

# Transformational Practices of Academic Leaders in Universities: Suggestions for Improvement

Abdelsalam F. ALAwAmRAh<sup>1</sup>, Najwa A. Darawsheh<sup>2,\*</sup>, Hanadi Alrashdan<sup>2</sup>, Nadia H. Ghalia<sup>3</sup>, Mawaheb Mustafa<sup>4</sup>, Alham Darawsheh<sup>5</sup>, Hiyam Abu Reya<sup>3</sup> and Tahani I. Alali<sup>6</sup>

<sup>1</sup>Foundation of Education, The University of Jordan, Amman, Jordan

<sup>2</sup>Department of Educational Foundations and Administration, Faculty of Educational Sciences, Jadara University, Irbid, Jordan

<sup>3</sup>Ministry of Education, Sakhnin- Sakhnin

<sup>4</sup>Ministry of Education, Daliat al-Carmel, Daliat al-Carmel

<sup>5</sup>Ministry of Education, Arraba, Arraba

<sup>6</sup>Department of Educational Foundations and Administration, Faculty of Educational Sciences, Amman Arab University, Amman, Jordan

Received: 21 Sep. 2023, Revised: 22 Sep. 2023, Accepted: 27 Sep. 2023.

Published online: 1 Oct. 2023.

**Abstract:** The study aimed to identify the transformational practices of academic leaders in Jordanian universities: proposals for improvement. The qualitative approach was adopted, and interviews were conducted with (30) faculty members from Jordanian universities. The results of these interviews showed that the faculty members presented five proposals to improve the transformational practices of academic leaders. It included: Jordanian universities' efforts to develop digital infrastructure and activate it within their centers and administrative and organizational structures, and universities' efforts to provide modern electronic and technical platforms that suit the requirements of workers and suit their current technical skills, and Jordanian universities' efforts to encourage workers to accept the change taking place in university work environments. It is adopted in all practices without exception, directs universities to increase financial allocations concerned with digital transformation in all its forms, and universities adopt mechanisms that develop the technical skills of workers in Jordanian universities. The study recommended activating and enhancing transformative practices among academic leaders in universities.

**Keywords:** Transformative Practices, Academic Leaders, Jordanian Universities, Proposals for Improvement.

## 1. Introduction

Universities are considered among the most important educational institutions that have an important role in achieving the general goals, which were planned within modern educational strategies, as they represent a major core in the operations carried out by highly qualified academic leaders, which in turn depend on effective and successful performance in them in order to achieve university educational goals, as the massive transformations that are taking place in the university environment need at the present time to keep step with them in the best way that suits the requirements of individuals and groups, and this requires following leadership patterns by individuals working within the university work environment who have a role in development and reform processes.

The university represents the infrastructure for the formation and development of various economic and social activities, to prepare productive human resources, which will benefit the university, with the aim of catching up with the distinguished, creative and entrepreneurial productivity [1].

Digital transformation is one of the concepts that has gained the attention of researchers, scientists, and men of science and knowledge [2]. Which has become a basic requirement for all individuals working in institutions [3].

Digitization is critical for higher education institutions in order to attract more and better students, improve experiences and develop educational materials [4]. Therefore, universities have recently turned to technology directly, depending on a qualitative shift where technology is seen as a complex and interconnected environment that allows and enhances digital learning [5]. Which helps organizations of all kinds move to a new business model that works on digital technologies in innovation and services [6].

University environments are among the institutions that have benefited from digital transformation. Digital transformation has been employed in all its various forms in administration and education, which has helped their success and advancement in universities [7].

\*Corresponding author e-mail: najwadarawsha@gmail.com

Because university administration is the effective tool that seriously seeks to bring about effective development in the performance of the administration, faculty members, and students [8]. By responding to digital and technical changes and developments in the work environment [9].

The Hashemite Kingdom of Jordan has been interested in developing its educational policy based on the Kingdom's Vision 2030, which aspired to develop the educational system in all its educational stages. Education and the development of educational policies in a way that serves the education system in line with the digital age (Kingdom's Vision 2030) [10].

[11] Al-Zyoud (2023) praised that digital transformation has become an urgent necessity that educational institutions seek to consolidate and perpetuate, and educational technologies and digital platforms are no longer an idea, but rather a practice and a necessity for the educational and learning process, and universities must take advantage of digital technologies in a way that improves and improves educational processes and practices, in a way that enhances experience. The learner and the professor, support the creation of effective educational models with a lasting impact, as the digital transformation in universities helps them to work more effectively, to remain competitive in global rankings and accreditations, and to succeed in preparing the learner for digital work environments.

