


EXPLORING THE ROLE OF LEADERSHIP, WORK ENVIRONMENT, IT ALIGNMENT AND COMPANY PERFORMANCE ON THE DIGITAL TRANSFORMATION: A STUDY ON THE PRIVATE SECTOR COMPANIES IN WESTERN REGION, SAUDI ARABIA

Nada Alasiri ^A, Zenah AlKubaisy ^B



ARTICLE INFO	<u>ABSTRACT</u>
<p>Article history:</p> <p>Received 30 Dezember 2021</p> <p>Accepted 07 February 2022</p>	<p>Purpose: The purpose of the study is to investigate the role of leadership, work environment, IT alignment and company performance on the digital transformation of private sector companies in the Western Region of Saudi Arabia. The research problem is the lack of studies about digital transformation in Saudi Arabia. Thus, the research question can be formulated as “what are the implications of leadership, work environment, alignment of IT processes, and company performance on the digital transformation of a company?”</p>
<p>Keywords:</p> <p>Digital transformation; Leadership; Work environment; IT processes alignment; Company performance.</p>	<p>Theoretical Framework: The framework of the study is adopted from the attributes of (1) leadership, (2) work environment, (3) IT processes alignment and (4) company performance. This framework aims to provide understanding on how these variables affect the digital transformation of a company.</p> <p>Methodology: Primary as well as secondary data have been collected. A survey was conducted on a sample of (461) participants through online questionnaire. The approach chosen for the study is the Quantitative Deductive Approach (QDA), and the data were analyzed using SPSS.</p>
	<p>Results and Conclusion: The results of the study concluded that there is a significant positive correlation of leadership, work environment, alignment with IT processes and company performance on the digital transformation.</p> <p>Research Implications: The study verifies the influence of leadership, work environment, IT processes and company performance on the digital transformation. This is helpful on the managerial level for organizations which are willing to adopt digital transformation. On the academic scope, the study adds contribution to the literature of digital transformation in Saudi Arabia. Socially, it is significant to keep pace with the digitalization trend that is evolving rapidly in the Saudi society.</p> <p>Originality: This study is a pioneering attempt to enhance the management practices in private sector companies to explore the role of leadership, work environment, alignment with IT processes and company performance on the digital transformation. The findings should motivate organizations to consider these variables when seeking to adopt digital transformation.</p> <p>Doi: https://doi.org/10.26668/businessreview/2022.v7i2.0500</p>

^A Department of Management Information System. Faculty of Economics and Administration - King Abdulaziz University. Jeddah, 21589, Saudi Arabia. E:mail: Nada.Alasiri@gmail.com Orchid: <https://orcid.org/0000-0002-2627-1920>

^B Department of Management Information System. Faculty of Economics and Administration - King Abdulaziz University. Jeddah, 21589, Saudi Arabia. E:mail: Zmalkubaisy@kau.edu.sa Orchid: <https://orcid.org/0000-0001-9636-2791>

EXPLORANDO O PAPEL DA LIDERANÇA, AMBIENTE DE TRABALHO, ALINHAMENTO E DESEMPENHO DA EMPRESA NA TRANSFORMAÇÃO DIGITAL: UM ESTUDO SOBRE AS EMPRESAS DO SETOR PRIVADO NA REGIÃO OCIDENTAL, ARÁBIA SAUDITA

RESUMO

Objetivo: O objetivo do estudo é investigar o papel da liderança, ambiente de trabalho, alinhamento de TI e desempenho da empresa na transformação digital das empresas do setor privado na Região Oeste da Arábia Saudita. O problema da pesquisa é a falta de estudos sobre a transformação digital na Arábia Saudita. Assim, a questão da pesquisa pode ser formulada como "quais são as implicações da liderança, do ambiente de trabalho, do alinhamento dos processos de TI e do desempenho da empresa na transformação digital de uma empresa".

Estrutura teórica: A estrutura do estudo é adotada a partir dos atributos de (1) liderança, (2) ambiente de trabalho, (3) alinhamento dos processos de TI e (4) desempenho da empresa. Esta estrutura tem como objetivo proporcionar o entendimento de como estas variáveis afetam a transformação digital de uma empresa.

Metodologia: Foram coletados dados primários e secundários. Foi realizada uma pesquisa com base em uma amostra de (461) participantes através de questionário online. A abordagem escolhida para o estudo é a Abordagem Quantitativa Dedutiva (QDA), e os dados foram analisados utilizando o SPSS.

Resultados e Conclusão: Os resultados do estudo concluíram que existe uma correlação positiva significativa de liderança, ambiente de trabalho, alinhamento com os processos de TI e desempenho da empresa na transformação digital.

