

# Investigating the impact of leadership role and digital skills on improving organizational performance with the mediating role of digital ethics

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## Abstract

In terms of the implementation method, it was part of descriptive-correlational research. The statistical population included all employees and academic staff members of Payame Noor University in Rasht, numbering 220 people due to the small population and the possibility of sample loss, all people were considered as samples by the census method. Tools included organizational performance questionnaires, digital leadership, digital skills, and digital ethics. Therefore, in this research, the validity was approved by the professors of the management group in the form of formal validity. The reliability of the questionnaires was obtained through Cronbach's alpha test for digital leadership 0.795, organizational performance 0.918, digital skills 0.711, and digital ethics 0.811 respectively. To analyze the data and findings of the research, questions and hypotheses have been examined at two levels descriptive statistics and inferential statistics. At the level of descriptive statistics, indices such as frequency distribution tables and charts were used. At the inferential level, Pearson's correlation of the type of structural equations was used, and for calculations and statistical analysis, computers and Lisrel, SPSS software was used. The results showed that from the perspective of employees, leadership and digital skills directly affect organizational performance, and leadership and digital skills indirectly affect organizational performance with the mediating role of digital ethics.

Keywords: digital leadership, digital skills, digital ethics, organizational performance  
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## 1 Introduction

The study of leadership is always evolving. The rapid evolution of leadership reflects the realities of the real world in geopolitical and institutional changes and especially technological advancement. Therefore, with the entry into the digital age, the leadership style has also changed. Research has shown how different forms of leadership facilitate group performance in different types of electronic media [8, 34]. These characteristics of leaders show that leadership is especially important in times of change. Until a company's business model is challenged by competitors and customer preferences, having good leadership may not be critical to a company's survival. Having good leadership may not be critical to a company's survival. However, this is where digital transformation comes into play. The digitization of business processes enables unprecedented monitoring and control over almost every aspect. Big data and artificial

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intelligence support companies in optimizing each step of their processes until these steps can be measured and then understood by algorithms [14]. The digitalization of business processes creates opportunities that do not have meaning by themselves, but only with the support of the human mind, which is the digital leader [36]. Due to the increasing and rapid changes in the external environment at the level of business organizations and the level of countries, it has become necessary to search for a leadership style to quickly access and keep up with the changes to maintain the conditions. Attention is focused on the digital leadership style, considering that this leadership style ensures keeping up with developments and rapid changes. Digital leadership is based on doing business and managing it based on digital information and communication technology [10]. The digital leader provides periodic and stable data and information that facilitates the planning and decision-making process and leads to access to high-level performance and organizational excellence that surpasses the performance of competing institutions. Digital leadership refers to the implementation and use of leadership approaches compatible with the digital age, including relying on modern technology platforms that require high standards of innovation [7].

Digital business models are enjoying great success, which can be attributed to driving force and e-force [27]. The push for innovation is reflected in two particularly relevant theoretical approaches in leadership research. First, the classic personality traits of a single leader led to leadership as a role in itself through their interactions in the social and organizational context. Second, leadership, similar to digital transformation, is increasingly understood as a process that involves all members of the organization [28]. In line with the formation of the new paradigm of digital leadership, creating fundamental changes in the characteristics of leaders and their competencies is also very important [35, 41]. In the era of digital transformation, the changing role of leaders requires a new set of competencies to be defined and presented for them to respond to the recent trends that have been formed in the wake of transformative technologies. Leaders have spent years developing their valuable skills, managing their professional network, and gaining first-hand experience and working hard in the face of failure, so that the current and at the same time fast challenges that are the result of digital transformation, increase the importance of their experiences and competencies. In this way, organizations are required to change their leadership paradigms by going through traditional processes to join the journey towards digital transformation to shape the new role of leaders as digital leaders to make digital opportunities a reality and coordinate this flow in the best possible way [41]. However, equipping leaders with the new competencies required by the digital age is an important challenge for organizations around the world. Because the transition to the new digital organization has created deep gaps in leadership. Today, digital leaders as one of the main factors that direct the flow of transformation, in order to guide their organizations in the direction of the uncertain future of the digital age [23], must have special competencies to move in sync with the ideas, beliefs and styles of the time [17].