Therefore, universities need educational leaders capable of making change in a positive way [12]. They have a clear and specific vision that is compatible with the basic needs and desires of university workers [13]. It keeps pace with cognitive openness and a technological revolution in all fields practiced by the individual [14].

The Global Knowledge Index Report (2021) revealed that Jordan ranked (103) globally out of (145) countries, and this was due to a decline in the sub-indicators concerned with higher education, technical education, and pre-university vocational training [15]. The Jordanian Strategies Forum recommended that universities consider applying international best practices and recent changes, the most important of which is to move from teaching to learning, from research to innovation, from service to integration, and to provide the necessary supplies to help faculty members to carry out the required digital transformation in education [16].

Keeping in step with change and innovation in higher education institutions has become a necessity to improve and compete with the quality of their outputs [17]. This may be embodied by Jordan's interest in digital transformation through the e-government strategic initiative for digital transformation in 2001 under royal patronage, as part of a series of development initiatives and projects adopted by the Kingdom to achieve sustainable development and development in all aspects of life [18].

Various and multiple modern concepts have emerged that need attention in the field of education at Jordanian universities without exception, and the concepts within it included a set of developments in all fields of work and university education [10], where workers began to practice their work and duties using modern technologies that highlight their talents, creativity and abilities lurking through it [19].

Academic staff members have an effective and influential role in the educational system at universities, by seeking to use their scientific and practical competence and employ them in the course of the educational process in a correct and effective way [20]. Therefore, they must take all the necessary procedures and measures that improve the learning and teaching processes and achieve the general educational goals of all successful universities, and strive for development, change and comprehensive reform of all different aspects, in order to keep pace with changes and new developments in university work environments [21].

[22] definition digital transformation as: "a transitional process from the traditional system to the electronic system that is characterized by intelligence in all the work of organizations and requires developing a strategy to spread the culture of digital transformation". As for [23], they defined digital transformation as an institutional change that is realized through digital technologies and business models, with the aim of improving the practical performance of the institution. The researchers conclude that digital transformation is the gateway to the world of modern technologies, activating links and increasing electronic interactions in the university work environment between workers and others.

Transformational Practices great importance in the success of the educational process and its continuous development for the better. It also helps universities keep up with the digital developments that occur in educational environments. It also plays a vital role in directing them due to what it causes in raising the level of scientific and technical production processes and increasing loyalty and belonging, commitment and participation and increasing human and social ties [24]. It also assists universities in planning all related activities to formulate their mission, define their goals, mobilize the necessary resources, formulate their strategic and technical plan, defend their individual and collective interests within the framework of joint responsibility, increase job satisfaction, loyalty, belonging and motivation towards working seriously, achieving the desired goals, and keeping following step with modern developments [25].

Transformational Practices is characterized by its ability to raise the level of universities and improve their efficiency,

improve performance and results at work, coordinate and improve pedagogical and learning practices, provide modern and diverse creative and oriental services that suit the capabilities and skills of workers, and provide an organized, thoughtful and integrated digital policy related to analyzing the internal and external environments, and formulating an appropriate strategy, applying it, and evaluating it in light of analyzing the impact of important variables on it [26]. This ensures achieving advantages for the university and maximizing its achievements in its various activities that are consistent and keep pace with the developments of the current technical era, improving cooperation, partnership and consensus, strengthening positive behavior, creating qualitative changes in the patterns and levels of educational service, and achieving satisfaction and harmony in university work [27].

Among the most prominent advantages of **practices** transformation are the following.