Implicações da pesquisa: O estudo verifica a influência da liderança, do ambiente de trabalho, dos processos de TI e do desempenho da empresa na transformação digital. Isto é útil no nível gerencial para organizações que estão dispostas a adotar a transformação digital. No âmbito acadêmico, o estudo acrescenta contribuição à literatura sobre a transformação digital na Arábia Saudita. Socialmente, é significativo acompanhar a tendência de digitalização que está evoluindo rapidamente na sociedade saudita.

Originalidade: Este estudo é uma tentativa pioneira de melhorar as práticas de gestão em empresas do setor privado para explorar o papel de liderança, ambiente de trabalho, alinhamento com os processos de TI e desempenho da empresa na transformação digital. Os resultados devem motivar as organizações a considerar estas variáveis ao buscar adotar a transformação digital.

Palavras-chave: Transformação digital, Liderança, Ambiente de trabalho, Alinhamento de processos de TI, Desempenho da empresa.

EXPLORACIÓN DEL PAPEL DEL LIDERAZGO, EL ENTORNO DE TRABAJO, LA ALINEACIÓN DE LAS TECNOLOGÍAS DE LA INFORMACIÓN Y EL RENDIMIENTO DE LA EMPRESA EN LA TRANSFORMACIÓN DIGITAL: UN ESTUDIO SOBRE LAS EMPRESAS DEL SECTOR PRIVADO EN LA REGIÓN OCCIDENTAL DE ARABIA SAUDÍ

RESUMEN

Propósito: El propósito del estudio es investigar el papel del liderazgo, el entorno de trabajo, la alineación de las TI y el rendimiento de la empresa en la transformación digital de las empresas del sector privado en la región occidental de Arabia Saudí. El problema de la investigación es la falta de estudios sobre la transformación digital en Arabia Saudí. Así, la pregunta de investigación puede formularse como "¿cuáles son las implicaciones del liderazgo, el entorno laboral, la alineación de los procesos de TI y el rendimiento de la empresa en la transformación digital de una empresa?"

Marco teórico: El marco del estudio se adopta a partir de los atributos de (1) liderazgo, (2) entorno de trabajo, (3) alineación de los procesos de TI y (4) rendimiento de la empresa. Este marco tiene como objetivo proporcionar la comprensión de cómo estas variables afectan a la transformación digital de una empresa.

Metodología: Se han recogido datos primarios y secundarios. Se ha realizado una encuesta a una muestra de (461) participantes a través de un cuestionario online. El enfoque elegido para el estudio es el Enfoque Cuantitativo Deductivo (ACD), y los datos fueron analizados utilizando el SPSS.

Resultados y conclusiones: Los resultados del estudio concluyen que existe una correlación positiva y significativa del liderazgo, el ambiente de trabajo, la alineación con los procesos de TI y el desempeño de la empresa en la transformación digital.

Implicaciones de la investigación: El estudio verifica la influencia del liderazgo, el entorno laboral, los procesos de TI y el rendimiento de la empresa en la transformación digital. Esto es útil a nivel directivo para las organizaciones que están dispuestas a adoptar la transformación digital. En el ámbito académico, el estudio contribuye a la literatura sobre la transformación digital en Arabia Saudí. En el ámbito social, es significativo para seguir el ritmo de la tendencia a la digitalización que está evolucionando rápidamente en la sociedad saudí.

Originalidad: Este estudio es un intento pionero de mejorar las prácticas de gestión en las empresas del sector

privado para explorar el papel del liderazgo, el entorno de trabajo, la alineación con los procesos de TI y el rendimiento de la empresa en la transformación digital. Los hallazgos deberían motivar a las organizaciones a considerar estas variables cuando busquen adoptar la transformación digital.

Palabras clave: Transformación digital, Liderazgo, Entorno de trabajo, Alineación de procesos de TI, Rendimiento de la empresa.

INTRODUCTION

The government of the Kingdom of Saudi Arabia has completed, with both great agility and large flexibility, many major initiatives and projects to transform into the digital space, following a well-defined path that started in 2016 when the Kingdom announced its strategic move, Vision 2030. In 2016, the Kingdom launched its ambitious Vision 2030, which includes launching the National Digital Transformation. In 2017, a Royal Decree No. 49584 dated 24/07/2017 was issued to establish the National Committee for Digital Transformation, which consisted of an 11-member ministerial committee. Following in the same year 2017, the Kingdom has established the National Digital Transformation Unit to lead digital transformation in Saudi Arabia.

According to the Saudi governmental website of the National Digital Transformation Unit (2020), digital transformation is a complete transformation whereby business models are redesigned to make use of data and digital developments. Our concern in this study is the role of leadership, work environment, IT alignment and company performance on the digital transformation. Studying the role of these elements on the light of the private sector companies in Western Region of Saudi Arabia is intended to enrich the available literature of digital transformation in the Kingdom.

