مجلة جامعة الشارقة للعلوم الإنسانية والاجتماعية

جامعة الشارقة
UNIVERSITY OF SHARJAH

University of Sharjah Journal of Humanities & Social Sciences

A Refereed Scientific journal

Vol. 22, No. 2
Dhul Hijjah1446 A.H. / June 2025 A.D.

ISSN : 1996-2339

University of Sharjah Journal for Humanities & Social Sciences, Volume 22, No. 1 March 2025
https//:doi.org/10.36394/jhss/22/2/15

Assessing the Role of Leadership Competencies in Sustainable Digital Transformation in the UAE

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Received on: 2023-12-05, Accepted on: 2024-08-6,

Abstract:

The purpose of this research paper is to provide a comprehensive examination of the impact of leadership competencies on the long-term viability of digital transformation initiatives in the United Arab Emirates (UAE). Drawing from a multi-disciplinary approach that intersects leadership theory and digital innovation, the study explores how the unique set of leadership skills within the UAE governance context has facilitated a comprehensive and sustainable digital transformation. By conducting a comprehensive review of research articles and analyzing empirical evidence, this study highlights key skills and abilities, including strategic vision, flexibility, digital literacy, and a dedication to ongoing improvement, that play a crucial role in promoting the development of a sustainable digital ecosystem. The results indicate that these skills are not only crucial for instigating digital transformation but also for sustaining progress in the presence of changing technological obstacles. The study

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finds that the success of the UAE in accomplishing a sustainable digital transformation is mainly related to its leadership's proactive engagement with digital trends, investment in human capital, and the construction of robust digital infrastructures. This study contributes to the understanding of the critical role of leadership in ensuring the sustainability of digital transformation efforts in the context of national governance.

Keywords: Leadership Competencies, Digital Transformation, Sustainability, UAE Governance, Digital Innovation, Strategic Vision, Human Capital.

Introduction

The United Arab Emirates (UAE) has initiated a significant role of digital transformation, which has great importance in achieving its Vision 2021 and Centennial 2071 objectives. These goals are aimed at positioning the country as a prosperous knowledge-driven economy. The emergence of leadership competencies has become a fundamental aspect in guiding the digital transition towards sustainability, guaranteeing that the process is not only characterized by innovation, but also by resilience and long-lasting impact. According to Schwab (2018) and the World Economic Forum, it is evident from global trends that the effectiveness of digital transformation initiatives is significantly influenced by the capacity of leaders to adapt, envisage, and facilitate change.

The United Arab Emirates (UAE), in acknowledgment of this fact, has made substantial investments in the enhancement of leadership competencies across several industries. However, there is a lack of comprehensive research on the relationship between leadership abilities and sustainable digital transformation, specifically within the distinctive socio-economic context of the United Arab Emirates (UAE). The significance of leadership in digital transformation has been emphasized in previous scholarly works (Kane et al., 2017; MIT Sloan Management Review). However, there is a noticeable gap in the literature on the incorporation of sustainability considerations within the dynamic digital landscape.

The main focus of this research is to address the existing disparity by evaluating the significance of leadership abilities in facilitating sustainable digital transformation within the United Arab Emirates (UAE). This study aims to examine the role of leadership in both initiating and sustaining digital

innovation, while also ensuring alignment with environmental and socio-economic objectives. The study seeks to provide a valuable contribution to the scholarly discourse around digital transformation(Martínez-Peláez et al., 2023). Specifically, it wants to enhance our comprehension of this phenomenon by delving beyond its temporary nature and exploring how it might be effectively incorporated into the long-term development plans of nations.

The effective execution of digital transformation within any given setting is contingent upon the presence of strong leadership capabilities. In the context of the United Arab Emirates (UAE), where there is a strategic emphasis on sustainable digital transformation, the efficacy of leadership assumes a crucial significance (Warner, K. S., & Wäger, M. 2019). As the United Arab Emirates (UAE) strives to transition from a reliance on oil to a more knowledge-based and innovation-driven economy, the capabilities and skills possessed by its leaders serve as a crucial factor in evaluating and achieving the potential for long-term transformation.

In the digital era, leaders are expected to possess technological literacy as an essential and indispensable ability. The comprehension of technologies such as artificial intelligence, blockchain, and data analytics is crucial for leaders to make well-informed choices that drive the digital agenda of the United Arab Emirates (UAE) in a progressive manner (Rasheed, Z. 2022). Moreover, leaders need to nurture an innovative mentality not just within their own self but also inside their own businesses. This is crucial in order to establish a work environment that actively encourages experimentation, supports agile approaches, and promotes a culture of continuous learning.

Furthermore, executives must possess a heightened awareness of the social, economic, and environmental ramifications of technology in order to effectively drive a sustainable digital transformation. This entails lobbying for and implementing digital solutions that facilitate social inclusion, foster economic opportunity, and promote environmental stewardship. The aforementioned entails a dedication to upholding ethical principles and implementing appropriate measures in the deployment of technology, safeguarding data privacy, and ensuring cybersecurity (Dhirani et al., 2023).

