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The Degree of Academic Leaderships Practice in Universities for the Dimensions of Strategic Digital Leadership

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Abstract

The study aimed to identify the degree of practice of academic leaderships in Omani universities for the dimensions of strategic digital leadership and knowledge of electronic practices in reality, the study used the qualitative and quantitative descriptive approach, so it used the interview tool to know the electronic practices by application on (50) male and female academics, and the questionnaire tool to measure the degree of practice by application on (130) male and female academics. The study reached the following results: There are many electronic digital practices that are practiced by academics in universities, and these practices varied between business and purely administrative and educational tasks, where the study showed that the level of practice of academic leaders in Omani universities to strategic digital leadership dimensions came in most of its terms in large and very large degrees, and this indicates the scientific and technical awareness of these leaders. The order of these dimensions was as follows: In the first place came after the digital learning culture with an arithmetic average of (4.02), and came third after digital citizenship with an arithmetic average of (3.37), the study also confirmed the absence of statistically significant differences in the degree of leadership dimensions depending on the gender variable

Keywords: Academic: leaderships Omani universities, digital leadership, dimensions of digital leadership

Introduction

The world has recently witnessed rapid changes that covered all different aspects of life, especially the technological aspect, which has brought about radical changes in all areas of life, It has led to a change in the patterns of living in its various economic, political, social and scientific forms, the role of technology in all areas of life is an important role in creating civilizational development and security stability, It seeks to abolish temporal and spatial barriers between individuals and countries around the world, and it plays a major role in transforming the world into a small tied sides village, The way in which the practiced work is led and accomplished is very important, as leadership is one of the most important human practices that contribute to the organization of institutions and businesses, and technological developments have included all leadership styles, and brought about many different administrative changes.

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Educational and teaching institutions, especially universities, whether at the regional or global levels, are facing a set of changes and updates that Arab and Western societies have not witnessed towards progress and prosperity, which is based mainly on the principle of information and big data, modern technologies and global Internet networks have increased at high levels; It affected the progress of the teaching and learning processes in all countries of the world, but forced them to reconsider towards administrative educational policies and the tools and means used in the management of higher education by academic leaders in these universities, which were previously based on some traditional means and tools, provided that they use the latest modern technological means of communication. Which may be used in order to adapt and cope with the new work environment in the modern era, which is mainly based on a set of operations, data and huge information (Ziyada, 2021)

Therefore, these institutions tended to think about providing the required skills for their human resources so that they are capable and highly qualified, to meet the contemporary challenges facing them in this era, provided that the planned selection is made according to effective planning that contributes to achieve the competitive advantage, and working to ensure the survival and continuity of these institutions in order to provide the distinguished and required services according to the labor market and modern development, and therefore it must work to keep pace with development and modernization for continuous improvement, so that it can stand in the face of changing and accelerating challenges in this era, and it must work to seize the available opportunities, through organized attention to administrative systems and processes practiced by its human cadres and work to qualify them with a qualified digital leadership and polished with the most important skills and capabilities and modern methods (Al Kardam, 2020)

The success of any attempt to raise the quality of education does not depend only on the development applied programs, but rather requires in advance the improvement of effective leadership in these institutions, good education needs effective leadership to achieve excellence (Safaa and Majdi, 2014), therefore, digital leadership is considered a modern contemporary entrance in modern administrative systems, and it is essential, to develop and modernize the academic leadership in universities, eliminate their recurring traditional problems, and improve the performance of work in higher education institutions by using new digital methods that are efficient, effective and required speedy according to the modern era, It also has broad effects that are not confined to its technological dimension only represented in digital technology, but also go beyond that in its administrative dimension represented in the development of concepts and administrative functions, in addition to providing a high degree of transparency and clarity, which improves the confidence of education workers and pushes them to positively participate in planning programs, financing, evaluating and reforming the educational process that they carry out, including mandatory reform (Sadran, 2021), and this is what Al-Azzawi (2010) emphasized the need for higher education institutions for a conscious digital leadership.

Digital leadership is of great importance in increasing the quality of education and developing it in accordance with recent developments, especially with the entry of digitization into university communities in higher education institutions, this is what Excel et al (2019) and Lindqvist and Peterson (2019) agreed upon. The success of digital transformation depends on the availability of possibilities, the most prominent of which is the presence of digital leadership that initiates the creation of new work patterns and the adoption of leadership methods open to change (Al Rayes, Al-Afifan, 2022). Digital leadership represents an innovative leadership behavior that combines leadership style in the modern sense and the use of digital technology,

to increase the effectiveness and efficiency of work in the digital age and to facilitate and develop work in accordance with recent developments and emergency conditions in the educational field (Zhu, 2015).