Companies usually resort to measuring the impact of their efforts in the digital transformation process, and to ensure that the transformation process is beneficial and successful. Also, companies, when they strategically shift to digitalization, usually adopt the incremental approach along with incremental development of their digital services and processes. Usually companies do not resort to a radical transformation at once, as the effects of such radical transformation are still not academically proven.

Therefore, this study is a step to explore the role of company leadership, work environment, IT alignment and company performance on the digital transformation. Such aim is important because the journey of digital transformation is relatively new and, therefore, could be possibly surrounded by many hidden elements. Moreover, since companies usually resort to gradual transformation rather than immediate transformation in order to preserve their

operations and avoid uncertainty impacts that could affect their customer base or their results, it becomes imperative to explore some of the elements that might affect digital transformation since it is the future of corporate world. As for the motivation for the study, it is generally universal that we refer to the 18th century as the agricultural age, the 19th century as the industrial age and the 20th century as the information age where it witnessed the birth of the World Wide Web and other information technology tools that have changed our world forever. Having already entered the 21st century, it kind of arouses motivation and curiosity to know the role of different variables on the digital transformation. Therefore, this study is an attempt to explore the role of leadership, work environment, IT alignment and company performance on the digital transformation with particular focus on Western Region in Saudi Arabia, being one of the fastest developing countries in that area. It is imperative to study the role of these elements on the digital transformation in order to be able to predict and face its consequences in the future.

This study is important because Saudi Arabia is one of the most fast paced developing countries in the digitalization of its government as well as private sector. Therefore, the study contributes to the literature by addressing certain roles that are related to the digitalization of businesses; these aspects are the leadership, work environment, IT alignment and company performance. Studying these roles on the light of the private sector companies in Western Region of Saudi Arabia will add to the academic literature of digital transformation in the Kingdom and help in future studies.

LITERATURE REVIEW

Saudi Arabia's Ranking in "Ease of Doing Business" Global Index

Being one of the world growing powers, Saudi Arabia has witnessed positive economic transformation in view of its approach to encourage investment and private businesses. According to the World Bank (2020) "Ease of Doing Business Index (EDBI)", Saudi Arabia took an advanced position among other Arab countries being number 2 after Bahrain and number 62 on the whole world. The rankings were depicted as of May 2019, taking the typical middling of each county's score on how easy it is to conduct a business therein. It is noteworthy to mention also that the classifications on the table were based on specific scores that are not rounded. In accordance with the same source as well, the economic entities, which have the most notable improvement in Doing Business 2020 are Saudi Arabia, Jordan, Togo, Bahrain, Tajikistan, Pakistan, Kuwait, China, India, and Nigeria. The top ten improvers are Saudi Arabia,

Jordan, Togo, Bahrain, Tajikistan, Pakistan, Kuwait, China, India, and Nigeria, with Saudi Arabia being number one.

As a matter of fact, it is not surprising that Saudi Arabia offers the world's most competitive energy prices to investment projects. Hence, as a country it strives to become the number 1 destination for investors and private businesses.

Digital Transformation Governance

Al-Otaibi and Al-Mufeez (2021) researched the topic of the digital transformation governance in educational administrations in the Kingdom of Saudi Arabia in the light of international practices. The study aimed to identify the concept of digital transformation governance, explaining global practices in the field of digital transformation governance in educational institutions, and showing the ways to benefit from it in developing the performance of educational administrations in the Kingdom of Saudi Arabia, as well as identifying the difficulties that may face its application. To achieve these goals, the descriptive and analytical approach was used, literature review and theoretical and applied studies on digital transformation governance, and websites on global practices.

However, this is done through a comprehensive analysis of its content. The results concluded that the governance of digital transformation is an integrated and comprehensive process in which the educational departments of the Saudi Ministry of Education move to follow a strategy or an official framework aimed at controlling the quality of outputs while preserving the privacy and integrity of data and obtaining the satisfaction of all parties related to the educational system, and provides an existing structure over the authorities and management, accountability, resources and services, technologies and technology of operational processes. And each of international practices has some advantages that distinguish it from others in the application of digital transformation governance in educational administrations, as each practice provides a guiding torch to trace the most appropriate industry practices, which a medium even educational entity can take after for implementation, managing and monitoring. Meanwhile, the study of Al-Otaibi and Al-Mufeez (2021) indicated that the digital transformation governance provides guidance and measures for effective utilization of information technology resources and processes within the organization.

The results of the study concluded the existence of a number of challenges, which could face digital transformation governance in educational departments, the most important of which are the weakness of the legislative aspects necessary to implement this governance, the lack of clear strategies for the governance of digital transformation, in addition to the inadequacy of

the organizational culture of educational departments to implement this type of governance, in addition to the limited qualified human cadres in this field.

