



عناوين الأبحاث العلمية باللغة الإنجليزية



أبحاث العدد

البحث السابع عشر:

دور التحول الرقمي في تحقيق إدارة التميز في الجامعات السعودية "(دراسة ميدانية في جامعة الأميرة نورة بنت عبد الرحمن)":

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ثانياً الأبحاث باللغة الإنجليزية



**دور التحول الرقمي في تحقيق إدارة التميز في الجامعات السعودية
(دراسة ميدانية في جامعة الأميرة نورة بنت عبد الرحمن)**

**The Role of Digital Transformation in Achieving Excellence Management in
Saudi Universities
(A field study at Princess Nourah University)**

إعداد

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دور التحول الرقمي في تحقيق إدارة التميز في الجامعات السعودية (دراسة ميدانية في جامعة الأميرة نورة بنت عبد الرحمن)

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المستخلص: هدفت الدراسة الحالية إلى التعرف على دور التحول الرقمي في تحقيق إدارة التميز وذلك من خلال التعرف على واقع التحول الرقمي في جامعة الأميرة نورة ومستوى تحقق إدارة التميز في تلك الجامعة. واستخدم المنهج الوصفي لتحقيق أهداف الدراسة حيث وزعت الاستبانة على عينة عشوائية من القيادات في جامعة الأميرة نورة بلغ عددها 87 قائدة من أصل مجتمع الدراسة المكون من 113. وأثبتت النتائج أن واقع التحول الرقمي وتطبيق إدارة التميز في الجامعة المبحوثة عالي جداً وذلك من وجهة نظر عينة الدراسة. كما أثبتت النتائج أن هناك علاقة إيجابية ذات دلالة إحصائية بين تحقيق التحول الرقمي وتطبيق إدارة التميز؛ مما يدل على دور التحول الرقمي في تحقيق إدارة التميز. وخلصت الدراسة بعدد من التوصيات كان من أبرزها؛ على الجامعات الاستفادة من مخرجات البرامج الوطنية ذات العلاقة بإعداد الكفاءات في مجال التحول الرقمي، لا بد من وجود معايير للتحول الرقمي تأخذ بعين الاعتبار الجودة والوقت والتكلفة، يجب أن تكون لدى الجامعة خطة معتمدة مدروسة ومعلنة لاستقطاب الكفاءات والمهارات للمساهمة في عملية التحول الرقمي، يجب أن تتميز الخطط التنفيذية للتحول الرقمي بالمرونة حيث يمكن تطويرها لتتوافق مع المستجدات التقنية والتنظيمية المحلية والعالمية.

الكلمات المفتاحية: التحول الرقمي، هيئة التحول الرقمي الوطنية، إدارة التميز، الخطط.

The Role of Digital Transformation in Achieving Excellence Management in Saudi Universities

(A field study at Princess Nourah University)

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Abstract:

The study aimed to identify the role of digital transformation in achieving excellence management by identifying the reality of digital transformation at Princess Nourah University and the level of achievement of excellence management at that university. The descriptive approach was used, and the questionnaire was distributed to a random sample of leaders at Princess Nourah University, amounting to 87 leaders out of a study population of 113. The results proved that the reality of digital transformation and the application of excellence management in the researched university is very high. The results also proved that there is a statistically significant positive relationship between achieving digital transformation and applying excellence management, which indicates the role of digital transformation in achieving excellence management. The study concluded with a number of recommendations, the most prominent of which were: Universities should benefit from the outputs of national programs related to preparing competencies in the field of digital transformation, there must be standards for digital transformation that take into account quality, time and cost, the university must have an executive plans for digital transformation must be flexible as they can be developed to comply with local and global technical and organizational developments.

Keywords: Digital Transformation, National Digital Transformation Authority, Excellence Department, Plans.

1: Introduction:

Digital transformation is no longer just a way to add an advantage to organizations, but it has become an urgent necessity for those who seek to improve and develop their services, and work on the speed and ease of access to beneficiaries (Allam, 2021). Digital transformation does not mean the application of technology only within the organization, but goes beyond that in terms of being a complete and comprehensive program related to the organization, the way it works at home, and the way it provides its services to its beneficiaries abroad (Mandoura, 2020).

Digital transformation is concerned with the way technology is used within organizations in order to improve their operational efficiency and improve the services they provide, as it is based on employing technology in an optimal manner that serves the workflow within the organization and in its various departments, and also includes the organization's dealings with beneficiaries to improve the services provided to them and facilitate their access to them with the highest quality and with the least time and effort (Bryce and Jabr, 2019).

The need has become more urgent in the current era than before for the digital transformation of organizations in their management and work, due to the rapid development in all aspects of life in the use of technology, whether related to transactions in government sectors or the services they provide, and therefore there is continuous pressure from various segments of society on government organizations to improve their services and make them available at all times and places on various digital channels (Eid, 2021).

Excellence in performance is one of the most recent and important topics because excellence has become one of the first goals that organizations seek to achieve to create a competitive advantage for them, whether in the services they provide or the products they produce, and excellence management needs speed, innovation and flexibility in operations management (AbdelbakY, 2015).

In this study, the researcher tries to identify the role of digital transformation in achieving excellence management in organizations to create a competitive advantage for them, after the following problem emerged during the research.