Digital leadership has a set of basic pillars on which it rests, and it forms an integral part of the culture of all educational institutions - and it can be improved or enhanced through the purposeful use of digital technology, they are constants and pillars since their establishment and practice various forms and styles. Hood (2019), Katli (2019), Sheninger (2019), and Al-Nusour and Al-Khalifa (2020) have identified them as follows;

The insightful vision that predicts the future and what is being done in the success of all operations practiced by the institution, and a good way of thinking based on the determinants of the modern era and the urgent changes that the institution may face in the same matter, and the field of appropriate communications with a strong and extensive infrastructure in all the surrounding and related domains, and flexibility and simplifying the matter and not complicating the bureaucratic system used by some leaderships, and governance in all its modern forms according to the era in which it is applied, the convergence of multiple technologies in various forms and types, focusing on the new and modern in this field, and building cooperative work teams where cooperation, fraternity, honesty, friendship and consideration at work , and communicate with peers on an ongoing basis and take all opinions and ideas in order to innovate and encourage it, and highlight technical skills and encourage them to use them.

Many recent Arab and foreign studies emphasized the importance of digital leadership, and the need to apply it to the levels of education in schools and higher education in universities, colleges and scientific institutes, because it brings about a unique qualitative leap in the process of organized education and systematic administrative work, the studies that dealt with this include the following;

The study of Al-Rayes and Al-Aifan (2022), which aimed to identify the professional development needs of school leaderships in public education schools in Kingdom of Saudi Arabia in light of the dimensions of digital leadership, the study used the descriptive survey method, and the questionnaire was a tool that was applied to a sample of (362) school leaderships who applied the future gate system in five educational departments for boys and girls, the study reached the following results: The study confirmed that there is a need for professional development for school leaders to a medium degree for the applied sample to it on the dimensions of digital leadership in general, Where the managing digital transformation dimension in the foreground, and came in second place after thinking, then came after technology, and came last after communication, identifying the degree of practice of academic leaderships in Omani universities to strategic digital leadership dimensions from the academics' point of view.

As for Mahmoud's study (2022), it aimed to propose a list of the most important practical practices of digital leadership in Egyptian schools in light of the standards of the International Society for Technology in Education for educational leaders. The study used the descriptive analytical method, and the questionnaire as a tool for an opinion poll by applying it to a group of professors of educational administration in universities, and The study yielded the subsequent findings: One of the most important criteria upon which digital leadership is built is the following: Equity and citizenship: by making sure that all students have skilled professors that actively use technology. The planner with vision: that he participates , all employees in the

formulation of the strategic vision and the continuous evaluation of the practice of the teaching process using technology ,The potential leader is able to create a culture that enables teachers and students to use technology in innovative ways to enrich the teaching and learning process. Systems designer: through the ability to form teams by adopting good systems to implement, maintain and continually develop technology applications.

Ahmed's study (2022) came to identify the obstacles to the application of digital leadership from the point of view of secondary school principals in Kasbah of Irbid district, the study used the descriptive analytical method, and the questionnaire as a tool to be applied to a sample of (135) principals, The study yielded the subsequent findings: The study of the obstacles reached a mathematical mean (4.07), which represents a high degree, and the estimates of the study sample members of the human obstacles came with an arithmetic average of (3.92), which represents a high degree, and the technical obstacles came with an arithmetic average of (4.12), which represents the high degree, and the organizational obstacles came with an arithmetic mean of (4.17), which also represents a high degree, the study proved that there were no statistically significant differences due to the educational qualification variable in all fields and in the total degree, and the results of the study showed that there were statistically significant differences due to the number of years of experience variable in school administration in human obstacles and the total degree.

As for the study of Al-Faris and Bani Khalid (2022), the study aimed to identify the impact of digital leadership on the performance of Kuwaiti hospital employees, the study employed the elaborative analytical approach, and the survey served as a tool to be applied to a selection at random of (372) hospital administrators, The study yielded the subsequent findings: There is a statistically significant effect at the level ($\alpha \leq 0.05$) of digital leadership with its dimensions (innovation, persuasion and knowledge) on the performance of Kuwaiti hospital staff, the study also confirmed the profound impact on institutional work through practicing the dimensions of digital leadership, so the effect of innovation dimension came to a large extent on administrative work, and also indicated that the dimension of persuasion had a significant impact on the performance of administrative employees, the study confirmed that the use of digital leadership in administrative and organizational work has a great positive impact.