Leadership Role in Business Transformation

Larjovuori, Bordi and Tammi (2018) examined the responsibility of leadership in the digital business transformation. They argued about the significance of leadership role in carrying out the mindset of digital transformation. Moreover, unfortunately the leadership in some organizations prefers to react to threats rather than be proactive about the future. Hence, the study assumed that leadership is not in all times in continuous interaction with organizational strategy, structure, culture, and processes if they do not examine and assess digital transformation and its impact on their organizations. Therefore, the study of Larjovuori, Bordi and Tammi (2018) concluded good approaches regarding the digital transformation in addition to the complicated role, which leadership has in such transformation.

Business-IT Alignment (BITA) in the Era of Digital Transformation

Jonathan, Rusu and Perjons (2020) studied business-IT alignment in the era of digital transformation. The findings concluded to identify the gap between literature and implementation, a thorough literature survey is done. A total of 94 papers were found by searching databases that index prominent IS journals and conference proceedings between 2014 and 2018. The review's study found that there is still a conceptual discussion about the BITA construct, as well as fresh study subjects. My opinion on this study is that it is good to work on strategies and methods that already exist in order to minimize the negative effects and increase the efficiency.

Haffke (2017) studied the effects of digital transformation of companies on the company C-level suit (leaders), the IT function, and on the business-IT alignment as well. The study indicated that additionally to the changes on leadership level, digital transformation brings about transformation in the IT functions through a bimodal IT model. This model takes advantage of the available data and at the same time creates new systems to enhance the digital transformation. Haffke (2017) found out that IT effectively supports the digital transformation of the business and, moreover, in the longer term, the IT function adopts governance principles and cultural aspects that will effectively support digital business transformation.

Organization Size and Performance

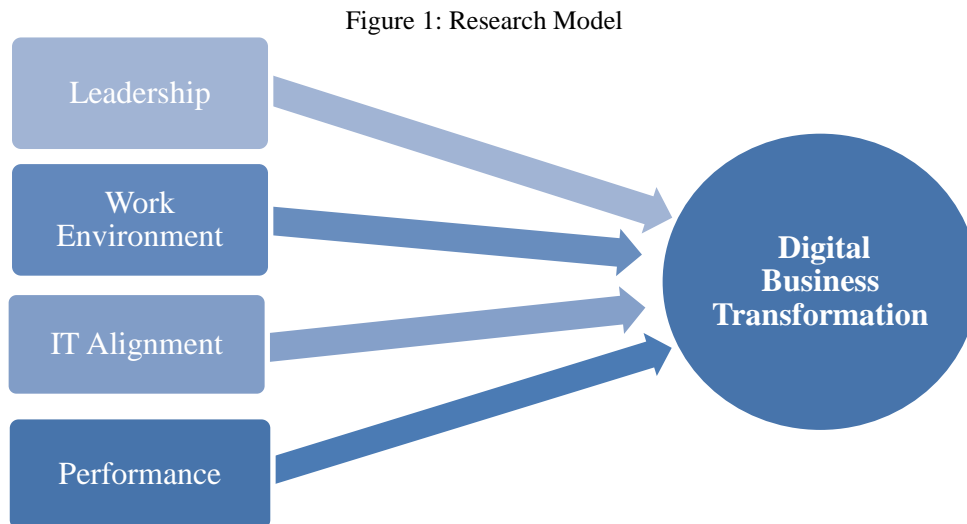
Jain (2011) researched the effect of the size of the organization and its entrance into alliances on the performance of the organization. Jain (2011) and Sangoma (2021) classified companies according to number of employees into small and medium-sized as well as large organization. Jain (2011) study is built around the controversy that the size of the organization is controlled by several important factors, including external and internal, which determine the size that the organization takes in the world of business or production. Since the mid-1960s, most of the large businesses that exist have lost market share world-wide (Friedman 1998 in Jain, 2011). That is why a very good number of exporters are small businesses. The reasons attributed for the successes of smaller organizations are stretchy, have wide reach, flat organic structure, and simple niche finding entrepreneurs. On the other hand, large size organizations have the advantages of economies of scale but under stable market conditions.

Nazarian & Atkinson (2015) investigated the relationship between organizational culture and organizational effectiveness in small and medium size organizations in Iran. Using the Competing Values Framework, their study examined the level of impact as to how organizational culture may affect organizational effectiveness in a culture and how this is related to the organization's size. The results of Nazarian & Atkinson (2015) study confirmed that there is a strong relationship between organizational culture and effective performance in small and medium size organizations for digitalization. Furthermore, the results confirmed that there is a moderate impact of organizational size on the culture–effectiveness relationship.