2: The problem of the study:

Despite the increasing importance of digital transformation in management, the contribution of digital transformation in some countries of the world has reached a third, and the number of digital users is expected to reach 160 million by 2025. This contributes more than 3.5% of countries' GDP, equivalent to approximately 95 billion US dollars. Experts also stressed that digital

transformation positively affects financial and social inclusion, the fight against poverty, and increases high-quality health and educational care and educational opportunities (Zubair, 2022); however, The control of information illiteracy among the majority of employees in government agencies and the low professionalism of many employees and the level of service they perform, is one of the biggest challenges to achieving excellence for organizations (Tichuri, 2020), and excellence management is a modern philosophy to conduct business in the most successful ways to improve the performance of organizations, develop them and reach competitive levels that satisfy stakeholders (Salti, 2015).

Through the previous presentation, the problem of the study can be identified in the following main question:

3: Study Questions:

Study main question:

What is the role of digital transformation in Achieving excellence management in Princess Nourah University from the point of view of its leaders?

From this emerged the following sub-questions:

First sub-question: To what extent is digital transformation applied at Princess Nourah University from the point of view of its leaders?

Second sub-question: What is the level of achievement of excellence management at Princess Nourah University from the point of view of leaders at the university?

Third sub-question: Is there a correlation between the degree of availability of digital transformation in management and the level of excellence management at Princess Nourah University from the point of view of leaders at the university?

4: Objectives of the study:

The study aims to:

1. Recognition the degree of Princess Nourah University's application of digital transformation.
2. Demonstrate and clarify the level of achievement of excellence management at Princess Nourah University.
3. Measure the correlation between digital transformation and excellence management.
4. Measure and test the role of digital transformation in achieving excellence manage.

5: The importance of the study:

The study gains its importance from:

1. Recognize the role of digital transformation in excellence management.
2. Determine the level of excellence management at Princess Nourah University.
3. The study dealt with an important topic, which is digital transformation, which has become a demand of organizations in the current era.
4. This study is one of the approaches and recent trends in management that gives great priority to digital transformation in organizations, as well as excellence management that affects the performance of the organization and thus achieves a competitive advantage.

6: Study Terminology:

Digital transformation: Al-Mutraf (2020) explained that despite the multiplicity of concepts of digital transformation, it can be defined as a set of modern digital technologies that work simultaneously such as computer technology, artificial intelligence, computational computing and others.

Al-Haddad and Ibrahim (2018) defined it as the use of technology in governmental and private organizations.

The researcher defines digital transformation procedurally as the transformation of institutions and organizations from the traditional method of management from the use of paper in letters and transactions to the use of computers and technology, whether simultaneously such as remote meetings, or asynchronously such as the use of e-mail or other information technologies.

Excellence Management: Abbas (2018) defined it as the highest degree of efficiency with which the organization achieves its goals to achieve the wishes of the beneficiaries, which creates a competitive advantage.

Hassan (2013) also defined the organization's ability to coordinate and harmonize its elements and operate them in an integrated and coherent manner to achieve the highest rates of efficiency and effectiveness to achieve high-quality outputs that meet the desires, expectations and benefits of stakeholders.

The researcher defines excellence management procedurally as the policies and procedures followed by the organization to benefit from its material, financial and human resources with the highest efficiency and effectiveness in a way that contributes to achieving its goals, which gives it a competitive advantage that reaches the satisfaction of the beneficiaries and makes it a milestone in providing services and products for its competitors.

7: Limitations of the study:

Thematic limit: digital transformation, excellence management.

Spatial limit: Riyadh.

Time limit: 2021-2022.

Human Limit: Leaders at Princess Nourah University.

8: Theoretical Framework:

8:1: Digital Transformation:

8:1:1: The concept of digital transformation:

It is a technique that is concerned with the extent to which organizations respond to rapid technological changes by changing their business models and processes (Mandoura, 2020). Digital transformation is an investment in human capital by changing their behavior to radically transform the way they work by taking advantage of the great technological developments that occur to serve the beneficiaries better and faster (Ali and Qasim, 2020). Digital transformation is often a government project that targets all government sector services by transforming their basic and vital services directed to individuals and other sectors from the traditional image to electronic services based on developed and modern technologies (Al-Balushi, Al-Harrasi and Al-Awfi, 2020).

Berghaus (2018) also showed that digital transformation has become of great importance because of its contribution to bringing about organizational changes needed by technological developments such as creating new models or providing services in a different way with less effort and higher quality. Back (2016) also stated that digital transformation resulted from the prevalence of digital technology, which stimulated organizational change in organizations to be able to mix processes with digital technologies that lead to radical changes within the organization in terms of inputs, processes and outside the organization. In terms of outputs of products and services provided to beneficiaries.

8:1:2: The importance of digital transformation in management:

There are many studies that touched on the importance of digital transformation in management, and perhaps we mention here the most important points that were mentioned about the importance of digital transformation in management, namely;

1. Providing services to beneficiaries inside and outside the organization faster and easier without the need for delayed transactions or long waiting periods (Farhat, 2020).

2. Contribute to linking the departments and units of the organization to each other and linking the government and private sectors with each other through coordination and cooperation via the Internet (Marcel, 2019).
3. The need for organizations to keep pace with the trends of the times using technology and applying digital transformation in providing their services to achieve the satisfaction of beneficiaries (Al-Qahtani, 2014).
4. Organizations improve their services by making them available to the largest number of segments of society at all times and places (Farhat, 2020).
5. Enable organizations to compete by maintaining their competitiveness and creating value for them by easily preserving and exchanging information and developing their services (Al-Qahtani, 2014).
6. Governance of operations through the group of organizational relations and accounting and auditing laws by providing an integrated system of performance measurement standards to establish homogeneity between the various sectors of the organization and the different sectors of the state so that they complement each other directly or indirectly to control the interrelated interaction processes that work to complete the processes and procedures (Marcel, 2019).