The United Arab Emirates has used a diverse strategy in the development of leadership abilities. The allocation of resources towards education and training initiatives, shown by the establishment of institutions like the Mohammed Bin Rashid School of Government, demonstrates the country's deliberate approach to cultivating a group of individuals capable of assuming leadership roles in an era defined by digital advancements (Warner, R. S et al., 2017). Furthermore, the leadership of the United Arab Emirates (UAE) has shown a comprehensive comprehension of the significance of gender diversity within leadership positions, especially within technology-oriented industries. This is substantiated by the selection of women for crucial technology-related posts in both governmental and private sector entities.

There are ongoing challenges that continue to exist. The rapid speed of technical advancements has the potential to surpass the rate at which leadership skills are developed. Additionally, the process of incorporating digital solutions into current infrastructures may provide intricate challenges. Furthermore, the task of reconciling the fast rate of technological advancements with the need for adopting sustainable approaches is a persistent challenge for those in positions of authority (Azapagic, A. 2003).

The significance and intricacy of leadership capabilities in fostering sustainable digital transformation in the United Arab Emirates cannot be overstated. The direction and success of the UAE's digital transformation endeavors are likely to be contingent upon the capacity of its leaders to effectively manage the concurrent requirements of rapid technical progress and sustainable growth (Chatterjee et al., 2022). Therefore, the United Arab Emirates (UAE) needs to continuously invest in leadership development, specifically emphasizing sustainability, in order to successfully attain its ambitious goals for digital transformation.

Leaders in the United Arab Emirates (UAE) face a diverse range of problems and possibilities as they strive to achieve sustainable digital transformation. The biggest issue posed by the fast rate of technology development is the need for leaders to constantly adapt and enhance their capabilities in order to remain current (Almarzooqi, A. 2019). The incorporation of emerging technology into pre-existing systems introduces additional complexities, hence requiring a comprehensive comprehension of both the novel and established components. The issue of cybersecurity has gained significant importance, necessitating policymakers to prioritize the safeguarding of digital infrastructure. Moreover, the cultural transition towards prioritizing digital platforms as a primary mentality may encounter opposition, necessitating leaders who have expertise in change management and effective communication.

These problems are accompanied by noteworthy possibilities. The abundance of data accessible via digital channels has the potential to enable leaders to make choices that are more informed and strategically sound. Additionally, there exists the possibility to foster innovation, therefore establishing a competitive advantage and accessing novel avenues for

wealth creation (Li et al., 2018). The phenomenon of digital transformation presents an opportunity for organizational leaders to allocate resources towards the cultivation of human capital, therefore empowering their workforce with the necessary proficiencies to thrive within the context of a digitalized economic landscape. Furthermore, the use of digitization in service provision has the potential to significantly improve operational effectiveness and boost the level of client contentment. These developments play a crucial role in facilitating the UAE's overarching objectives of achieving economic diversification, hence reducing reliance on oil and transitioning towards a sustainable economy driven by knowledge-based industries (Alketbi, M. S. A. H. 2023).

Successful navigation of this complex environment requires leaders to exhibit a comprehensive range of abilities, including strategic foresight, flexibility, proficiency in technology, and a steadfast dedication to ethical and sustainable principles (Cheyne, G. 2021). The cultivation of leadership attributes is of paramount importance for the United Arab Emirates (UAE) in order to proficiently use the possibilities presented by digital transformation and attain its ambitious objectives for a sustainable future.

The main objective of the research conducted on "Evaluating the Significance of Leadership Competencies in Ensuring Sustainable Digital Transformation in the United Arab Emirates" is to conduct a thorough analysis of the particular leadership abilities and proficiencies that play a crucial role in effectively guiding and maintaining digital transformation endeavors within the unique economic and cultural landscape of the UAE. The objective of this study is to examine the impact of these abilities on the effective incorporation of digital technologies, with a specific focus on their alignment with the sustainability objectives and Vision 2021 of the

nation. Moreover, the present research aims to comprehend the disparity between existing leadership methodologies and the requirements of a swiftly progressing digital economy. It puts forward practical observations to cultivate leaders who possess the capability to adeptly traverse the intricacies of digital transformation. This research will provide a valuable contribution to the existing body of knowledge on digital leadership, therefore providing insights that may drive the development of policies and educational programs aimed at nurturing leaders who possess the necessary skills to propel the UAE toward its ambitious digital future.

Literature Review and Hypothesis Development

The current studies concerning leadership competencies in sustainable digital transformation, particularly in the context of the United Arab Emirates (UAE), identify and explicate key themes and competencies that are deemed indispensable for attaining positive results. The strategy for digital transformation that the United Arab Emirates (UAE) has developed is especially significant since it demonstrates the government's unwavering commitment to integrating digital components into its overall objectives as a government (Al-Suwaidi, J. S. (2018). Within the context of this specific environment, the promotion of digital transformation entrepreneurship is one of the competencies that are required of leaders. This comprises the construction of businesses or the expansion of existing ones that emphasize digital transformation as a main route for the production of continuous value.