RESEARCH DESIGN AND HYPOTHESES DEVELOPMENT

Research Design

The approach chosen for this study is the Quantitative Deductive Approach (QDA), because it is more suitable for verifying the study objectives. The design is used to collect data and help form a solid understanding of the study problem. Research model is the chart that clarifies the relation between independent and dependent variables, in light of study model, study can state hypothesis need to be validated under the objectives of the study. Based on that, the study model can be conceptualized as in Figure 1.



Research Hypotheses

The following hypotheses are assumed to be tested:

H1: There is a positive relation between company leadership and implementation of digital transformation.

H2: Work environment is positively affected by digital transformation.

H3: Aligned IT processes help in digital transformation.

H4: Company performance growth is optimized by digital transformation.

RESEARCH METHODOLOGY

Research Approach and Strategy

Saunders (2019) classified study into two main categories: deductive approach and inductive approach. Deductive reasoning works from the more general to the more specific which called a "top-down" approach. In deductive approach, conclusion follows logically from premises (available facts) (Burney, 2018). The deductive method can start from any theoretical base, from which any number of alternative hypotheses could be deduced (Woiceshyn & Daellenbach, 2018). Otherwise, Inductive reasoning works the other way, moving from specific observations to broader generalizations and theories, and called this a "bottom up" approach. Conclusion is likely based on premises, involves a degree of uncertainty (Burney, 2018). Since current study is quantitative, then it is suitable to follow the deductive approach.

Population and Sampling Method

In this study, the target population is all employees work at private sector companies in the western region in the Kingdom of Saudi Arabia during 2021. According to Labor Market (2021), The total number of employees registered in General Organization for Social Insurance as of 2021 are (8,190,170) employees. The number of employees registered in General Organization for Social Insurance under Western Region as of 2021 is 2,012,543 employees. The study sample size is defined as the number of required valid responses (Vasileiou et al., 2018). Convenience sampling was chosen from study population, also known as availability sampling, which depends on the data collection from population members, whose suitability is accessible to contribute effectively in the study. The sample size of this study is determined by using Steven K. Thompson formula: (Robert et al., 1970)

$$n = \frac{N * p(1 - p)}{[(N - 1) * (\frac{d^2}{Z^2}) + p(1 - p)]}$$

Where:

N: Population size, p: probability value = 0.5m d: error = 0.05, Z: Standard normal value =1.96.

According to Steven K. Thompson formula, the sample size is (461) of employees who work at the private sector companies in the Western Region in the Kingdom of Saudi Arabia.

Data Collection Method

The data was collected using the research tool, which is questionnaires, which were converted into an electronic questionnaire using Google Forms as a tool for conducting the questionnaire. Then, it is distributed in both English and Arabic, as the majority of the society in Saudi Arabia understands the Arabic language more easily, and it was distributed to the largest scale through social media and emails.

Data was collected through a questionnaire, which was distributed by the researcher at the study sample, then unloaded the questionnaire into SPSS v.23 software. Study sample will support enough data and information on the problem of the study. According to Schindler & Cooper (2019) “information and statistics are used for analysis can be divided into primary and secondary data.”

Validity and Reliability

Validity Test

All Pearson correlations are statistically significant at level ($\alpha=0.01$), and all dimensions correlated with total scale of the questionnaire. Pearson correlation coefficients ranged between (0.69-0.89) with a good degree of validity, which means that it establishes the desired measurement goals. Hence, the tool validity is satisfied in this study.

Reliability Test

The overall reliability is (0.75 / acceptable) which is sufficient to guarantee a reliable internal consistency of the questionnaire. "Performance" dimension has the highest Cronbach's Alpha value with (0.8 / good), but "IT alignment" dimension has the lowest Cronbach's Alpha value with (0.71 / acceptable). The values prove reliability for the study tool.

Data Analysis Methods

The software used for this study is SPSS to analyze the data collected in order to answer the study questions, and test the study hypotheses. Descriptive and inferential statistics used to test hypotheses and answer the study questions. The following descriptive and inferential statistics were used to test hypotheses:

1. Descriptive Statistics (means and standard deviations).
2. Cronbach's Alpha test to measure reliability .
3. Pearson's correlation coefficient to measure validity and the relationship between independent and dependent variables.
4. Simple linear regression to predict for future values for dependent variables, and to measure the influence of independent variable on dependent.

RESULTS

Background data of the respondents

Majority of the sample size are from Jeddah governorate with (53.1%), while the less number of sample are from Khyber with (0.2%). According to participants years of professional experience, majority have (16-20 years) with (50.3%) of sample size, while participants with experience (21+ years) are the least in the sample. (46.9%) of sample size has Master's Degree, while (9.1%) of sample has Doctorate / PhD. (29.7%) of the study sample has a business administration major as an academic major, while there are (0.7%) of the sample who specialize in home economics and (0.7%) with medicine as academic major. (42.3%) of participants work

at companies with (501 – 1000 (large)) of employees, while (10.2%) of participants work at (1 – 100 (small)) of employees. Majority of sample are males with (67.5%), while females percentage is (32.5%) from sample size. Participants with age category (40-49 years old) have the major percentage of sample size with (49.9%), while respondents with age (49+ years old) have the lowest percentage with (6.3%). (29.9%) of participants are Senior/Managerial, while (3.7%) of them are business owners. (21.5%) of participants are working at commercial services company, while (0.9%) of them are working at transportation companies.