While Al-Ammari study (2022) came with the aim of identifying the degree of digital leadership practice by secondary school principals in Khamis Mushait Governorate, and developing a number of mechanisms and recommendations for their development, the study used the survey method, and the questionnaire was a tool; It was applied to a sample of (40) principals, and the study concluded: that the degree of practice of secondary school female principals in the innovation dimension of digital leadership came with a (large) degree of practice according to the responses of the study sample; Its arithmetic mean was (3.36), but persuasion dimension came with a (large) degree of practice according to the responses; Where the arithmetic mean was (4.31), and knowledge of digital leadership dimension, with a degree of practice (high); The arithmetic mean was (3.56), which indicates that the practice of digital leadership dimensions by female managers came to high degrees, and this indicates their importance.

As for the study of Hera Antonopoulou et al (2020), it came with the aim of identifying the types of leadership and digital leadership in higher education: by analyzing behavioral data at the University of Patras in Greece and identifying the leadership skills of heads of university departments by analyzing their view of digital leadership, and working on analyzing types of the leadership that they adopt, and the study used the descriptive-analytical approach, and the

Kurdish Studies

questionnaire as a tool by applying it to 28 heads of department from the University of Patras, The study yielded the subsequent findings: that digital leadership is one of the leaderships practiced in these institutions, and that digital leadership has a strong positive relationship with transformational leadership in terms of practice, and it was also confirmed that the higher degree of digital leadership means increased efficiency and satisfaction for employees, and the high degree is consistent of transformational leadership with a high degree of digital leadership implementation.

The study of Justin Alander (2020) aimed to identify the relationship between the pillars related to digital leadership that are consistent with the values and behaviors of school principals and the use of technology among teachers, the study used the descriptive analytical approach, and the questionnaire as a tool applied to a group of school principals, The study yielded the subsequent findings: The level of compatibility between principals' actions, values, and dimensions of digital leadership was determined, and it was found that there is a close relationship between them, whenever digital leadership is found, closed relationship between them, The study also showed that the patterns and pillars of digital leadership did not predict the teacher's use of technology in any of the categories, the study also indicated that most managers are not ready in one way or another to be leaders in the field of technology.

While the study of Promsuwan et al, 2019) aimed to identify the level of digital leadership for principals of small schools under the supervision of the basic education authority, and to propose a model for developing digital leadership for principals of small schools. The study used the qualitative descriptive approach, so the interview tool was used on (12) experts from specialized academics or school leaders working in executive positions in the ministry of education, the study also used The questionnaire as an instrument for implementation to a random sample of (385) female principals, The study yielded the subsequent findings: The results found that the main need for digital leaderships is the need for professional growth and development, and the development of their expertise in the areas of elaborate education, the environment around them, and then the field of communications as also one of the important areas and dimensions of the application of digital leadership in education.

2. Research Problem

In light of the great technological development the world is witnessing, and with the wide spread of modern means of communication and information, and the development that they cause in the scientific-technical field in terms of ease, and time, it has become imperative for the governments of countries to provide great care to it, especially in the education field. The development and growth of the educational process at the level of higher education institutions has left us facing great dilemmas with regard to digital leadership and its good practice. It is noticeable the lack of digital performance in general among professors working in the academic field, which makes us pay attention and work to improve it (Al-Hadrami et al., 2022)

Therefore, the contemplator of Oman's 20/40 vision, which the Sultanate of Oman began implementing in 2021, and which in its entirety dealt with basic dimensions and themes that included: people, society, development process, governance and performance improvement, finds that the important thing from the vision is the process of improving and developing performance to raise the global ratings of the Sultanate In various indicators, especially in the field of scientific innovation, global competition and good governance; in order to work to

bring about changes in various prevailing matters, which have become an obstacle to advance many things, including the weakness of digital leaderships at the university level, as the process of change is an indispensable necessity; To achieve prosperity and growth, and this is what Sultan Haitham proved in his speech to the Council of Oman (2020) that the next stage will be a stage of growth, progress and change in many of the issues imposed by the current challenges (Al-Hadrami, Al-Tubi, 2020)

In many scientific studies, it has been clarified that most of the orientations of countries' policies in general, including Sultanate of Oman in particular, as shown in its 20/40 vision and in its national strategy 20/40, are towards introducing all that is new in the field of management, technological progress and global changes, and this What was confirmed by Schenger study (2022), the study of Al-Dhuhli et al. (2021) and the Al-Habsi study (2018) that Sultanate of Oman is striving to work on digital transformation in government transactions and smart governance, and this appears in many supporting programs in this, such as the establishment of the SAS Center for the development of smart phone applications, the Arabic content enrichment program, and the national initiative to support free and open software in cooperation with educational institutions within Sultanate, which aims to train young people, the electronic certification portal, the national data center and the central platform for integration, so the current study came to answer the following main question;

What is the reality of academic leaderships practice in Omani universities of the dimensions of strategic digital leadership?