8:1:3: Digital Transformation Goals:

There are many goals included in the digital transformation process, which were mentioned by various studies, and most of them mainly revolve around organizations generating value through digital thought and innovation and the way in which products or services and processes are presented in a new style in a faster and newer way through modern and innovative technologies that comply with the renewed requirements and behaviors of society, and one of the most prominent goals of digital transformation as mentioned by Alhubaishy & Aljuhani, (2021), Al-Qahtani (2014), Aljaber (2020) and Mohammed (2020):

1. Provide a huge amount of information on digital media, while saving the original source of information from damage.
2. The digital transformation process aims to push organizations to adopt a method by developing a clear transformation strategy that contributes to a clear perception of the commitment of all stakeholders.
3. Comprehensive development is one of the most important goals of digital transformation by increasing the efficiency and speed of operations and services and providing them to beneficiaries with ease.
4. Business governance by practicing it more transparently and simply and circulating information in a manner visible to all.

5. Building knowledge through the exchange of experiences and continuous development.
6. Demonstrate the way operations are performed while seeking to bring them to innovative levels while working on developing services and business models.
7. Making available digitized original information through continuous updating of digital information.
8. Providing information to the largest number of beneficiaries and stakeholders and archiving it in a digital way that can be accessed remotely through digital platforms.
9. Reducing costs by dispensing with traditional means while facilitating the process of searching and retrieving information from digital collections in multiple ways and means.

8:2: Excellence Management:

8:2:1: Excellence Management Concept:

Oakland (2011) explained that excellence management means the ability of an organization to reconcile and coordinate its elements and operate these elements in an integrated and coherent manner to achieve the highest rates of effectiveness so that the organization can meet the expectations and desires of beneficiaries and stakeholders.

As mentioned by Al-Hilalat (2014), they are activities that make organizations distinct from others in terms of their performance and services by employing the skills, competencies, capabilities and resources available in an effective and distinguished manner, which makes this organization unique and superior, whether through dealing with beneficiaries internally or externally or through how it performs its activities and operations or how. Which prepares and designs its organizational and administrative policies and strategies and its operational plans in an effort by the organization to achieve its set objectives in a way that meets all the requirements of the relevant parties in a way that exceeds their expectations and requirements. Yonees (2016) also explained that excellence management means directing, aligning, coordinating and organizing the efforts made by the human resources in the organization in an integrated and coherent manner to reach a level of unique and proficient performance in order to achieve the expectations and desires of the beneficiaries.

Tinofirei (2021) stated that excellence management is the achievement of certain tasks by an organization in light of a number of criteria such as cost, accuracy, time, efficiency, effectiveness, and the achievement of these tasks completed according to the conditions and climate of work in a manner that

distinguishes the organization from other competitors. Excellence management goes beyond just a management method followed by the organization to the quality and how it processes within the organization, in a way that contributes to achieving its goals with the highest possible quality and with the least effort and cost.

8:2:2: Dimensions of Excellence Management:

Studies have differed in determining the basic dimensions of excellence management due to the divergent views of employees, however, Schmidt (2020) stated that excellence management has two basic dimensions in modern management:

First, the organization has achieved unprecedented results that outperform its competitors.

Second: All decisions, actions and events issued by the organization should be characterized by excellence, which means that they are of high quality with the least amount of deviation or error every time the work is carried out again, or in other words, the work is carried out correctly from the first time.

Both dimensions are complementary to each other as the achievement of the second dimension leads to the achievement of the first dimension as an inevitable consequence of it, as the first dimension cannot be achieved without the integration of what is stated in the second dimension.

8:2:3: Excellence Management Requirements:

Some studies stated that excellence management is based on a number of requirements, as it is considered its main pillars and organizations seek to achieve and reach it to reach excellence (Al-Salami, 2020), and the researcher address in these the most prominent requirements agreed upon by most studies, namely:

1. Building an integrated strategy, whether at the level of the organization as a whole or at the level of human resources in the organization, as this strategy expresses the aspirations of the future organization to proceed according to a clear and deliberate vision, mission and objectives (Sakarna, 2011).
2. The existence of an integrated system of policies that organize and govern the work in the organization and define the duties, responsibilities and powers of each individual in the organization so as to coordinate decision-making with the participation of all, which achieves integration and coherence between the elements of the administrative system (Al-Madhoun, 2018).

3. The existence of agile organizational structures based on scientific foundations taking into account the flow of information and the intertwining of business relationships so that they are flexible structures that are commensurate with performance requirements and adaptable and modified based on internal and external variables. These structures help activate responsibility and accountability by defining responsibilities, powers and degree of centralization (Al-Meligy, 2016).
4. Performance appraisal through a set of comprehensive and integrated measures and standards that aim to optimize the use of the organization's available resources in a way that contributes to achieving its desired goals (Ayach, 2015).
5. Management with information and facts using an integrated information system that includes mechanisms to monitor the required information, which includes information on decision support, performance follow-up, total quality management that works on inputs, processes and outputs, and creating an attractive environment that works on quality control (Sakarna, 2011).