- **Strategic planning for Transformational Practices:** universities carry out planning processes for all their administrative and educational goals, the results of which are reflected in university outcomes, and in order for universities to be able to perform their work successfully, they must take into account the provision of the necessary material and human capabilities, and provide the appropriate atmosphere in favor of the educational process in all its aspects, and integration between all the administrative and technical processes of the educational process, and the predominance of good human relations among all workers [28].
- **Preparing competencies in the field of Transformational Practices:** The leader is considered directly responsible for all administrative and educational processes in universities, and the nature of his work is directly related to his fellow workers and students. He sits at the top of the functional hierarchy, which is the main engine of the institutional organization, and he has to take care of the administrative side, and apply good management standards in order to serve and develop his skills first and then others, since leaders are the basis of the educational environment that they must rely on in achieving the university's mission, and in the educational system's endeavor to achieve its goals and requires them to adopt a method of teamwork, invest in the capabilities and expertise of human resources, and ensure continuous improvement and development to improve the quality of educational outcomes [29].
- **Developing the skills necessary to implement the Transformational Practices:** Universities bear a great responsibility in developing these skills necessary to implement the digital transformation within them, by following the appropriate strategies, employing all available methods and providing the means to help them, to achieve the success of the educational process, and for the correct understanding and increase motivation for technical learning. And it must work on and motivate them to perform their roles efficiently and effectively, and provide a university environment dominated by trust, appreciation, cooperation and participation, to develop institutional organization, raise efficiency and productivity and achieve goals [30].

The researcher concludes, through their study of the reality of transformational practices in Jordanian universities, that it represents a set of technical events and activities that are carried out by more than one individual in a way of participation and understanding in order to achieve the goals. The negative factors on them as a result of their acceptance of the change in their work environment, and their awareness of the dangers and problems that they may be exposed to, and they explain their role in solving the problems that they may face, and their role in keeping pace with the changes that have taken place, and facilitating the process of achieving goals, and developing human relations between workers and leaders, and between employees themselves, knowing the needs and requirements of workers and striving to achieve them.

Many studies in the field of transformational practices in educational institutions, such as the study of Al-Sufiani [31], the study of [32], [33] [34] also recommended the need to pay attention to institutional support for transformational practices in universities through interest in continuous development and innovation.

The results of the study [35] concluded that universities lack effective leadership, changes in culture, opposition to change, and insufficient degree of innovation and financial support. and the study of Al-Balushil, Al-Harassi, and Al-Awfi [36], which concluded that institutions make clear efforts and roles for transformational practices, such as awareness, education, training, integration, and readiness. and the study of Al-Balushi [37], which concluded that institutions make clear efforts and roles for transformational practices, such as awareness, education, training, integration, and readiness.

The study of Zabi and Baatish [38] concluded that there is a strong correlation and influence relationship between the dimensions of strategic leadership and transformational practices, and this was reached from the direct interview with the strategic leader represented in the person of the university president who influenced the results of the study with many instructions and analyzes on the results, obtained.

**Commenting on previous studies:** These studies were used to develop an information collection tool, identify its

results, compare them with the results of current research, use appropriate statistical treatments, and support some opinions related to the theoretical framework. Therefore, the current study is distinguished from previous studies in that it studied transformational practices among leaders in Jordanian universities: Suggestions for improvement.

## 2. Study problem

University environments are exposed to many urgent changes that prevent them from achieving their goals, and they also need to keep pace with the developments of the current era. Although universities seek to join the procession of technical knowledge and the technological revolution, they still suffer from some problems that limit the achievement of their goals in the desired manner.

Through the presence of researchers in the field of Jordanian universities, it became clear that working individuals need to practice transformational in their practical, administrative, educational, leadership and supervisory practices with all effectiveness to ensure the achievement of goals. This is because university work environments are naturally exposed to some emergency circumstances that require strategic planning and sound decisions in order to Solving problems through scientific methods, and from here the need emerged to know the practices of transformational and its application within universities, and its role in reaching the top of the pyramid in levels of performance and production, because of its great importance in achieving the goals and mission of universities and their current and future educational vision, so this study came from In order to reveal the transformational practices among academic leaders: proposals for improvement, by answering the following main question:

What are the Suggestions for improvement of transformational practices of academic leaders at **Jordanian** universities from the faculty member's point of view?

**Study Objectives:** This study sought to identify Suggestions for improving transformational practices among academic leaders, with the aim of shaping positive trends and their relevance to the reality of Jordanian universities.

### Importance of studying

It is expected that the following will benefit from the results of this study:

- For universities, it will provide them with feedback on proposals to improve digital transformation practices among leaders in Jordanian universities, which will help universities achieve their current and future goals.
- For faculty and administrative staff, they will have recent studies whose results and recommendations can be used in order to achieve the required goals and accept contemporary changes.
- Decision makers will have a valuable reference that they can refer to at the time of need with ease.