The following questions arise from it;

- 1-What types of electronic digital practices do you practice during your academic work at the university?
- 2- To what extent do academic leaders in Omani universities implement the various aspects of strategic digital leadership?
- 3- According to the study sample, what is the sequence of dimensions observed in the digital leadership applied by academic leaderships?
- 4-Are there statistically significant differences at the level (0.05) of the degree to which academics practice the dimensions of digital leadership due to the variable (gender)?
- 3. The significance of the study

Theoretical importance: It includes addressing the concepts of digital leadership, and in terms of its importance in the educational process, showing the additions it makes, and identifying the most prominent pillars based on it, as a scientific and practical attempt to enrich and provide Omani and Arab libraries with a modern and unique study according to the researcher's knowledge, whose topic revolves around digital leadership, and the degree of its practice in Omani universities and highlighting the most important practical and applied practices.

Applied importance: It includes the set of results that are reached through the application of the tool (the questionnaire) and in terms of the set of recommendations and conclusions that are reached through this study, and to identify the degree to which academics practice digital leadership patterns in Omani universities, and to highlight the technological works and practices practiced by academics in the educational process, because this will help decision-makers in higher education in Sultanate of Oman to take some of the decisions related to the application of digital leadership, and to address the challenges and difficulties that academic professors face in the process of implementing digital leadership in their universities.

4.Objectives of the Study

Recognize the electronic digital practices practiced by academics in their university work.

The investigation aims to assess the level of expertise in strategic digital leadership dimensions among academic leaders in Omani universities, as perceived by academics.

This study examines the order in which dimensions of digital leadership are exercised by academic leaderships, as identified by the study sample.

Identifying the statistically significant differences between the study sample members to the degree of practicing the dimensions of digital leadership, which may be due to gender.

5.Academic leaderships

Al-Ruwaili (2019) defines them as a group of faculty members at a university, distinguished and possessing higher scientific and administrative competences, and occupying various academic positions at the university, their main tasks are in the processes of good planning, appropriate decision-making, coordination, direction and control, for the conduct of business in the various faculties

They are defined procedurally: they are a group of individuals who hold higher degrees in their specializations, they are chosen among a large group of individuals, who have the expertise and higher skills that qualify them to carry out their work in the university or college to which they belong, whether these works are specialized in the courses they study or administrative works assigned to them within the university in terms of planning, supervision, follow-up, control and evaluation of the educational process.

Omani universities

The university defined according to the Omani legislation as stated in the Royal Decree (9/86, 1986). It is "a scientific institution concerned with higher education and scientific research, with its own organizational structure, with a public legal personality, and financial and administrative independence, consisting of a group of colleges and scientific centers, and It is based on preparing qualified academically and technically generations who are aware of the civilizational and Islamic heritage of its nation, preserving the moral and social identity of its Omani society, considering scientific research before its eyes, and It has its own council composed of the supreme administrative body, empowered to formulate and implement public policy, as well as carry out specific tasks related to strengthening the university's position and enabling it to perform its mission and achieve its goals (Al-Hadrami, Al-Khatib, 2021)

Digital leadership

Digital leadership is defined as: the basic leadership through which explore the innovative processes and functions needed to support the digital transformation process, and it is the leadership through which the available resources are utilized; Being a long-term process and not a short or temporary process that ends once it is completed, as it is the main factor in improving work within the single institution (IGI Global, 2021)

It is procedurally defined: it is that leadership style used by academic leaders in universities in a modern form and style that is consistent and matches with the digital requirements of the modern era, and requires the existence of basic competences for academic cadres in the areas of communication and connection, modern electronic devices, content and basic software in education, which requires continuous improvement to use the process of digital technology in the university for the development of knowledge.

6. Study procedures

6.1. Study Approach

The researcher decided to combine in this study the qualitative and quantitative approach, by following the analytical descriptive methods, to give real results about the topic that was discussed.

6.2. The study population and its sample

The study population consisted of all academics in higher education institutions (universities and public and private colleges), their number approximately 3413 academics, according to 2015 statistics (Omani Vision, 2015)

Due to the difficulty of reaching the study population, the researcher took a simple random sample for the application of the questionnaire, consisting of (130) academicians, while for the application of the interview, he took a sample of (50) academics to represent the actual population of the study.

6.3Tool scale.

Since the scales differ from one researcher to another, in this study, the researcher used the five-point Likert scale, which represents the middle of the scales and is symbolized by the following five phrases (agree to a large degree - agree to a moderate degree - agree to a small degree - disagree - strongly disagree). Where the results were coded in the following table according to the scale;

4.21-5	341-420	261-340	181-260	1-1.80	Average
Very large	Large	Medium	Few	Very few	Estimate

6.4 Study tools and their validity

6.4.1Interview

The researcher prepared the interview tool after reviewing previous studies on the subject of digital leadership and its various patterns, and after careful reading, the following main interview question was reached: What are the types of electronic digital practices that you practice during your academic work at the university? Through it, three sub-questions were derived, which will be mentioned later.