Hypotheses testing with equation modeling

The hypotheses developed as step of the project of providing answers to study questions and problem. The hypotheses were tested and the results summarized in table 1. The researcher finds good support for all the proposed hypotheses.

Table 1: An Assessment of the Hypothesis Model

No.	Hypothesis Path	R ²	Path Coefficient (β)	T-Value	P-Value Sig.
H ₁	Company leadership → Digital transformation	0.47	0.686	20.196	0.000
H ₂	Work environment → Digital transformation	0.426	0.652	18.443	0.000
H ₃	Aligned IT processes → Digital transformation	0.438	0.662	18.91	0.000
H ₄	Company performance → Digital transformation	0.401	0.633	17.52	0.000

Result of testing Hypothesis No. One

H₁: “There is a positive relation between company leadership and implementation of digital transformation.”

To examine if there is a positive relation of company leadership as an independent variable on digital transformation as dependent variable, simple linear regression analysis was conducted and the results are displayed in table 2.

Table 2: Simple Linear Regression Analysis to examine company leadership on digital transformation

Model	Un-standardized Coefficients		Standardized Coefficients	T	p-value	R ²
	B	Standard Error	Beta			
1	(Constant)	1.396	0.118	11.856	0.000	0.47
	Company leadership	0.617	0.031	20.196	0.000	

a. Dependent Variable: Digital transformation

It is noticed in table 2 that the regression coefficient of the independent variable company leadership is equal to (.686) with T-test is equal to (20.196) which is statistically significant at (0.05) level, also the determination coefficient (R^2) indicates to the interpret variance that independent variable company leadership from the dependent variable digital transformation, so independent variable company leadership interpret about (47%) of the variance in dependent variable digital transformation. This indicates that there is a significant positive correlation between company leadership, and digital transformation, which means that company leadership has a significant influence on digital transformation. Accordingly, hypothesis (H_1) is supported.

Result of testing Hypothesis No. Two

H_2 : “Work environment is positively affected by digital transformation.”

To examine if there is a positive relation of work environment as an independent variable on digital transformation as dependent variable, simple linear regression analysis was conducted and the results are displayed in table 3.

Table 3: Simple Linear Regression Analysis to examine work environment on digital transformation

Model	Un-standardized Coefficients		Standardized Coefficients	T	p-value	R^2	
	B	Standard Error	Beta				
1	(Constant)	1.292	1.34		9.625	0.000	0.426
	Work environment	0.639	0.035	0.652	18.443	0.000	

a. Dependent Variable: Digital transformation

It is noticed in table 3 that the regression coefficient of the independent variable work environment is equal to (.652) with T-test is equal to (18.443) which is statistically significant at (0.05) level, also the determination coefficient (R^2) indicates that the independent variable work environment interpret about (43%) of the variance in dependent variable digital transformation. This indicates that there is a significant positive correlation between work environment, and digital transformation, which means that work environment has a significant influence on digital transformation. Accordingly, hypothesis (H_2) is supported.

Result of testing Hypothesis No. Three

H_3 : “Aligned IT processes help in digital transformation.”

To examine if there is a positive relation of aligned IT processes as an independent variable on digital transformation as dependent variable, simple linear regression analysis was conducted and the results are displayed in table 4.

Table 4: Simple Linear Regression Analysis to examine Aligned IT processes on Digital transformation

Model	Un-standardized Coefficients		Standardized Coefficients	T	p-value	R ²
	B	Standard Error	Beta			
1	(Constant)	1.449	0.123	11.785	0.000	0.438
	Aligned IT processes	0.595	0.031	18.910	0.000	

a. Dependent Variable: Digital transformation

It is noticed in table 4 that the regression coefficient of the independent variable aligned IT processes is equal to (.662) with T-test is equal to (18.91) which is statistically significant at (0.05) level, also the determination coefficient (R²) indicates that the independent variable aligned IT processes interpret about (43%) of the variance in dependent variable digital transformation. This indicates that there is a significant positive correlation between aligned IT processes, and digital transformation, which means that aligned IT processes help in digital transformation. Accordingly, hypothesis (H3) is supported.

Result of testing Hypothesis No. Four

H₄: “Company performance growth is optimized by digital transformation.”

To examine if company performance growth is optimized by digital transformation; i.e. there is a positive relation of company performance as an independent variable on digital transformation as dependent variable, simple linear regression analysis was conducted and the results are displayed in table 5.