### Idiomatic and idiomatic definitions:

- **Transformational practices:** Ibrahim Haddad [39] defined it as: “the use of technology in government institutions and agencies and the private and public sectors.” Transformational practices is defined procedurally in this study as the use of digital technologies in the educational process in order to add new knowledge in business that takes the nature of digitization and excellence. Through the response of the study sample to the study tool (interviews).
- **Jordanian universities:** In this study, they mean the Jordanian public and private universities affiliated with the universities of the northern region of Jordan, namely: (Yarmouk University, Jadara University, Irbid National University), for the second academic year (2022/2023).

**Study limits and determinants:** This study was limited to a sample of faculty members in Jordanian universities for the academic year (2022/2023). This study was limited to their response to the study tool, and its psychometric characteristics of validity and stability.

## 3. Methodology of the study

**Study Methodology:** To achieve the objectives of the study and to answer its questions, the qualitative approach was used, as this approach is considered the most appropriate method used in such a study, as it is done by collecting data by conducting interviews on a sample of faculty members in Jordanian universities, then tabulating and analyzing it.

**Study population:** The study population consisted of Academic faculty members at Jordanian Universities in Irbid governorate in Irbid governorate, which numbered (1426) faculty members, according to higher education statistics for the academic year 2022.

**Study sample:** A random sample of (30) faculty members in universities located in Irbid governorate was chosen to conduct interviews with them to answer the study question.

**Study tool:** Interviews were conducted with a sample of (30) faculty members in Jordanian universities in Irbid governorate, to reveal Suggestions for improving transformational practices among leaders in Jordanian universities, by asking direct questions to the member and recording them on a device. The researcher then tab the notes, writes them down and analyzes them.

**Study variables:** the digital transformation of leaders in Jordanian universities.

**Statistical methods and treatments:** To answer the study question, a series of interviews were conducted with faculty members, and then the content of these interviews was analyzed, and frequencies and percentages were extracted.

## 4. Results and Conclusion

To answer the study question, which states: What are the Suggestions for improvement of transformational practices of academic leaders at **Jordanian** universities from the faculty members' point of view?

To answer this question, the content of the interviews conducted with (30) faculty members from Jordanian universities in Irbid governorate was analyzed, and they were chosen intentionally by six from each university to ensure the representation of all universities. The content of the paragraph was adopted as a unit of analysis, and after coding and compiling the answers, the researchers came up with proposals to improve transformational practices in Jordanian universities as follows:

1. **The first suggestion:** Jordanian universities seek to develop the digital infrastructure and activate it within their administrative and organizational centers and structures: This suggestion was made by (30) faculty members from the interview sample, (%100) of the sample.

The researchers attribute this to the workers' feeling of weakness in the available digital information and data, the difficulty of dealing with modern technology, and the presence of many recurring problems that hinder the achievement of goals in the work environment.

2. **The second suggestion:** Universities seek to provide modern electronic and technical platforms that are compatible with the requirements of workers and suit their current technical skills: This suggestion came in one form or another on the lips of (27) of the interview sample,... (%90) of the respondents.
3. **The third suggestion:** Jordanian universities seek to encourage workers to accept the change in university work environments and adopt it in all practices without exception: This suggestion came in one form or another on the lips of (23) of the interview sample, i.e. (67%) of the respondents. the sample.

The researchers attribute this result perhaps to the fact that the university environments lack awareness leaflets about the culture of digital transformation, the workers' fear of recent changes, their resistance to change, their maintenance of the routine method, and their inability to quickly adapt to technical developments.

4. **The fourth suggestion:** Universities tend to increase financial allocations for transformational practices in all their forms: This proposal came from (20) of the interview sample, i.e. (66%) of the respondents.

The advent invest ins suggestion may be attributed to the absence of the role of financial oversight in university work, in addition to the financial deficit suffered by Jordanian universities, poor financial planning, poor infrastructure, and the failure to invest the available resources properly.

5. **The Fifth suggestion:** Universities adopting mechanisms to develop the skills of technical workers in Jordanian universities: This suggestion came from (15) individuals from the interview sample, i.e. (50%).

This proposal may be attributed to the lack of technical competencies, the failure to develop the skills and capabilities of the workers and their preservation of the status quo, and their inability to harmonize with the technical reality and the formality of the technology that they apply in universities.

The results of the current study are consistent with the results of the study of [38], and the study of [37], which studied the reality of transformational practices.