To measure the reliability of the interview, the researcher developed a number of cognitive strategies developed by researchers Chris Weil (2014) to ensure the quality and reliability of the study and what will be reached, therefore, the researcher took some measures to come up with the best answers, which are: Intentionally using different sources on the same subject; To interpret the results of the study and to verify the validity of the results; Presenting and discussing what was reached and collected from the participants in terms of information and data and presenting it to them again after the results are interpreted. Presenting the opposing opinions between the answers of the interviewees regarding the findings of the study and

displaying the researcher's bias towards his research and its connection with the subject of the study by presenting it to a group of arbitrators (4) in the same field of research.

6.4.2The questionnaire

The researcher constructed their study instrument by creating a questionnaire based on a comprehensive review of prior research and theoretical literature pertaining to the various facets of digital leadership, before the beginning of the application of the study tool, it was presented to 8 arbitrators in the field of management, where the initial image of the questionnaire consisted of (4) basic axes and (31) phrases distributed as follows: Field (1) leaders with a vision and contained (9) phrases and field (2) the excellence in professional institutions and contained (7) phrases, field (3) Digital Learning Culture, which contained (8) phrases, and field (4) Digital Citizenship, which contained (7) Following the arbitration procedure, the researcher implemented the necessary modifications based on the documented notes, resulting in the tool reaching its ultimate state (25) phrases divided into the four axes, leaders with a vision (7) phrases of excellence in professional institutions (6) digital learning culture (6) phrases of digital citizenship (6) phrases.

6.5. The study instrument reliability

The researcher ensured the assessment of the study instrument's validity by employing the Cronbach's Alpha Scale to derive the reliability coefficient. Subsequently, the instrument was administered to a randomly selected sample of participants (40) academics from different universities in Sultanate of Oman, and the following table shows the tool's reliability coefficient.

Reliability coefficient	Number of phrases	The axis	S/N
0.87	7	Visionary leaders	1
O.90	6	Excellence in professional organizations	2
0.93	6	Digital learning culture	3
0.82	6	Digital citizenship	4
0.86	25	The total	

 Table (2): The reliability of the study tool

Based on the findings presented in Table (2), it can be inferred that the dependability coefficient of the instrument was determined to be 0.86. This value shows a high level of reliability, suggesting that the tool as a whole is dependable throughout its various dimensions.

7.Study Results

The response to the initial question: Which states: What types of electronic digital practices do you practice during your academic work at the university? To answer the previous question, five sub-questions were derived.

- A. What digital work and administrative tasks do you do inside and outside the college that require you to use electronic devices?
- B. What are the digital educational tasks and works that you practice in teaching courses?
- C. Do you prefer dealing with the administration and students by using modern devices or traditional one? And why?
- D. Did your interaction and use of technology differ during and before Covid-19 pandemic in the process of carrying out the work and tasks that you practice at your university?

E. What are the difficulties and challenges in practicing technology while carrying out the tasks and work assigned to you?

First: Question (A) What are the digital administrative tasks and tasks that you do inside and outside the college that require you to use electronic devices?

The responses of the study sample were limited to the following.

7.1.1. Inside the college

The study sample agreed that among the administrative works practiced are.

The meetings of the department's committees (the Research Committee, the Education Committee, the Social Committee, and the Examinations Committee) were agreed upon by approximately %85 of the sample.

The personal interview committees that appeared during COVID-19 pandemic period (interview of undergraduate students – interview of master's students) and were agreed upon by approximately %60 of the responding study sample.

Academic advising, which is a process through which the academic communicates with the students assigned to him, and it was agreed to its existence approximately %55 of the study sample.

Committees for discussions of graduate studies (discussions of master's students) and it was agreed that they existed approximately %60 of the study sample, as it is one of the matters assigned to some academics.

Distribution of courses among professors, and it was agreed for its existences approximately %70of the study sample, being only once or twice, and the meeting is conducted online.

7.1.2. Outside the college

Among the matters and works practiced by academics outside the college are the following.

Committees for personal interviews for the employment of new professors, whether it was a contract system or a part-time one, and nearly %67 of the study sample agreed on it.

The university's periodic meetings, in which the president of the university meets with all the academics, and the visions are put forward and discussed to come up with the required vision, and it was agreed that %75 of the sample was present.

Second: Question (B) What are the digital educational tasks and works that you practice in teaching academic courses?

There are many answers that dealt with this topic, but the basic and main answers can be summarized in the following points, which were obtained from a sample of respondents after it was logically analyzed according to the practice, including the following.