Leaders have spent many years developing their valuable skills, managing their professional networks, and gaining first-hand experience, and have worked stubbornly in the face of failure; so that the current and at the same time fast challenges that are the result of digital transformation add to the importance of their experiences and skills.

Therefore, simply replacing your leadership team with digital millennial leaders will not be the answer to the challenges of the digital era. On the other hand, the current leadership styles are not responsive to the recent trends that have been formed following transformative technologies. One of the most important workforces are the leaders who manage the digital strategy, define the culture and provide a clear digital vision and roadmap for their employees [41]. Digital skills have the greatest impact on people's use of the Internet. Therefore, digital skills play a more decisive role in accessing and using mass communication tools such as the Internet and computers. Digital skills include operational skills (hardware and software skills), information skills (skills necessary to search, select and process information in computers and network resources) and strategic skills (the ability to use computers and network resources as a means for specific purposes in society) [24]. The digitalization of any organization requires a thorough review of the required digital skills. The use of computer tools, mobile devices and other hardware, the Internet, various software and other digital technologies is necessary for education [2]. Therefore, the need for employees who do not have special skills is rapidly decreasing. Because the rapid development of science and technology innovations increases the need for advanced training and acquisition of new skills during a career or perhaps even a fundamental change in career path. Skills such as having the modern digital technologies of work, life and the ability of a person to use information technology such as searching for information on the Internet, using office software, data processing and creating information technology services and resources are necessary for people [1]. Digital skills are defined as the ability to use information and communication technology in a way that helps people achieve useful and high-quality results in work life [19]. Researchers are looking to help companies change their labor market through digital skills training, promote internal acceptance of consumer goods and services, and gain consumer trust by providing information and awareness services through digital means and technology. Studies have shown that leadership and digital skills have an effect on organizational performance. Valizadeh, Zainali Aghdam [40] showed that digital leadership with dynamic capabilities, and business model innovation has a positive and significant effect on the performance of organizations. Nowrozi,

Nusrat Panah and Barani [33] also mentioned the relationship of digital leadership on organizational performance. Digital skills also have the greatest impact on people's use of the Internet. Therefore, digital skills play a more decisive role in accessing and using mass communication tools such as the Internet and computers. Digital skills include operational skills (hardware and software skills), information skills (search skills, selecting and processing information in computers and network resources (strategic skills) introduces the ability to use computers and network resources as a means for specific purposes in society [24]. Moharrami, Qasimzadeh Alishahi and Razzaghi [30] showed that digital skills have an effect on employee performance. Digital literacy improves employability because it is an entry-level skill that many employers ask for when they first evaluate a job application. Digital skills are those skills whose names are often used as synonyms and this means using FAVA, which collects, organizes, stores and publishes information, including audio, image, text, numbers, using computer and telecommunication tools, as a source of strength in organizations and an important factor in creating and maintaining organizational learning. According to Carquart, today, organizations that do not have digital literacy or the ability to use it, face a complete loss in terms of acquiring, storing and transferring knowledge. Because technology is effective in the quantity and quality of learning and speeds up the flow of information and data storage more than non-electronic methods [37]. Therefore, leadership and digital skills are one of the factors to improve and promote organizational performance. Digital leadership is also defined as a suitable platform for digital competence and digital culture that leads to change and benefit from digital technology [4]. Therefore, digitalization has been recognized as both a destroyer and creator of global jobs, leading to a profound transformation in job requirements. As a result, leaders must invest in upskilling employees in an effort to support and motivate employees in the face of steep learning curves and cognitive challenges. In addition, increased connectivity and information sharing helps break down hierarchies, functions, and organizational boundaries and finally, it leads to the transformation of task-based activities into project-based activities in which employees are required to participate directly in the creation of new added value. As such, the role of leadership has become critical to capture the true value of digitization, especially by managing and retaining talent through better outreach, communication and engagement with employees [18, 29].

Therefore, leaders must be responsible for addressing new ethical concerns arising from the dark side of digital transformation [25]. The dark side of digitalization affects relationships in business in a wide way [5, 3]. For example, digitization can be used to track financial transactions and ensure greater transparency. While new digital payment methods, such as those using blockchain technologies for digital currencies, can hide bribe payments [9]. New and emerging digital technologies that facilitate corrupt individual behavior and business practices are the dark side of digital transformation [13, 38]. Therefore, before engaging in ethical decision-making, leaders must first identify the existence of an ethical issue. Then make moral judgments by evaluating, exercising choices, and determining their moral intention to engage in moral decision-making. In such a digital environment, there is a need for ethical guidelines, which is digital ethics. Digital ethics are essential skills that must be developed systematically and in parallel with digital and technology. Therefore, leadership philosophies and leadership personality development programs should also consider ethical competence [16].