8:2:4: Objectives of Excellence Management:

Al-Meligy (2016) explained that there are several objectives of excellence management that can be summarized as follows:

1. Improving the performance of the organization by raising service levels, and disseminating excellence management applications by working on designing the best applications with their principles in organizational performance.
2. Balance results and activities by encouraging and supporting competition and positive cooperation.
3. Work within a highly competitive environment by continuing to work in a distinctive way that satisfies the beneficiaries.
4. Work to improve the work environment for employees in all social and practical aspects, and build distinguished working relationships with the local community.
5. Maximizing the efficiency and capacity of work and motivating performance in a way that increases the ability to face the rapid changes that occur in the internal and external work environment.

9: Previous Studies:

9:1: Studies related to digital pallet:

In the study of Al-Ghamdi and Taiba (2021), which dealt with the impact of electronic management on achieving institutional excellence in agricultural

management in accordance with Vision 2030, the researchers used the descriptive approach and relied on the questionnaire as a tool for the study. The results of their study showed that the dimensions of electronic management (computers and accessories, networking and the human element) have a statistically significant relationship at the level of (0.05) on institutional excellence. The study recommended the development of administrative communications inside and outside the organization to develop the technical work environment.

Khamis's study (2021) aimed to measure and analyze the impact of digital transformation on the performance of employees in Egyptian commercial banks. To achieve the objective of the study, the researcher used the descriptive approach, and the data was analyzed using a number of statistical methods such as correlation and multiple regression analysis, and the results of the study showed a positive correlation between digital transformation and the dimensions of job performance. The results also showed that there is a positive significant impact on the dimensions of employees' performance. The researcher recommended that psychological support be provided to workers to reduce their digital stress.

In Mandoura's study (2020), which aimed to measure the impact of digital transformation in improving institutional services in Syria, the researcher used the descriptive approach to achieve the objective of the study. The results showed a relationship between the use of the electronic portal to serve citizens and improving the efficiency of services provided to them in terms of speed and cost reduction. The study concluded with a number of recommendations, the most important of which was the need to hold training courses for human resources in the public sectors and strengthen the infrastructure to enhance digital services and information security in them.

In additional, In Guzman's study (2020), which dealt with the impact of digital transformation on the performance of employees, the study relied on the descriptive approach, where the study tool was the questionnaire distributed to a sample of (305). The results concluded that there is a positive impact on task performance as a result of digital transformation in customer service, and that processes based on digital transformation have significantly affected the performance of employees to their tasks. The study recommended the need to formulate methodologies for digital transformation to create solid and successful organizations that achieve the aspirations of beneficiaries within and outside the organization.

9:2: Studies Related to Excellence Management:

The study Verbancu (2021) aimed to find out the role of excellence management in enhancing and developing the competitiveness of organizations

by professionalizing leaders in those organizations by enhancing the strategic dimension by redesigning methodologies, administrative processes and organizational culture. The study used the descriptive approach and found that excellence management depends on the strategic dimension and the vision of the organization in achieving its long-term goals.

As for the study of Alser (2019), which aimed to study the relationship between excellence management and the degree of availability of entrepreneurial characteristics among administrative leaders in government colleges in the governorates of Palestine, the researcher used the descriptive approach to achieve the objective of the study. The most important results were that the level of application of government colleges in the southern governorates was average, while the degree of availability of entrepreneurial characteristics among administrative leaders was large. The results also showed that there is a positive correlation between excellence management and the degree of availability of entrepreneurial characteristics among leaders in organizations Surveyed. One of the most prominent recommendations is that organizations should pay attention to the practical application of entrepreneurial characteristics to achieve their excellence.

In Saqr's study (2018), which aimed to study the reality of excellence management in Palestinian universities in Gaza Governorate, where the descriptive analytical approach was used to achieve the objective of the study. The data was collected using the questionnaire that was distributed to the heads of departments at Al-Azhar University, the Islamic University of Gaza and Al-Aqsa University, and the results showed that there are statistically significant differences attributed to the university variable in the degree of availability of excellence management, as it was in favor of the Islamic University of Gaza, and one of the most prominent results was that the degree of availability of excellence management In those universities they were all great.

In the study of Nazemi & Alishiri (2015), the study aimed to manage excellence in education institutions and schools using the European model and the study used the descriptive analytical approach where the study tool was the questionnaire. The study found that excellence management contributes to improving strategic planning in education. The study concluded by recommending that the teaching staff should understand excellence management because of its importance in achieving competitive advantage for educational organizations.

9:3: Commenting on previous studies:

Through reviewing previous studies, they found that there is diversity in their topics, objectives, and tools, due to the diversity of aspects that each study was interested in, however, there are similarities and differences between each other and the current study, where all studies were similar in terms of the method used, where the descriptive approach was, as well as in the study tool, where the questionnaire was, but in terms of difference, the studies differed from each other in the study sample, where each study chose the sample based on the goal Some of them also differed in variables, some of which were in the education sector and others in banks or commercial institutions.

The current study has benefited from previous studies in terms of defining the study methodology and building its tool, but in terms of difference, it differs in terms of study variables, as it combined digital transformation as an independent variable and excellence management as a dependent variable.

10: Study Procedures:

10.1 Samples

Robert Mason's equation was used to determine the sample size where the sample size was 87 from a population of 113 adults as shown in the following equation.