The researchers conclude that transformational practices is part of the modern technical policies that must be adopted, which are concerned with applying policies, implementing drawn plans, achieving set educational goals, supervising and controlling them to ensure proper implementation, training workers and students through them on skills, developing attitudes and values, and accessing correct scientific facts to facilitate the transfer of educational experiences, technology and exchange.



## 5. Recommendations

Based on the results of the study, the researchers recommend the following:

- Providing a supportive environment that is flexible and responsive to local and global changes and developments.
- Activating and developing digital transformation practices and promoting them among leaders in universities.
- Adopting transformation practices in all life activities in university work.
- Developing mechanisms for continuous evaluation of digital practices in universities, identifying strengths and weaknesses, identifying strengths and restricting support in a timely manner.
- Conducting more studies and research related to transformational practices in Jordanian universities.

## Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

## References

- [1] Al-Hatamleh, H, Al-Darawsheh, N. (2019). Institutional performance and its role in improving the productivity of private universities in northern Jordan, *Studies Journal, Educational Sciences*, 46 (2), 537-523.
- [2] Al-Juhani, H. (2019). *Electronic leadership in light of information and communications technologies*. Al Rushd Publishing Library.
- [3] Hero, L. (2020). Exploring the Principal's Technology Leadership: Its Influence on Teachers' Technological Proficiency, Online Submission, *International Journal of Academic Pedagogical Research* ,4(6):4-10.
- [4] Han, D. .(2016). University education and contents in the fourth industrial revolution. *Humanities Contents*, 42(9), 9-24.
- [5] Mahlow, C., & Hediger, A. (2019). Digital Transformation in Higher Education Buzzword or Opportunity? *ELearn Mag*, (5), 13.
- [6] Al-Bar, A & Marhabi, K. (2018). *Digital transformation how and why? Digital transformation* [https://www.awforum.org/index,\(2018\)](https://www.awforum.org/index,(2018)).
- [7] Al-Shehri, A. (2018). E-leadership: a proposed practical approach. *Journal of Economic, Administrative and Legal Sciences*, 2 (9), 39-67.
- [8] Darawsheh, N. (2020). The Role of University Administration in Enhancing Intellectual Security Among Yarmouk University Students, *Journal of Education and Training Studies*, 14(4),101-112.
- [9] Draissi, Z. & Yong, Z. (2020). COVID-19 Outbreak Response Plan: Implementing Distance Education in Moroccan Universities, School of Education, Shaanxi Normal University, *hnology*,1 (5),11 .
- [10] Al-Otaibi, D. (2020). *Strategic leadership to improve institutional performance in Saudi educational departments*. Al-Rushd Library: Riyadh.
- [11] Al-Zyoud, M. (2023). *Universities and Digital Transformation "Dialogue in Jordanian"*, retrieved from the source on 8/7/2023 <https://news.ju.edu.jo/Lists/News>.
- [12] Jami. V.(2017).The relationship between digital leadership and digital implementation in elementary schools, *Doctor of Education*. The Faculty of the Graduate Education Department, Southwest Baptist University.
- [13] Al-Bar, A. (2018). *Digital transformation techniques, consulting towards technical business*, King Abdulaziz University, College of Computers and Technology.
- [14] Darawsheh, N. (2023). The Impact of Cyber Bullying on the Psychological Well-being of University Students: A Study in Jordanian Universities, *Information Sciences Letters*: 12 (8), 2757-2768.Available at: <https://digitalcommons.aaru.edu.jo/isl/vol12/iss8/26>
- [15] *The official website of the e-government*, (2023). The Hashemite Kingdom of Jordan, <https://jordan.gov.jo/2023>
- [16] Jordanian Strategies Forum 2021, <https://www.jsf.org/2021>