Table 5: Simple Linear Regression Analysis to examine company performance on Digital transformation

Model	Un-standardized Coefficients		Standardized Coefficients	T	p-value	R ²
	B	Standard Error	Beta			
1	(Constant)	1.514	1.29	11.761	0.000	0.401
	Company performance	0.591	0.034	17.52	0.000	

a. Dependent Variable: Digital transformation

It is noticed in table 5 that the regression coefficient of the independent variable company performance is equal to (.633) with T-test is equal to (17.52) which is statistically significant at (0.05) level, also the determination coefficient (R²) indicates that the independent variable company performance interpret about (40%) of the variance in dependent variable digital transformation. This indicates that there is a significant positive correlation between company performance, and digital transformation, which means that company performance growth, is optimized by digital transformation. Accordingly, hypothesis (H₄) is supported.

DISCUSSION AND CONCLUSION

The variances in the demographic data add consistency to the results because it integrates a wide scale of responses, thus giving comprehensive coverage of the study findings. The statistical analysis of the variables of the study had identified the mean score for each of the variables. As a general rule, the higher the mean score the higher the expectation and vice versa. “Company leadership” overall mean is (3.78/ Agree), which indicates that it has a high moderate to strong effect on the digital transformation. “Work environment” showed a similar results of overall mean reaching (3.81/ Agree), thus indicating that it has the same high moderate to strong effect on the digital transformation of the organization. “Aligned IT processes” came as close to the other variables with an overall mean of (3.83 / Agree) thus rendering the same effect level. “Company performance” and “Digital transformation” showed as well an overall mean of (3.74/ Agree) and (3.73/ Agree) respectively. Therefore, it can be demonstrated that the variables of the study have a high moderate to strong effect on the digital business transformation of the organization.

The regression coefficient of the independent variable Company leadership is equal to (.686) with T-test equal to (20.196) which is statistically significant at (0.05) level, with determination coefficient (R^2) indicating that independent variable company leadership interprets about (47%) of the variance in dependent variable digital transformation. This indicates that there is a significant positive correlation between company leadership, and digital transformation, which means that company leadership has a significant influence on digital transformation. This is in line with Brdesee (2021) who emphasized that digital transformation provides huge potentials for building effective, competitive and sustainable societies, by achieving a fundamental change in the services of various parties, including consumers, employees and beneficiaries, while improving their experiences and productivity through a series of proportional processes, accompanied by reformulating the necessary procedures for activation and implementation.

The regression coefficient of the independent variable work environment is equal to (.652) with T-test is equal to (18.443) which is statistically significant at (0.05) level, with determination coefficient (R^2) indicating that the independent variable work environment interprets about (43%) of the variance in dependent variable digital transformation. This indicates that there is a significant positive correlation between work environment and digital transformation, which means that work environment has a significant influence on digital transformation. This is supported by Durowoju (2017) who indicated that digital transformation requires enabling a culture of creativity in the work environment, and involves changing the

core components of the business, from infrastructure, operating models, to marketing services and products. Moreover, Durowoju (2017) emphasized that the cultural transformation of the work environment is necessary to change the mindset of the workers within the organization, without which no digital transformation project will succeed.

The regression coefficient of the independent variable aligned IT processes is equal to (.662) with T-test is equal to (18.91) which is statistically significant at (0.05) level, with coefficient (R^2) indicates that the independent variable aligned IT processes interprets about (43%) of the variance in dependent variable digital transformation. This indicates that there is a significant positive correlation between aligned IT processes, and digital transformation, which means that aligned IT processes help in digital transformation. This is in line with Haffke (2017) who found out that IT effectively supports the digital transformation of the business and, moreover, in the longer term, the IT function adopts governance principles and cultural aspects that will effectively support digital business transformation.

The regression coefficient of the independent variable company performance is equal to (.633) with T-test is equal to (17.52) which is statistically significant at (0.05) level, with the determination coefficient (R^2) indicating that the independent variable company performance interprets about (40%) of the variance in dependent variable digital transformation.. This indicates that there is a significant positive correlation between company performance, and digital transformation, which means that company performance growth, is optimized by digital transformation. This is in line with Nazarian & Atkinson (2015) who studied the companies' performance growth and digitalization in view of the organization size as well and confirmed that there is a strong relationship between organizational culture and effective performance in small and medium size organizations for digitalization.

