. Harvard Business Review Press, 2014.
[8] M. Van Wart, A. Roman, X. Wang, and C. Liu, "Operationalizing digital leadership: A comprehensive framework for public and private organizations," Public Administration Review, 2024.
[9] B. K. AlNuaimi, S. K. Singh, S. Ren, P. Budhwar, and D. Vorobyev, "Mastering digital transformation: The nexus between leadership, agility, and digital strategy," Journal of Business Research, vol. 145, pp. 636–648, 2022.
[10] A. Türk, "Digital leadership role in developing business strategy suitable for digital transformation," Frontiers in Psychology, vol. 13, Art. no. 1066180, 2023.
[11] M. Hanisch, C. M. Goldsby, N. E. Fabian, and J. Oehmichen, "Digital governance: A conceptual framework and research agenda," Journal of Business Research, vol. 162, 2023.
[12] U. Pribadi, M. Iqbal, M. A. Ibrahim, Juhari, and Y. Ahdarrijal, "Nexus of public organization, transparency, and accountability in Indonesia's digital governance," Journal of Public Affairs, vol. 24, no. 3, 2024.
[13] C. Yang, Z. Li, F. Li, and H. Li, "The impacts of digital leadership on employee voice behaviors: The mediating roles of employee empowerment and work engagement," SAGE Open, 2024.
[14] P. Gao and Y. Gao, "How does digital leadership foster employee innovative behavior: A cognitive–affective processing system perspective," Behavioral Sciences, vol. 14, no. 5, Art. no. 362, 2024.
[15] J. Benitez, A. Arenas, A. Castillo, and J. Esteves, "Impact of digital leadership capability on innovation performance: The role of platform digitization capability," Information & Management, vol. 59, no. 2, 2022.

[16] V. Sambamurthy, A. Bharadwaj, and V. Grover, "Shaping agility through digital options: Reconceptualizing the role of information technology in contemporary firms," MIS Quarterly, vol. 27, no. 2, pp. 237–263, 2003.
[17] E. Overby, A. Bharadwaj, and V. Sambamurthy, "Enterprise agility and the enabling role of information technology," European Journal of Information Systems, vol. 15, no. 2, pp. 120–131, 2006.
[18] P. P. Tallon and A. Pinsonneault, "Competing perspectives on the link between strategic information technology alignment and organizational agility," MIS Quarterly, vol. 35, no. 2, pp. 463–486, 2011.
[19] Y. Lu and K. Ramamurthy, "Understanding the link between information technology capability and organizational agility: An empirical examination," MIS Quarterly, vol. 35, no. 4, pp. 931–954, 2011.
[20] B. Sherehiy and W. Karwowski, "The relationship between work organization and workforce agility in small manufacturing enterprises," International Journal of Industrial Ergonomics, vol. 44, no. 3, pp. 466–473, 2014.
[21] S. H. Appelbaum, R. Calla, D. Desautels, and L. Hasan, "The challenges of organizational agility (Part 1)," Industrial and Commercial Training, vol. 49, no. 1, pp. 6–14, 2017.
[22] Y. L. Doz and M. Kosonen, "Embedding strategic agility: A leadership agenda for accelerating business model renewal," Long Range Planning, vol. 43, nos. 2–3, pp. 370–382, 2010.
[23] D. J. Teece, "Business models and dynamic capabilities," Long Range Planning, vol. 51, no. 1, pp. 40–49, 2018.
[24] B. Joiner, "Leadership agility for organizational agility," Journal of Creating Value, vol. 5, no. 2, pp. 139–149, 2019.
[25] C. M. Felipe, J. L. Roldán, and A. L. Leal-Rodríguez, "Impact of organizational culture values on organizational agility," Sustainability, vol. 12, no. 8, pp. 1–20, 2020.
[26] S. M. R. Shams, D. Vrontis, Z. Belyaeva, A. Ferraris, and M. Czinkota, "Strategic agility in international business: A conceptual framework for 'agile' multinationals," Journal of International Management, vol. 27, no. 1, 2021.