Uploading the content of educational courses on a digital platform known as Model to be accessible to students whenever they want to obtain it, and nearly %90 of the study sample agreed on that.

Making special links for the course work and its requirements such as (research - reports - assignments) within the digital platform (Model), especially those costs that need to be examined and quoted and agreed upon by approximately %85 of the study sample.

Implementation and conduct of electronic tests through educational platforms, and this appeared significantly during the period of COVID-19 pandemic, and it was agreed for its existence approximately %55% of the study sample.

Third: Question (C) Do you prefer to deal with the administration and students by using modern devices or by using the traditional one you are accustomed to? And why?

The responses of the study sample varied between modern (technological) methods and the usual (traditional) methods, so the study sample that preferred the use of modern technical methods represented approximately %70 of the study sample and the remaining 30% tended to use traditional methods where all set of reasons started Which makes it choose the appropriate path. The study sample that chose the technological methods demonstrated that the current age is the information age and should be dealt with by these devices, while the other group demonstrated that the traditional methods are the best for not being ready and getting used to such matters.

Fourth: Question (D) Did your treatment and use of technology differ during and before COVID-19 pandemic in the process of implementing the work and tasks that you practice at your university?

In order to answer the question, the study sample unanimously agreed, approximately %98, that there is a total difference in many of the matters and tasks that were practiced by academics during COVID-19 pandemic and after the end of the pandemic, but most opinions were proven that there are issues related to tasks and works that remained on the electronic method itself, because the electronic method is the best way to deal in such works, and other works that are practiced in a traditional way are best practiced because they are not compatible with technological methods such as education, meetings, discussions, tests and other things.

Fifth: Question (E) What are the difficulties and challenges in practicing technology while carrying out the tasks and work assigned to you?

A set of responses of the study sample of the difficulties and challenges they faced during the implementation of the tasks and works assigned to them by the university or by the college were limited, and these works can be summarized after analysis and sorting as follows;

Lack of training courses in some modern electronic programs, as nearly %87 of the study sample agreed that they did not receive programs specialized in these programs.

The weakness of the English language for many academics and the difficulty of dealing with some websites as it new to them, and it was agreed that it was present in nearly %50% of the study sample.

Weak Internet networks and weak communications base infrastructure in the Sultanate and approximately agreed to its existence %80% of the interviewed study sample

Lack of credibility because electronic programs cannot be verified, especially in the educational processes in some courses, and 89% of the study sample agreed to its existence.

7.2.1 The answer to the second question, which states

What is the degree to which academic leaders in Omani universities practice the dimensions of strategic digital leadership?

In order to answer this previous question, the arithmetic merans and deviations were extracted to identify the degree of practice of academic leaderships in Omani universities for the dimensions of strategic digital leadership.

7.2.1.1The first dimension: leaders with a vision

level	order	Std deviation	mean	Items Items The university's digital leadership is clear, open and transparent in handling matters The university's digital leadership applies precautionary measures in handling matters. The university's digital leadership has the insight to address all the issues facing academics. The university's digital leadership analyzes problems before making any decision The university's digital leadership has a policy of participatory decision-making The university's digital leadership delegates some for the university's digital leade	
Medium 7		0.987	987 3.36 The university's digital leadership is clear, or and transparent in handling matters		1
Large	4	0.829	0.829 3.76 The university's digital leadership applies precautionary measures in handling matter		2
Large	5	0.776	3.56	The university's digital leadership has the insight to address all the issues facing academics.	3
Large	3	0.923	3.68	The university's digital leadership analyzes problems before making any decision	4
Large	2	0.698	4.00	The university's digital leadership has a policy of participatory decision-making	5
Large	6	0.947	3.49	The university's digital leadership delegates some of the powers granted to it.	6
Very Large	1	0.876	4.21	University digital leadership varies from person to person in terms of behavior and decision- making	7

Table (3) Arithmetic averages and standard deviations of the vision leaderships dimension

Through Table (3), we conclude that the general average of the leadership dimension with a vision came with an arithmetic mean (3.71), which represents a medium degree and a standard deviation (0.863), so the phrase (7) the digital leadership at the university differs from one person to another in terms of behavior and decision-making, with an arithmetic average (4.21), which represents a very large degree, and a standard deviation (0.867), and the researcher attributes this to the fact that the difference is in the nature of human beings, and each person has skills and abilities that differ from others, and this is related to the amount of development and growth of that skill. The statement that the university's digital leadership is characterized by clarity, frankness and transparency in dealing with matters came in the last place, with an arithmetic mean (3.36) and a standard deviation (0.987), which represents the lowest degree The researcher ascribes this quality within the scale to the ambiguity of some terms and works that the person may not understand and need clarification, there are things that it is not recommended to divulge to the public, because they may harm the institution, and It is a policy that many leaders follow, Furthermore, this outcome is in line with the findings of both the study of Al-Faris and Bani Khalid (2022) and the study of Al-Ammari study (2022).