Robert Mason's equation for determining sample size

$$n = \frac{M}{\left[\frac{S^2 \times (M-1)}{pq} \right] + 1}$$

where:

M: Community size

S: Dividing the standard score corresponding to the significance level is 0.95, i.e. dividing 1.96 by the error rate 0.05

P: Availability of the property is 0.50

The sample size was 87 out of the study population of 113

10.2 Measures

Based on the nature of the study, the questionnaire was used to collect data

and the study relied on the preparation of the questionnaire on references related to the subject of the study.

10.3 Statistical Methods:

The study relied on the descriptive correlational method to know the trends and tendencies of the study population, where the coefficients of stability, truthfulness, arithmetic means, standard deviation, correlation coefficients, multiple regression analysis and analysis of single variance were calculated.

10.4 Reliability of the Instrument:

Performance reliability was measured as follows:

The questionnaire was presented in its initial form to a number of arbitrators to ensure the truthfulness of the content and paragraphs of the questionnaire, and then the questionnaire was prepared in the current form. The sincerity of internal consistency was done by calculating the Pearson correlation coefficients between each paragraph of the first axis: Digital transformation as shown in the following table (1):

Table (1) Correlation Coefficients For Paragraphs Of Statements With The First Axis As A Whole

#	Paragraphs	correlation coefficient	P-Value
First Theme: Digital Transformation			
First Area: Strategic Planning for Digital Transformation			
1	The university has a strategic plan for digital transformation aligned with the university's plan.	.795**	.000
2	The university has executive plans for the strategic plan for digital transformation.	.736**	.000
3	Digital transformation executive plans are flexible and can be developed to be in line with the country's technical and regulatory developments.	.888**	.000
4	The strategic plan for digital transformation at the university is characterized by integration and compatibility with the efforts of other relevant government agencies.	.882**	.000
Second Area: Preparing Workers for Digital Transformation			
5	The university has developed a plan to develop and prepare leaders and workers to raise the level of knowledge of the digital transformation process.	.907**	.000
6	The university develops leaders and workers in all deanships, colleges and departments in a way that achieves integration in the digital transformation process.	.924**	.000

7	The university engages its employees in the digital transformation process in innovative and creative ways.	.910**	.000
8	University employees are involved in the decision-making process related to digital transformation.	.909**	.000
Third Area: Digital Transformation Infrastructure Readiness			
9	The university has prepared the institutional infrastructure for digital transformation.	.929**	.000
10	The organizational unit of the digital transformation enterprise architecture is linked to senior management with clear tasks and responsibilities.	.934**	.000
11	The aforementioned unit operates according to clear and effective mechanisms.	.818**	.000
12	The institutional structure has contributed to the development of the university's approach to digital transformation based on criteria that take into account quality, time and cost.	.843**	.000
Fourth Area: Attracting competencies and skills for the digital transformation process			
13	The university has a well-thought-out and announced approved plan to attract competencies and skills to contribute to the digital transformation process.	.900**	.000
14	The university is attracting digital talent according to the previously mentioned plan.	.861**	.000
15	The university benefits from the outputs of national programs related to the preparation of competencies in the field of digital transformation.	.894**	.000
16	The university has mechanisms to stimulate competencies in digital transformation to retain them.	.886**	.000

Table (1) shows that all correlation coefficients are high, which indicates a strong internal consistency between the paragraphs of the first axis, and it is also noted that all probability values. 000, which is less than .05, means a statistically significant relationship between paragraphs.

In order to calculate the validity of the internal consistency of the second axis of the study (excellence management), this was done by calculating the Pearson correlation coefficients between each paragraph of the second axis: Excellence management with the axis as a whole as shown in Table (2) below:

Table (2) Correlation Coefficients For Paragraphs Of Statements With The Second Axis As A Whole

#	Paragraphs	correlation coefficient	P-Value
1	The senior management at the university develops programs to improve administrative work at all levels to achieve excellence in administrative work.	.889**	.000
2	The university's senior management prepares integrated plans for talent management and development.	.876**	.000
3	Identify the functional needs of the university in light of the requirements of	.913**	.000

	excellence		
4	The senior management follows up the implementation of the university's development plans and excellence.	.876**	.000
5	The strategic plan adopted by the university stems from the needs of all beneficiary parties.	.891**	.000
6	The university involves all parties from students, academics, the local community, and the labor market in preparing its strategic and development plans.	.900**	.000
7	The University develops plans and programs for sustainable professional development in light of the results of self-evaluation of performance.	.830**	.000
8	The leadership at the university supports modern teaching strategies that encourage scientific research and experimentation.	.803**	.000
9	Senior management translates the University's strategic objectives into work programs.	.780**	.000
10	Employees shall be given sufficient powers to accomplish their tasks.	.897**	.000
11	Modern technologies are used in administrative processes at the university.	.896**	.000
12	The university's senior management encourages innovation in process development activities.	.897**	.000
13	Senior management employs information systems to support the University's objectives.	.780**	.000
14	There are evaluation programs that ensure the achievement of the university's goals.	.897**	.000
15	The university's senior management is keen to exchange information and ideas with employees.	.894**	.000
16	The university's senior management increases opportunities for creativity by optimizing the investment of its information resources.	.913**	.000

Table (2) shows that all correlation coefficients are high, which indicates a strong internal consistency between the paragraphs of the field and it is also noted that all the probability values of .000, which is less than .05, mean a statistically significant relationship between the paragraphs. To calculate the validity and stability of the resolution as a whole, the Cronbach alpha coefficient was used as in Table (3) below:

Table (3) Cronbach's Alpha Coefficients To Measure The Validity And Stability Of The Resolution

Domain	Number of phrases	Stability coefficient	credibility coefficient
First Theme: Digital Transformation	16	.979	.99
Second Theme: Excellence Management	16	.980	.99
Paragraphs as a whole	32	.989	.99

Table (3) shows that the total stability coefficients reached a very high rate of 99%, which reflects the stability of the resolution, as well as the truthfulness coefficients indicate the consistency of the statements and the goal for which they were developed by 99%.