Digital ethics is a movement between social exclusion and legal prohibition to reach solutions that maximize the ethical value of digital transformation and innovations for the benefit of the organization and society. Digital ethics changes and corrects the use of digital skills and tools with an ethical approach by changing the levels of abstraction and ethical questionnaires from information-oriented to digital-oriented. Digital ethics through ethical actions lead to the design of a general ethical approach in relation to handling the entire cycle of information creation, sharing, storage, protection, use and possible destruction. The shift from information ethics to digital ethics requires a focus not only on what is perceived as the real immutability of our concerns, but also it is broadly interpreted on the public environment (infosphere), the technologies and sciences involved, the practices and structures involved (business), and the overall impact of the digital world. It is not the hardware that causes ethical problems, but what the hardware does to software, data, agents, their behavior, and their respective environments that creates new ethical problems. We need a digital ethics that provides a holistic approach to the whole world of ethical issues arising from digital innovation. Digital ethics is best known as a branch of ethics that studies and evaluates relevant ethical issues. Information and data (including generation, recording, monitoring, processing, dissemination, sharing and use), algorithms (including artificial intelligence, artificial agents, machine learning and robots) and related actions and infrastructure (including responsible innovation, programming, hacking, professional codes and standards), to formulate and support good ethical solutions (such as right behavior or right values). This means that the ethical challenges posed by the digital revolution can be mapped into a conceptual space drawn by three research axes: Ethics of data/information, ethics of algorithms and ethics of procedures and infrastructures [15].

Considering the theoretical support, it can be said that leadership and digital skills have an impact on organizational performance, and digital ethics can also bring positive consequences for the organization with its mediating role. The

digital leader can improve the performance of the organization by having up-to-date skills and competence in the field of technology, management skills, stubborn ability to face changes and having digital ethics. Businesses that deal directly with innovations and digital transformation need people who have digital skills and improve digital ethics and organizational performance with digital leadership. Unfortunately, little attention has been paid to digital skills, digital leadership, especially digital ethics in business companies. By searching among empirical studies, no study was found regarding digital leadership and digital skills, and business ethics on organizational performance. This study gap became a concern for the study of these variables, in addition to enriching the theoretical foundations and research background in line with the research variables, it aims to find if there is an effect between leadership and digital skills on improving organizational performance with the mediating role of digital ethics.

## 2 Methodology

In terms of implementation method, this research is part of a descriptive-correlational research. The statistical population includes all the employees and faculty members of Payame Noor University in Rasht, numbering 220 people that because of the small population and the possibility of sample loss, all people are considered as samples by the census method. In order to collect the information of this research, library study methods were used to collect the theoretical foundations and the experimental background of the research. In order to collect the required data from the studied sample, a questionnaire was used. In this research, the process of checking keywords and terms of research, downloading articles and theses related to the topic of the article, and noting information related to the research problem and research question were carried out. The tools include organizational performance questionnaire [21] containing seven components of ability, clarity, help, incentive, evaluation, credibility and environment, and digital leadership questionnaire [12]. It has 5 components and a researcher-made digital skills questionnaire. It also has 3 components (operational skills, information skills and strategic skills) and the researcher-made digital ethics questionnaire has three components (ethics of data/information, ethics of algorithms, ethics of procedures and infrastructure). Therefore, in this research, the validity was approved by the professors of the management group in the form of formal validity. The reliability of the questionnaires was obtained through Cronbach's alpha test for digital leadership 0.795, organizational performance 0.918, digital skills 0.711, and digital ethics 0.811 respectively. In order to analyze the data and findings of the research, questions and hypotheses have been examined at the two levels of descriptive statistics and inferential statistics. At the level of descriptive statistics, indices such as frequency distribution tables and charts were used, and at the inferential level, Pearson's correlation of the type of structural equations was used, and for calculations and statistical analysis, computers and Lisrel, SPSS software were used.