7.2.1.2 second dimension: Excellence in professional institutions

Level	order	Std deviation	mean	Items	No
Large	4	0.894	4.17	Academic leaders apply appropriate technical knowledge and skills	1
Very large	2	0.912	4.21	Academic leaderships are working on using the best electronic methods for doing business.	2
Large	3	0.768	4.20	Academic leaderships use modern means of communication effectively	3
Very large	1	0.987	4.22	Academic leaderships possess various scientific methods for solving problems	4
Large	6	0.765	3.56	Academic leaderships rely on teamwork to make decisions.	5
Large	5	0.982	3.87	Academic leaderships apply critical thinking in many of their work.	6

 Table (4)
 Arithmetic averages and standard deviations of the dimension of excellence in professional institutions

Kurdish Studies

Through table (4), we conclude that the general average of the dimension of excellence in professional institutions came with an arithmetic mean (4.02), which represents a large degree and a standard deviation (0.894), so the phrase (4) academic leaderships possess various scientific methods for solving problems, with an arithmetic average (4.22) It represents a very large degree, and a standard deviation (0.987), and the researcher attributes this to the selection of academic leaderships in the Sultanate according to the Oman 20/40 vision, which is that the leaders have a high level of expertise in the field of modern technologies, the phrase (5) the academic leaderships depend on a work team for decision-making, in the last place with an arithmetic mean (3.56) and a standard deviation (0.982), and the researcher attributes this to the difference in ideas between academic leaderships and the lack of academics in the same specialization, which makes the difference between them, Furthermore, this outcome aligns with the findings of the conducted research of Al-Dhuhli et al. (2021).) and the study of Rayes and Al-Aifan (2022)

7.2.1.3. The third dimension: a culture of digital learning

Table (5) Arithmetic averages and standard deviations for the dimension of digital learning culture.

level	order	Std deviation	mean	Items	No
Very large	2	0.768	4.21	Digital leadership relies on modern technology in the business process	1
large	5	0.951	3.99	Leaderships share information and data with others electronically	2
Large	6	0.879	3.87	Digital Leadership provides easy digital content for all the work to be done	3
large	3	0.981	4.11	University leaders motivate learning patterns in the Internet	4
Very large	1	0.761	4.26	University leaders apply the use of modern technology in the communication process	5
Large	4	0.629	4.08	Digital leadership polish leaders and makes them more open with technology.	6

We conclude from Table (5) that the general average of the dimension of digital learning culture came to a large degree in general, so the phrase (5) university leaderships applied the use of modern technology in the communication process, with an arithmetic mean (4.26), which is a very high degree, and a standard deviation (0.761), and the researcher attributed to the recent COVID-19 pandemic, which transformed and forced leaderships to use modern technology in most educational works, and the phrase (3) came in the last place, The digital leadership provides easy digital content for all the work required to be completed, with an arithmetic average of (3.87), The researcher attributes the significant variation in instructional material to a substantial degree from one discipline to another and from one leader to another, and this result is consistent with the conclusion reached by the study of Hera Antonopoulou et al (2020) and the study of Justin Alander (2020).

7.2.1.4The fourth dimension: digital citizenship

level	order	Std deviation	Mean	Items	No
Large	5	0.691+	3.89	I have the skills to digitally access the materials I paed	1
Large	4	0.897	3.93	I can deal with various commercial websites and know the good from the bad	2
3Large	6	0.798	3.33	I enjoy the rights to privacy and freedom of expression when I practice of digital leadership.	3
Large	3	0.986	4.13	I am developing my electronic skills by learning the new in the world of technology to be a responsible digital citizen in a serious society	4
Large	2	0.648	4.15	I have effective methods in the processes of dialogue with others	5
Very large	1	0.986	4.27	I avoid engaging in electronic operations and discussions that offend others	6

Table (6) Arithmetic averages and standard deviations of digital citizenship dimension.

Through Table (6), we conclude that the general average of digital citizenship dimension came with an arithmetic mean (4.01), which represents a large degree according to the scale, and a standard deviation (0.834), so the phrase (6) I avoid engaging in electronic operations and discussions that offend others, with an arithmetic average of (4.27) It represents a very large degree, and a standard deviation (0.986), and the researcher attributes this to the social environment in which the leader was raised and to the laws, regulations and legislation that regulate this and punish those who commit some unpleasant acts, the phrase (3) I enjoy the rights of privacy and freedom of expression when practicing digital leadership came in last place with an arithmetic mean (3.33) and it has a medium degree and a standard deviation (0.986), which represents the lowest degree in the scale, the researcher attributes this to the regulations and legislation that regulate modern technology in Sultanate Oman, and this result is similar to that of Mahmoud (2022), Al-Amari (2022), and Promsuwan et al. (2019)

The answer to the third question, which states: What is the order of the dimensions of digital leadership practiced by academic leaders, according to the study sample?