10.5 Data analyses

In order to interpret the results, the scale of the study tool was corrected as in Table (4) using a quintet card scale as shown in the following table

Table (4) Scale Correction For The Study Tool

Response	Weight	Average value	Level of response
Strongly disagree	1	From 1 and less than 1.80	Very low.
Disagree	2	From 1.81 and less than 2.60	Low.
To some extent	3	From 2.61 and less than 3.40	Medium.
I agree	4	From 3.41 and less than 4.20	High.
Strongly agree	5	From 4.21 and less than 5.00	Very high.

To answer the main study question, which states, what is the role of digital transformation in Achieving excellence management in Princess Nourah University from the point of view of its leaders?

The researcher answered the sub-questions first as follow:

To answer the first sub-question, that states, "To what extent is digital transformation applied at Princess Nourah University from the point of view of leaders at the university? "

The study axes were analyzed and the respondent's tendencies were known through the arithmetic averages and standard deviations of the first resolution axis (digital transformation) as follows:

Table (5) The Extent Of The Application Of Digital Transformation At Princess Nourah University From The Point Of View Of The Study Sample

#	Phrases	Standard deviation	Arithmetic mean
6	The university has a strategic plan for digital transformation aligned with the university's plan.	.71041	4.5632
12	The university has executive plans for the strategic plan for digital transformation.	.85940	4.4483
13	Digital transformation executive plans are flexible and can be developed to be in line with the country's technical and regulatory developments.	.87206	4.4368
11	The strategic plan for digital transformation at the university is characterized by integration and compatibility with the efforts of other relevant government agencies.	.83190	4.4483
	Total for the first area: Strategic planning for digital transformation	.75197	4.4741
5	The university has developed a plan to develop and prepare leaders and workers to raise the level of knowledge of the digital transformation process.	.88439	4.5747
1	The university develops leaders and workers in all deanships, colleges and departments in a way that achieves integration in the digital transformation process.	.77931	4.6322
7	The university engages its employees in the digital transformation process in innovative and creative ways.	.81895	4.5287
4	University employees are involved in the decision-making process related to digital transformation.	.87114	4.5747
	Total for the second area: preparing workers for digital transformation	.79726	4.5776
3	The university has prepared the institutional infrastructure for digital transformation.	.84291	4.5862
8	The organizational unit of the digital transformation enterprise architecture is linked to senior management with clear tasks and responsibilities.	.88711	4.4713
9	The aforementioned unit operates according to clear and	.86002	4.4598

	effective mechanisms.		
15	The institutional structure has contributed to the development of the university's approach to digital transformation based on criteria that take into account quality, time and cost.	1.13344	4.3793
14	The university has a well-thought-out and announced approved plan to attract competencies and skills to contribute to the digital transformation process.	.91031	4.4253
	Total for the third area: Infrastructure readiness for digital transformation	.85762	4.4741
10	The university is attracting digital talent according to the previously mentioned plan.	.80413	4.4598
16	The university benefits from the outputs of national programs related to the preparation of competencies in the field of digital transformation.	.99477	4.4138
2	The university has mechanisms to stimulate competencies in digital transformation to retain them.	.77086	4.5862
	Total for the fourth area: Attracting competencies and skills for the digital transformation process	.81601	4.5747
	The total for the first axis: digital transformation	.79463	4.4713

It is clear from the previous table (5) that the digital transformation variable came with a high degree, as the general average was 4.4713 with a general standard deviation of 79463, and the results showed that the degree of achieving digital transformation at Princess Nourah University from the point of view of academic leaders at the university was very high among the study sample. It is also shown that the agreement of the views of the study sample on the first axis of the variable about the digital, and their agreement on the first axis ranged between 4.4138 to 4.6322 degrees out of (5) degrees, which are averages indicating two options strongly agree on the study tool, and where the overall average was 4.4713, which is an average indicating a strongly agree option. As for the standard deviation related to the first axis, which is related to the digital transformation variable, it ranges from .77931 to .99477, which indicates the homogeneity of the responses of the study sample.

The following is the order of the first axis of the digital transformation variable in descending order according to the degree of approval by the members of the study sample, which are as follows:

1. The university develops leaders and workers in all deanships, colleges and departments in a way that achieves integration in the digital transformation process.
2. The university has mechanisms to stimulate competencies in digital transformation to retain them.
3. The university has prepared the institutional infrastructure for digital transformation.
4. University employees are involved in the decision-making process related to digital transformation.
5. The university has developed a plan to develop and prepare leaders and workers to raise the level of knowledge of the digital transformation process.

6. The university has a strategic plan for digital transformation aligned with the university's plan.
7. The university engages its employees in the digital transformation process in innovative and creative ways.
8. The organizational unit of the digital transformation enterprise architecture is linked to senior management with clear tasks and responsibilities.