## 3 Findings

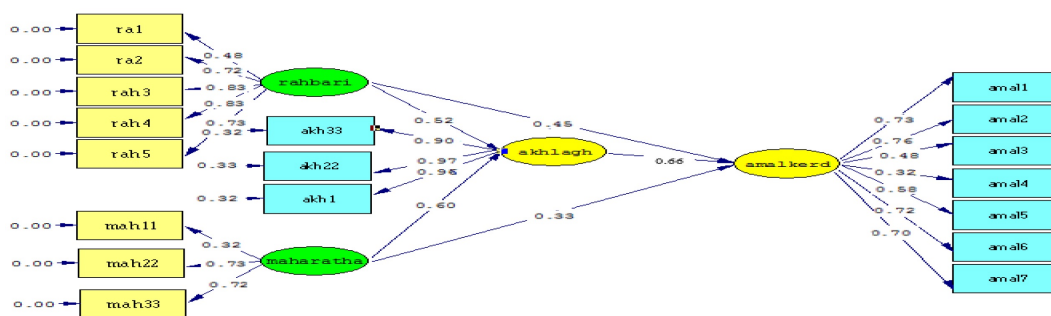


Figure 1: Research Variables in Standard Mode

The above diagram shows whether the research variables are related to each other or not. The obtained results indicate that since the factor loading of all variables is greater than 0.3, therefore, there is a favorable relationship between the research variables and they play an important and significant role in measuring the dependent variable.

Figure 2 shows the significance of coefficients between manifest and hidden variables. Since significance has been checked at the level of 0.05, if the t-value values or coefficients obtained are outside the range of  $\pm 1.96$ , the relationship is significant. The obtained results show that the t values are significant for all. Regarding the fit indices of the model, after removing the covariance errors, the examination of the fit indices show that the model has a good fit. The ratio of chi-square to degrees of freedom is 2.71. The root mean square error of approximation (RMSEA) is equal

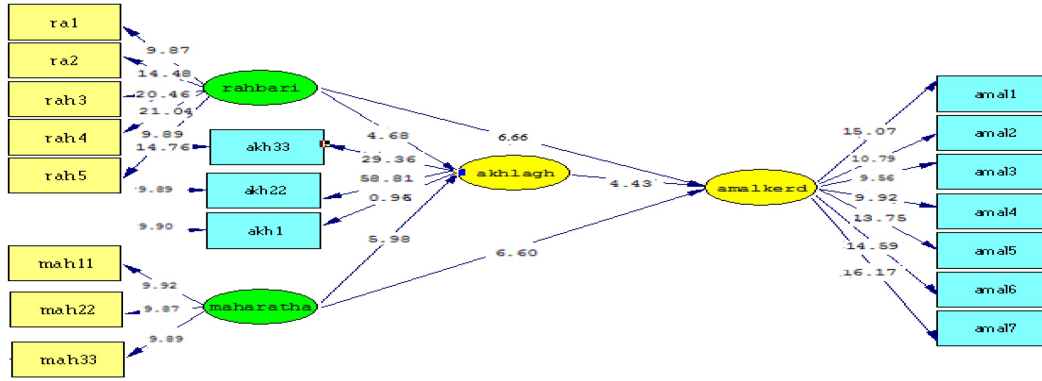


Figure 2: Research Variables in Significance Mode

to 0.04. Other goodness-of-fit indices such as goodness-of-fit index (GFI) and adjusted goodness-of-fit index (AGFA) were obtained as 0.92 and 0.93, respectively, which confirm the fit of the model. In the following, according to the information obtained from the results of Figures 1 and 2, the degree of influence of the independent variable on each of the dependent variables is presented according to the degree of influence of the mediating variable.