- [17] Al-Taie, Y. (2019). The impact of digital leadership on the adoption of organizational culture among employees working in the Directorate of Education of Al-Najaf Governorate, Iraq, *Journal of Economic, Administrative and Legal Sciences, National Research Center Gaza*, 3 (6), 19-39 .
- [18] Ministry of Digital Economy and Entrepreneurship. (2022). *E-government management and operations*. <https://modec.gov.jo/EN/Pages>.
- [19] Al-Satouri, A and Al-Jimabi, J. (2022). *general teaching methods*. 3rd Edition, Amman, Jordan, Dar Amjad for Publishing and Distribution.
- [20] Abhijit, G. (2014). Corruption in a university in West Bengal. India, *International Journal of Multidisciplinary Approach & Studies*, 01(6) Nov-Dec .
- [21] Al Twaim, H. (2019). The degree of application of digital leadership in the Ministry of Education and its relationship to the development of administrative work from the point of view of educational leaders, *Journal of the Faculty of Social Work for Social Studies and Research, Fayoum University - Faculty of Social Work*, 16 (1), 60-140.
- [22] Amin, M. (2018). Digital transformation in Egyptian universities as a requirement to achieve the knowledge society, *Journal of Educational Administration, Faculty of Education, Damanhour University*, (19), 11-117, p45.
- [23] Seres, L., Pavlicevic, V. & Tumbas, P. (2018). Digital Transformation of Higher Education: Competing on Analytics. Proceedings of INTED2018 Conference, held in Valencia, Spain, 5th-7th March 2018, pp. 9491-9497, DOI: 10.21125/inted.2018.2348.
- [24] Kelly, A. (2018). Teachers ' Perceptions of Principal Digital Leadership Behaviors That Impact Technology Use in the Classroom, *PHD, Dissertation*, Dallas Baptist University.
- [25] Al-Fadhli, M. (2019). *Leadership challenges in the digital world. The First Regional Conference on Development Leadership in the Digital World (Leadership - Technology - Sustainable Development)*, Saudi Arabia.
- [26] Al-Taie, Y. (2019). The impact of digital leadership on the adoption of organizational culture among employees working in the Directorate of Education of Al-Najaf Governorate, Iraq, *Journal of Economic, Administrative and Legal Sciences, National Research Center Gaza*, 3 (6), 19-39.
- [27] Strycker, J. (2016). Utilizing a Simulation within an Online School Technology Leadership Course, *Online Learning*, 20(1):130-144.
- [28] Shtaywa, F, and Alyan, R. (2014). *Educational Technology Theory and Practice*, 2nd edition, Amman, Jordan, Dar Safaa for Publishing and Distribution, (2014).
- [29] Abdul Nasser, M & Qureshi, M. (2011). The contribution of electronic administration to the development of administrative work in institutions of higher education - a case study of the Faculty of Science and Technology, University of Biskra, *Algeria, Researcher Magazine*, Issue 2.
- [30] Stukalina, Y. Management of higher education institutions: Searching for the ways to gain competitive advantage, *Economics and Culture*, 12, 87-98, (2015).
- [31] Al-Sufiani, B. (2018). A proposed model for digital educational transformation based on a study Actual challenges faced by educational institutions. *University Performance Development Journal*, (2(6), 47-29.
- [32] Midani, M & Talhawi, Z. (2018). The reality of the higher education and scientific research sector in countries Al-Arabiya, *Al-Istiqlal University Journal for Research*, 1 (3).
- [33] Al-Sayed's, k. (2022). *The Reality of Digital Transformation in Jordanian Universities from the Administrators and Faculty's Members Perspective.*, Unpublished master's thesis, Middle East University, Jordan.
- [34] Alrashdan; H., Al Ajmi; M. S. Alnasraween; & Karra, S (2022). Efficiency Determinants of Educational Wastage Programs. *Journal of Education and eLearning Research*, 9(2): 79-86.
- [35] Rodríguez-Abitia, G. & Bribiesca-Correa, G. (2021). Assessing digital transformation in universities. *Future Internet*, 13(2), 52.
- [36] Al-Balushi, NI, Al-Harassi, N and Al-Awfi, A. (2020). The reality of digital transformation in Omani institutions, *Journal of Information and Communication Studies*, 1 (12), 1-15.
- [37] Al-Balushi, NI, Al-Harassi, N and Al-Awfi, A. (2020). The reality of digital transformation in Omani institutions, *Journal of Information and Communication Studies*, 1 (12), 1-15, (2020).

- [38] Zabi, S, and Baatish, S. (2021). The role of strategic leadership in achieving digital transformation: a case study at Mohamed Boudiaf University in M'sila, *Journal of Advanced Economic Research*, 6, (1), 144-164.
- [39] Ibrahim, M, and Haddad, B. (2018). Business establishments and digital transformation, *Egyptian Journal of Information - Computer*, (21), 25-32, (26, 2018).