To answer the second sub-question, which states: "What is the level of achievement of excellence management at Princess Nourah University from the point of view of leaders at the university? "

The second axis of the questionnaire was analyzed to know the tendencies of the respondent through the arithmetic averages and standard deviations as in the following table (6):

Table (6) The Level Of Achievement Of Excellence Management At Princess Nourah University From The Point Of View Of The Study Sample

#	Phrases	Standard deviation	Arithmetic mean
5	The senior management at the university develops programs to improve administrative work at all levels to achieve excellence in administrative work.	.71014	4.5632
7	The university's senior management prepares integrated plans for talent management and development.	.86096	4.5057
8	Identify the functional needs of the university in light of the requirements of excellence	.91294	4.4713
9	The senior management follows up the implementation of the university's development plans and excellence.	.96213	4.4598
14	The strategic plan adopted by the university stems from the needs of all beneficiary parties.	.96004	4.4253
15	The university involves all parties from students, academics, the local community, and the labor market in preparing its strategic and development plans.	1.01565	4.3908
13	The University develops plans and programs for sustainable professional development in light of the results of self-evaluation of performance.	.92299	4.4253
5	The leadership at the university supports modern teaching strategies that encourage scientific research and experimentation.	.71041	4.5632
11	Senior management translates the University's strategic objectives into work programs.	.85940	4.4483
12	Employees shall be given sufficient powers to accomplish their tasks.	.87206	4.4368
10	Modern technologies are used in administrative processes at the university.	.83190	4.4483
4	The university's senior management encourages innovation in process development activities.	.88439	4.5747
1	Senior management employs information systems to support the University's objectives.	.77931	4.6322
6	There are evaluation programs that ensure the achievement of the university's goals.	.81895	4.5287
3	The senior management at the university is keen to exchange information and ideas among employees.	.87114	4.5747
2	The university's senior management increases opportunities for creativity by optimizing the investment of its information resources.	.84291	4.5862
Second Theme: Excellence Management		.76368	4.5029

By reading the previous table No. (6), we notice that the excellence management variable came with a high degree, as the general average was 4.5029 with a general standard deviation of .76368. Therefore, the results proved that the level of achievement of excellence management at Princess Nourah University from the point of view of leaders at the university is very high. The results also show the agreement of the views of the study sample on the second axis of the variable of managing excellence, and their agreement on the first axis ranged between 4.3908 to 4.6322 degrees out of (5) degrees, which are averages indicating the options strongly agree and agree on the study tool, and where the overall average was 4.6322, which is an average indicating a strongly agree option.

The standard deviation related to the second axis, which is related to the excellence management variable, ranges from 1.02850 to .77931, which indicates the homogeneity of the responses of the study sample. The second axis of the variable of excellence management was arranged in descending order according to the degree of approval by the members of the study sample, which are as follows:

1. Senior management employs information systems to support the University's objectives.
2. The university's senior management increases opportunities for creativity by optimizing the investment of its information resources.
3. The senior management at the university is keen to exchange information and ideas among employees.
4. The university's senior management encourages innovation in process development activities.
5. The leadership at the university supports modern teaching strategies that encourage scientific research and experimentation.
6. There are evaluation programs that ensure the achievement of the university's goals.
7. The university's senior management prepares integrated plans for talent management and development.

Third sub-question: Is there a correlation between the degree of availability of digital transformation in management and the level of excellence management at the university from the point of view of leaders at the university?

To test this hypothesis, the linear correlation coefficient was calculated for the axis of digital transformation and excellence management:

Table (7): Calculation Of the Correlation Coefficient Between Digital Transformation And Excellence Management

Second Theme: Excellence Management	
The first axis: Digital transformation	.979**

P-Value

.000

The previous table (7) indicates that there is a significant correlation between Digital transformation and excellence management, as the value of the correlation coefficient between them reached $.98^{**}$, a value that reflects the existence of a statistically significant positive relationship with a confidence level of (95%), as this correlation reinforces the importance of digital management in achieving excellence management at Princess Nourah University.

10.6 Results

This research raised main question then emerged three sub-questions of the extent to which there is a relationship between digital and excellence management. In the following paragraphs, there is a summarize of the most important findings of the study.

1. The university develops leaders and workers in all deanships, colleges and departments in a way that achieves integration in the digital transformation process.
2. The university has mechanisms to stimulate competencies in digital transformation to retain them.
3. The university has prepared the institutional infrastructure for digital transformation.
4. University employees are involved in the decision-making process related to digital transformation.
5. The university has developed a plan to develop and prepare leaders and workers to raise the level of knowledge of the digital transformation process.
6. The university has a strategic plan for digital transformation aligned with the university's plan.
7. The university engages its employees in the digital transformation process in innovative and creative ways.
8. The organizational unit of the digital transformation enterprise architecture is linked to senior management with clear tasks and responsibilities.
9. Senior management employs information systems to support the University's objectives.
10. The university's senior management increases opportunities for creativity by optimizing the investment of its information resources
11. The senior management at the university is keen to exchange information and ideas among employees
12. The university's senior management encourages innovation in process development activities.
13. The leadership at the university supports modern teaching strategies that encourage scientific research and experimentation.