Table 1: Direct and Indirect Estimates

Estimation of variables	Standardized parameter	Standard error of estimate	t
Direct effect of digital leadership on business ethics	0.52**	0.001	4.68
The direct effect of digital leadership on organizational performance	0.45**	0.001	6.66
The direct effect of digital skills on business ethics	0.60**	0.001	4.48
The direct effect of digital skills on organizational performance	0.33**	0.001	5.98
The direct effect of digital ethics on organizational performance	0.31**	0.001	4.43
The indirect effect of digital leadership on organizational performance with the mediating role of business ethics	0.23**	0.001	3.61
The indirect effect of digital skills on organizational performance with the mediating role of business ethics	0.21**	0.001	3.68

In order to investigate the significance of the relationship between digital leadership on organizational performance and the mediating role of business ethics, the Sobel test has been used. In the Sobel test, normal estimation can be used to check the significance of the relationship. By having the estimate of the standard error of the indirect effect, the null hypothesis can be tested against the opposite hypothesis. The Z statistic is equal to the ratio of ab to its standard error. In other words, we get the Z-Value from the following equation:

$$\frac{0.55 \times 0.36}{\sqrt{(0.36^2 \times 0.077^2) + (0.55^2 \times 0.074^2) + (0.077^2 \times 0.074^2)}} = 3.11 \tag{3.1}$$

Considering a=0.05 and the Z value being higher than 1.96, it can be concluded that the observed indirect effect is statistically significant. In order to check the significance of the relationship between digital skills on organizational performance and the mediating role of business ethics, the Sobel test was used. In the Sobel test, normal estimation can be used to check the significance of the relationship.

$$\frac{0.55 \times 0.36}{\sqrt{(0.36^2 \times 0.077^2) + (0.55^2 \times 0.074^2) + (0.077^2 \times 0.074^2)}} = 2.54 \tag{3.2}$$

Considering a=0.05 and the Z value being higher than 1.96, it can be concluded that the observed indirect effect is statistically significant.

## 4 Discussion

The increasing importance of human resources and its role in improving the organization’s performance has required a lot of research on employee behaviors. A better-performing organization is an organization that achieves better results than comparable organizations in a long-term period of time through the ability to adapt to changes. Certainly, in

order to excel, organizations must first improve organizational performance [32]. Performance is so important that it affects all aspects of life [22]. Considering the importance of organizational performance, this study was conducted with the aim of investigating the effect of leadership and digital skills on improving organizational performance with the mediating role of digital ethics.

The results showed that digital leadership leads to organizational performance. In explaining this finding, it can be said that digital leadership creates compatibility between information technology strategy (online dimension) and business strategy in order to turn the uncertainty caused by the presence of technology into digital opportunities and opportunities into reality. Also, companies or organizations that encourage digital leadership in their workplaces have higher profit margins and revenue growth than others. Therefore, it improves organizational performance. Therefore, digital leadership through a thought leader, having a stubborn ability to face market changes and competition, with a creative and innovative mind that turns ideas into reality, is able to provide direction and become an orchestra in the transformation of digital business transformation. It has the ability to learn to deal with a complex and dynamic ecosystem due to fluctuations, uncertainty, complexity and ambiguity. It shows deep knowledge and understanding to interpret, assume and combine information in decision-making. As a result, it leads to the improvement of organizational performance. This finding is in line with studies [42] that investigated the role of digital leadership on performance and showed that digital attitude, digital literacy, adaptability and flexibility of leaders, agility and experientialism of leaders, and data-oriented thinking of leaders affect performance. As a result, digital leadership has an impact on organizational performance. The results showed that digital leadership leads to improving the use of digital skills. In explaining this finding, it can be said that digital leadership is a multitasking leadership style that has up-to-date digital knowledge, skills and competencies. They have high experience in managing fundamental and unexpected changes, they have special diversity management skills in the use of digital tools and media and technology. Therefore, they provide digital skills [4]. Citing this finding states that digital leadership is also a suitable platform for digital competence and digital culture that leads to change and benefit from digital technology. Also, digital leaders must develop an inclusive digital vision of the future and skills. In order to implement this possibility, it is necessary to pay attention to the implementation of this vision towards human-centered direction. Therefore, digital leadership also causes the use of digital skills. Referring to this finding, we can refer to the results of studies [11] which state that the digital leader must use a combination of hard and soft skills and hard skills such as the ability to express a strategic point of view fluently and coherently, apply tools to solve problems by identifying root causes across functions and making the intellectual decisions necessary to solve them and skills such as the ability to communicate and collaborate with a wide group of people, having patience to manage complex structures, especially in big businesses, the ability to challenge the status quo, having a charisma that inspires people and motivates the organization to advance changes. Also, studies of Ahlquist [6] regarding leadership and digital skills state that the skills and competencies considered in the development of digital leaders include having digital literacy<sup>14</sup>, which means the ability to quickly adapt to new technologies and emerging in three technical, cognitive and emotional-social dimensions; knowledge of digital tools and emerging technology platforms, ability to analyze digital content and sort them based on accuracy and quality in providing information, self-awareness, time management in line with the realization of agility.