To conclude, this study has demonstrated that digital transformation is affected by considerable variables in businesses nowadays. There is a significant positive correlation between company leadership, work environment, alignment of IT processes and company performance on one side and digital transformation on the other side. It is important to consider the role of such variables in any digital transformation of businesses. Therefore, it is recommended that companies utilize the initiatives adopted by the Saudi government, in line with Vision 2030, to digitalize their operations, taking into consideration the role of the variables indicated in this study, namely leadership, work environment, IT alignment and company performance. It is also recommended that companies conduct intensive training to their employees on all levels to support digital transformation and to include creative change management mindset in these training programs. Companies are recommended also to adopt

best IT aligned practices that make it easy to transform into digitalization. The world is changing fast, and unless companies realize such change and adopt new digital approaches, they will most probably lag behind.

LIMITATIONS AND FUTURE STUDY

This study has been conducted on the Western Region only of Saudi Arabia, thus having a geographical coverage limitation that might affect the results if demonstrated on another geographical coverage. Moreover, the study focused exclusively on the private sector; hence, different results could be drawn if similar study has been conducted on public sector. Finally, four variables only have been the focus of this study on digital transformation, which are leadership, work environment, IT alignment and company performance.

Therefore, future study in the area of digital transformation can be conducted on a wider geographical coverage, or done on the public sector. Moreover, additional roles of other variables than leadership transformation, work environment, IT alignment and company performance could also be studied in future study.

REFERENCES

- Al-Otaibi, S. and Al-Mufeez, K. (2021). Digital transformation governance in educational administrations in the Kingdom of Saudi Arabia in the light of international practices. *Journal of Arts, Literature, Humanities and Social Sciences*. DOI: 10.33193/JALHSS.66.2021.462
- Brdese, H. (2021). A Divergent View of the Impact of Digital Transformation on Academic Organizational and Spending Efficiency: A Review and Analytical Study on a University E-Service. <https://doi.org/10.3390/su13137048>
- Burney, S.M.A; Saleem, H., (2018). Inductive & Deductive Study Approach, Lecture delivered on 06-03-2008 at Auditorium of Faculty of Arts and Science, University of Karachi, Karachi, Pakistan.
- Durowoju (2017) Impact of Technological Change on SMEs Performance in Lagos, Nigeria. *Economic and Environmental Studies*, Vol. 17, No. 4 (44/2017), 743-756
- Haffke, I. (2017). Implications of Digital Business Transformation for Corporate Leadership, the IT Function, and Business-IT Alignment. Dissertation submitted to the Darmstadt University of Technology
- Jain, A. (2011). The Impact of Organizational Size and Alliance Formations on Perceived Organizational Performance. *Indian journal of industrial relations*. 37. 341-353. <https://cutt.ly/hIjgIqF>
- Jonathan, G., Rusu, L. and Perjons, E. (2020). *Business-IT Alignment in the Era of Digital Transformation*. Singapore.

Labor Market. (2021). General Authority for Statistics. Online, retrieved 30 Dec 2021 from: <https://www.stats.gov.sa/en/814>

Larjovuori, R., Bordi, L. and Tammi, K. (2018). Leadership in the digital business transformation. Article published in the 22nd International Academic Mindtrek Conference. New York: MindTrek Conference. <http://dx.doi.org/10.1145/3275116.3275122>

Mallery, P., & George, D. (2010). SPSS for windows step by step. Allyn & Bacon, Inc.

Miller, J. D. (2012). Five factor model personality disorder prototypes: A review of their development, validity, and comparison to alternative approaches. *Journal of Personality*, 80(6), 1565-1591.

National Digital Transformation Unit (2020). Online, retrieved on 18 Jan 2022 from: <https://ndu.gov.sa/en/about>

Nazarian, A. & Atkinson, P. (2015). Impact of Organizational Size on the Relationship between Organizational Culture and Organizational Effectiveness. *Organizational Cultures: An International Journal*. 16. 1-16. 10. <https://cutt.ly/3Ijd8tL>

Pardede, P. (2018). Identifying and Formulating the Study Problem. *Research in ELT*, 1, 1-13.

Robert V. Krejcie, Daryle W. Morgan (1970). Determining sample size for study activities. *Educational and Psychological Measurement*, vol. 30, 3: pp. 607-610. , First Published Sep 1, 1970

Sangoma (2021) Why Your Company Size Classification Matters? Online, retrieved from: <https://www.sangoma.com/articles/smb-sme-large-enterprise-size-business-matters/>

Saunders, M., Lewis, P., & Thornhill, A., (2019). Study methods for business students, fifth edition, (Edinburgh: Pearson Education Limited) 124-217.

Schindler, and Donald R. Cooper (2019). Business study methods. New York, NY: McGraw-hill education.

Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterizing and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health study over a 15-year period. *BMC medical study methodology*, 18(1), 1-18.

Woiceshyn, J., & Daellenbach, U. (2018). Evaluating inductive vs deductive study in management studies: Implications for authors, editors, and reviewers. *Qualitative Study in Organizations and Management: An International Journal*.

World Bank (2020) Doing Business Database – Online, retrieved from: <http://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>