14. There are evaluation programs that ensure the achievement of the university's goals.
15. The university's senior management prepares integrated plans for talent management and development.
16. There is a significant correlation between Digital transformation and excellence management, as the value of the correlation coefficient between them was .98^{**}, a value that reflects a positive statistically significant relationship with a confidence level (95%), as this correlation reinforces the importance of digital transformation.
Excellence Department at Princess Nourah University.

This summary of the result answer the main question and showed the digital transformation has role in Achieving excellence management in Princess Nourah University from the point of view of its leaders.

10.7 Discussion

The results of the study showed that Princess Nourah University from the point of view of the study sample prepared the institutional infrastructure for digital transformation. This finding is consistent with the studies of Florenc Marin & Bolliger (2022), McHone (2020), Moja (2021), and Schultz et al (2007) in that digital transformation in higher education institutions helps to build an important technical infrastructure for management and e-learning.

The results of the study also showed that Princess Nourah University involves the university's employees in the decision-making process related to digital transformation, and this is consistent with what was stated by (Alhubaishy & Aljuhani, 2021; Aljaber, 2020; Abiodun et al, 2022; Agostino, 2021; Bianchini et al, 2012; Bridgstock, 2016; Marini & Agostino, 2022; Pamela Roberts, et al, 2022; Sheng,2022; Shephard, & Pookulangara, 2020; Simone,2021; Taormina & Baraldi, 2022) that digital transformation has an important role in business governance and its practice with transparency so that information is circulated in a visible way to all. In addition, the results confirmed that the university is involving its employees in the digital transformation process in innovative and creative ways. This is consistent with what was mentioned by Hong (2020), Dendir and Maxwell (2020), Hussein, et al, (2020) that one of the goals involved in the digital transformation process is to generate value through digital thinking and innovation.

Furthermore, the results confirmed that the degree of application of excellence management at Princess Nourah University was very high, and the paragraphs with the highest arithmetic averages respectively were as follows; Senior management employs information systems to support the university's goals, Senior management at the university increases opportunities for creativity by optimizing the investment of its information resources, Senior management at

the university is keen to exchange information and ideas among employees, Senior management at the university encourages innovation in process development activities, supports leadership The university has modern teaching strategies that encourage scientific research and experimentation, there are evaluation programs that ensure the achievement of the university's goals. This is consistent with reported studies (Calvo-Mora et al, 2014; Gonzalez, et al 2008; Johnson,2021; Ko, 2021; Narasimhan & Schoenherr, 2012; Ninlawan & Areerachakul, 2015; Umit Bititci & Aylin, 2016), which showed that one of the requirements for achieving excellence in management is; the existence of an integrated system of policies that organize and govern work in the organization and define the duties, responsibilities and powers of each individual in the organization so that it coordinates decision-making with the participation of all. This achieves integration and coherence between the elements of the administrative system, the existence of agile organizational structures based on scientific foundations that take into account the flow of information and the intertwining of work relationships so that they are flexible structures that are commensurate with performance requirements. They are adaptable and modifiable based on internal and external variables, and the use of an integrated information system that includes mechanisms to monitor the required information, which includes information on decision support, performance follow-up, total quality management that works on inputs, processes and outputs, and creating an attractive environment that works on quality control. This indicates that Princess Nourah University has achieved the requirements of excellence, and therefore the results came that the extent of its application of excellence management in its management was high.

11: Limitations and directions for future research

There are some limitations that must be taken into account before generalizing the results, as the research was applied in only one university and for a specific number of people, as the study population was 113 and the research sample was only 87 academic leaders, and the study was conducted after the Corona pandemic, as many organizations turned to Technology during the pandemic. Accordingly, the researcher recommends conducting more future studies on a larger number of organizations and a larger number of individuals so that the results of the study can be generalized if they are consistent with those studies.

12: Conclusion and Recommendations:

Through this study, the role of digital transformation in achieving excellence management is identified, as this study was conducted at Princess Nourah University and the following questions were asked: What is the reality of digital transformation at Princess Nourah University from the point of view of leaders at the university? What is the degree to which excellence management at Princess

Nourah University is achieved from the point of view of leaders at the university? Finally, the question was raised: Is there a statistically significant relationship between digital transformation and excellence management at Princess Nourah University? The point of view of the leaders at the university were surveyed. Thus, to achieve the objective of the study, the descriptive approach was followed, where the study tool was distributed to the leaders at Princess Nourah University. The results showed that digital transformation at Princess Nourah University is highly achieved, and excellence management is also applied at the university to a high degree, and there is a statistically significant positive relationship between the application of digital transformation and achieving excellence management.

Based on the aforementioned, the study recommends the following for universities, so they can benefit from Princess Nourah University experience;

- The universities have to have digital transformation standards must be in place that take into account quality, time and cost.
- The universities must have a well-thought-out and announced approved plan to attract competencies and skills to contribute to the digital transformation process.
- Digital transformation operational plans in universities must be flexible as they can be developed to comply with local and global technical and regulatory developments.
- The universities must have implementation plans for the strategic plan for digital transformation.
- The strategic plan for digital transformation at the universities should be characterized by integration and compatibility with the efforts of other relevant government agencies.
- The universities must involve all parties from students, academics, the local community, and the labor market in preparing its strategic and development plans related to digital transformation.
- The universities must give employees sufficient powers to accomplish their tasks.
- Senior management should translate the university's strategic objectives into work programs.
- Modern technologies should be used in the administrative processes of the universities.

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