The results showed that there is a significant relationship between digital leadership and digital ethics. In explaining this finding, we can refer to the studies of Hensellek [20] that digital leadership is concerned with ethics by increasing the level of respect, trust and influence in their followers. Because the digital leadership in the behavior and perspective of the organization is to observe respect, observe justice, pay attention to intellectual capital, maintain confidentiality, moral integrity, estimation of intellectual damage and observance of moral consideration, which are aspects of intellectual ethics, have been considered. Therefore, in this regard, it should be said that the digital leader obtains correct information and makes decisions based on the power of thinking, and they do not put themselves in the shackles of cumbersome formalities in their decisions. Rather, they prefer results over processes and tools, development of prototypes over excessive focus on documentation, rapid response to changes over blind adherence to a plan, and rapid collaboration over rigid contracts. Therefore, the digital leader observes intellectual ethics in his/her decisions and behaviors.

The results showed that digital skills improve organizational performance. Digital skills bring real benefits to companies, creating a mix of hard and soft skills, the ability to fluently and coherently express a strategic point of view, to use tools to solve problems by identifying the basic causes across functions and to make intellectual decisions to solve them. Skills such as the ability to communicate and collaborate with a wide group of people, having patience to manage complex structures, especially in large businesses, the ability to challenge the status quo, having a charisma that inspires people and motivates the organization and it increases organizational performance in this way. This finding is consistent with Zare Banadkouki [42]. Ahlquist [6] acknowledges that digital competencies include having digital literacy, which means the ability to quickly adapt to new and emerging technologies in three technical

dimensions, cognitive, emotional and social. Knowledge of digital tools and emerging technology platforms, the ability to analyze digital content and sort them based on accuracy and quality in providing information, self-awareness, and time management in line with the realization of agility. Therefore, digital skills can increase organizational performance.

The results showed that there is a relationship between digital skills and digital ethics. In explaining this finding, it can be said that the better the digital skills, the greater the cooperation between the leader and the employees. Also, confidentiality is maintained, people have the ability to articulate a strategic vision, ethical decisions are made, patience is adopted, the ability and communication between employees is enhanced, and respect is maintained. As a result, it affects business relations and ethical dealings in the organization. Digital skills through improving operational skills, information skills and strategic skills and respecting personal privacy, secrecy, maintaining respect affects the extent of data/information ethics, ethics of algorithms, ethics of procedures and infrastructure.

In this regard, Tumbas, Berente and Brocke [39] state that by considering this point that by bringing together human resources and technological resources, a successful digital transformation can be achieved. Whatever digital leaders' competencies such as risk-taking and acceptance of failure, setting clear and explicit goals, providing two-way feedback, arousing the internal motivation of people, clarifying the change and its consequences, effective management of interactions, Acting as a consultant to develop the atmosphere of the organization works more correctly. As a result, it can be said that digital skills have an effect on digital ethics. The higher the digital skills, the more ethical responsibility, accountability, ethical design, algorithm audit, favorable evaluation (such as investigating discrimination or promotion of unethical content), procedural ethics such as professional ethics, meeting requirements in obligations, and responsibilities are also observed. In this regard, the study of Koch [26] supports this finding. Because they believe that compliance with digital skills leads to the formation of professional codes in business strategies and policies in an ethical framework that these professional codes guarantee ethical practices in turn. Therefore, both the advancement of digital innovation and the protection of the rights of individuals and groups are preserved and strengthened. As much as the people of the organization have high digital skills, they have a deep understanding of the inner workings of the Internet. They understand that the standards and protocols are connected to each other by relying on hardware and software for the flow of information. Coding, maintaining, and updating Internet infrastructure, including applications and platforms, require compliance with ethical requirements. They also understand that the ethical audit of algorithms and the monitoring mechanism for algorithmic decisions are necessary, and they come to understand the ethical principles of the procedures hidden in the technology underlying the digital information flows of the Internet.