In order to answer this previous question, the arithmetic averages and deviations were extracted to identify the order of the dimensions of digital leadership practiced by academic leaders according to the study sample.

dimensions of digital leadership in Omani universities, according to the order of fields.							
level	order	Std deviation	mean	Items	No		
Large	4	0.863	3.71	Visionary leaders	1		
Large	2	0.884	4.02	Excellence in professional	2		
Laige	2	0.004	4.02	organizations	4		
Large	1	0.836	4.08	Digital learning culture	3		
Large	3	0.834	4.01	Digital citizenship	4		
Lar	ge	0,854	3.93	Axis as a whole			

Table (7) Arithmetic averages and deviations of the degree to which academics practice the dimensions of digital leadership in Omani universities, according to the order of fields.

Kurdish Studies

Through Table (7), the order of the degree of practicing the dimensions of digital leadership in Omani universities is as follows: the culture dimension of digital learning ranked first with an arithmetic mean (4.08) and a standard deviation (0.836), the researcher attributes this to the fact that digital learning is one of the requirements of the modern era, and the COVID-19 pandemic has greatly affected the trend towards digital learning and its culture, after excellence in professional institutions came in second place and came with an arithmetic mean (4.02) and a standard deviation (0.884), and the researcher attributes this to that excellence is one of the basic requirements on which all universities in the world are based, especially in this era, the third rank came after digital citizenship with an arithmetic mean (4.01) and a standard deviation (0.834), and in the fourth rank leaderships with vision dimension with an arithmetic mean (3.73)

The answer of the fourth question: Which states is there are statistically significant differences at the level (0.005) in the degree to which academic leaderships practice the dimensions of digital leadership from their point of view of the gender variable?

Significance level	(T) value	Standard deviation	Arithmetic mean	Number	Туре	Domain
0.057	1 27	0.890	3.67	70	Male	Visionamilandam
0.057	1.57	1.232	3.56	60	Female	-visionary leaders
0.165	1.10	0.969	3.89	70	Male	Digital learning
0.165		0.879	3.95	60	Female	culture
		0.875	3.99	70	Male	Excellence in
0.076	1.15	0.911	3.91	60	Female	professional institutions
0.087	1.03	0.798	4.13	70	Male	Digital learning
		0.987	4.19	60	Female	culture
0.059	1.02	0.890	3.93	70	Male	The tool as a
	1.02	1.02	3.91	60	Female	whole

Table (8) Arithmetic averages, standard deviations, and the "t" value of the degree to which academic leaderships practice digital leadership styles according to the gender variable.

Through table (8), we conclude that the level of significance in all axes of the questionnaire was more than (0.05), and came as follows: the first dimension (0.057), the second dimension (0.110), the third dimension (0.115), the fourth dimension (0.103), and the axis as a whole came (0.102), which indicates that there are no statistically significant differences that can be attributed to the gender variable, the researcher attributes this to males and females in Omani universities having some characteristics and ingredients that make them close to each other in many matters.

8.Conclusion

After reviewing the analysis of the study, it was concluded that there are many electronic digital practices that are practiced by academics in universities, and these practices varied between business and purely administrative and educational tasks, whether they were practiced inside or outside the college, therefore, the study sample during the interview between approval and opposition to the use of tasks and actions in technological and traditional ways, each group has its own justifications, but all the study sample acknowledged the difficulties and challenges facing the practice of the technological process, the study showed that the level of practice of

academic leaderships in Omani universities to the strategic digital leadership dimensions came in most of its phrases to great and very large degrees, and this indicates to the scientific and technical awareness of these leaderships. The order of these dimensions was as follows: In the first place came the digital learning culture dimension with an average of (4.08), then it came in the second place after excellence in professional institutions with an arithmetic mean of (4.02), and came third digital citizenship dimension with an average of (4.01) and in the last place It came leaders with a vision dimension with an average of (3.37). The study also confirmed the absence of statistically significant differences in the degree of leaders' practice of the dimensions of strategic digital leadership according to the gender variable.

Recommendations

-Issuing bylaws and regulations for employing modern technology in all Omani universities in some educational fields in academic courses.

-Holding training programs for the electronic programs that the academic uses it most of the time.

-Working on developing modern plans and strategies for modern technical systems, among the modern visions and strategies in the country.

-Providing academic leaders in Omani universities with effective communication skills using modern technologies and making them available at all times.