The results showed that there is a significant relationship between digital ethics and organizational performance. This means that digital ethics through data ethics, indexing, fair advertising, work group privacy, identification, group discrimination, building trust, fair support for employees in the digital space can improve the organization's performance. Ethics in procedures (such as professional ethics), ethical design and auditing of algorithms, evaluation of consequences, ethical framework for shaping professional codes, ensuring ethical practices, clarifying values, creating ethical atmosphere, monitoring mechanism for algorithmic decisions, ethical decision definitely affect the performance of the organization. Digital ethics governs the moral environment in the organization and the virtual business environment. It affects all work and non-work behaviors of employees, and cultivates talents and moralism. In such an ethical environment, all stakeholders such as customers, government, and employees are affected. Therefore, their performance improves. In reference to this finding, we can refer to the results of studies of Nakhchian [31] who showed that business activities in the digital field can be effective on organizational performance by observing ethical standards and removing unique restrictions. Compliance with ethics in the digital field in structural, behavioral, environmental fields and paying attention to ethical standards such as honesty, fairness, responsibility and commitment, adhering to commitments, maintaining trade secrets, etc. have many positive consequences that can lead to the improvement of the organization's performance.

In general, digital leaders need to drive business and operational goals to keep up with the changes and change their skills, behaviors and views according to these conditions. Today's digital conditions demand competencies and skills from leaders that must be combined with the roles. These roles consist of inspirational role (convincing others, ability to influence, strong positive feelings towards work and transferring this feeling to other colleagues, deserving trust, personal sacrifices), the role of innovation (anticipating events, positive thinking, skill and tact in interpersonal relationships and facilitating participation in decision-making), the role of adaptability (good judgment and action, frequent communication with others, adapting oneself to the environment, working together with others, the ability to network in order to layer resources and support stakeholders), the role of adaptation (knowledge and awareness of the information of the work environment, prioritizing activities, Deciding decisively and quickly, giving motivation), the role of dreaming (vision and imagination of the future, confidence, courage and self-confidence), the role of technological

intelligence, planning and accomplishing goals electronically, creating appropriate support and technical support for the use of information technology, digital literacy (creative thinking in the use of information and communication technology, and training in electronic resources and knowledge enhancement). Therefore, digital leaders must have digital competencies and along with these competencies, digital ethical standards and values should be observed in goals, procedures and algorithms to improve organizational performance. By observing digital ethics, digital leaders promote respect for human rights, support and dignity, respect personal privacy, and as a result, the performance of the organization increases.

Like any other research, there have been some limitations on the current research, which can help organizational researchers in better and more expressive use of the results and efforts to overcome possible limitations in future research. Among the limitations were the lack of theoretical foundations and three variables of digital leadership, especially digital skills and digital ethics. At the same time, since the research results indicated a significant relationship between digital leadership, digital skills and digital ethics, it is therefore suggested:

- It is recommended that leaders keep the promises they make by avoiding concealment and respecting confidentiality, moral integrity, in order to increase the level of trust of the followers, and also take care of the digital ethical standards in their behavior and actions.
- Leaders should pay attention to the necessary ethical considerations in performing an action by balancing the positive consequences of that action against the negative consequences, so that the followers in the digital space consider the leader's business as a model and act as a leader.
- It is suggested that the authorities provide very good job training opportunities. These opportunities are done through encouraging and persuading them for their job skills in the digital field and more performance.
- Digital leadership through digital enhancement and empowerment with computer literacy, information and communication technology literacy, digital competence and digital readiness, digital leadership itself among people, sharing skills, capabilities and capabilities of digital leadership among colleagues will improve the success rate of organizational performance.
- Up-to-date knowledge, skill and competence in the field of technologies, their design and change, along with the perceptive and human skills of leaders can be effective in promoting organizational performance.
- Improve digital ethics by strengthening skills and tact in interpersonal relationships and having a positive outlook on the future, the ability to influence, influence and persuade employees by maintaining a balanced relationship between human resources with ethics and organizational performance and respecting the principle of confidentiality.
- Constantly put ethics and institutional moral values in digital ethics at the top of their work. Managers should observe digital ethics in their personal and organizational lives and reward ethical employees with awareness of digital ethics (internal-external reward) and try to institutionalize ethics in the digital space of the company or organization, because the survival and absence of trauma of any person in the digital space has an undeniable link with ethics.

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