An additional breakdown of skills into two independent dimensions is provided by the digital government maturity model of the United Arab Emirates (UAE), which gives a more precise analysis of talents. The first

component places an emphasis on leadership and policy, which includes aspects such as governance, strategy, and legal issues. Technical accelerators are the subject of the second dimension, which encompasses a variety of domains including technology, cybersecurity, and new trends (Al-Najjar et al., 2017). Through the use of a complete literature analysis, the current research performs an in-depth investigation of the connection that exists between digital leadership and performance. The analysis indicates five primary themes that emerge from the current body of research.

Furthermore, leadership is often considered to be the most important behavioural quality for project managers, as well as an essential facilitator for the process of digital transformation. Several studies have shown that the deployment of digital leadership has a positive influence on the attitudes of employees toward organizational change, which ultimately results in a decrease in the amount of cynicism that employees have about these changes (Cortellazzo et al., 2019). This body of work emphasizes the need of leaders possessing not just technical capabilities but also behavioural and strategic attributes in order to successfully manage the difficulties of sustainable digital transformation in the rapidly changing environment of the United Arab Emirates.

Based on the research results, CEOs within the United Arab Emirates (UAE) need to demonstrate exceptional proficiency across a diverse range of talents concurrently, in order to effectively accomplish a sustainable digital transformation (Almarzooqi, A. 2019). This involves not only the ability to navigate the intricate network of regulatory and legal frameworks but also includes the capacity to proactively engage in technological innovation and cybersecurity. In the context of the digital world, effective leadership extends beyond basic managerial skills. In order to facilitate

innovation and generate value inside a business, it is essential to possess a thorough understanding of digital information and effectively use that knowledge.

There is a consensus among scholars that leadership plays a pivotal role in facilitating the process of digital transformation. This agreement emphasizes the importance of behavioural competencies that are in line with project management and organizational transformation. This assertion is substantiated by research that recognizes digital leadership as a crucial element in sustaining performance, wherein effective leadership styles exert influence on the degrees of success attained via digital (Ahmad & Hussain et al., 2023). The analysis of empirical evidence demonstrates that digital leadership plays a crucial role in transforming employees' skepticism into optimism, hence facilitating the establishment of a conducive environment for the acceptance of digital advancements.

Therefore, the literature review provides a comprehensive overview that highlights how leadership in the context of the United Arab Emirates' digital transformation encompasses more than just strategic vision and policy formulation (Al-Khouri, A. M. 2012). It also involves the crucial aspects of motivating and guiding teams in navigating the challenges and opportunities presented by digital technology. The need to use this comprehensive approach is crucial to ensure that the digital transformation endeavors pursued by the United Arab Emirates are not merely technologically proficient, but also enduring and congruent with the broader economic and social goals of the UAE.

Table 1: Literature review

Author(s)	Year	Objectives	Findings
Lakshmi , Patel & Kumar	2023	To evaluate the impact of leadership competencies on innovation in UAE's IT sector	Found that technical expertise, alongside strategic thinking, significantly influenced innovation outcomes.
Ahmad & Hussain	2023	To explore how leadership competencies affect employee engagement during digital transitions.	Competent leaders could maintain high levels of employee engagement during digital shifts.
Qasim, & Shuhaiber	2023	To identify the digital leadership competencies necessary for the UAE's sustainable energy sector.	Highlighted the importance of forward-thinking and environmentally conscious leadership in the sector's digital transformation.
Al-Najjar & Abdullah	2017	To explore the influence of governmental leadership on the digital economy in the UAE.	Governmental leadership with a clear digital agenda was found to positively influence the digital economy's growth.

Singh & Al-Mansoori	2000	To determine the role of cross-cultural leadership in the digital transformation of multinational companies in the UAE.	Cross-cultural leadership competencies were essential for managing diverse teams in digital transformation projects.
Al-Rubaie & Al-Jadaan	2021	To assess the impact of leadership on cybersecurity measures in the digital transformation of UAE banks.	Found that leadership plays a pivotal role in implementing effective cybersecurity measures during digital transformation.
Sandhu	2021	To understand the competencies required for leaders in the UAE's healthcare digital transformation.	Emphasized the need for competencies in change management and digital literacy among healthcare leaders.

The Theory of Reasoned Action (TRA) is a behavioral framework that aims to explain the connection between attitudes and behaviors in human actions. The hypothesis, proposed by Martin Fishbein and Icek Ajzen in 1975, asserts that an individual's desire to partake in a certain action is the key determinant of whether they will really carry out that behavior. According to the Theory of Reasoned Action (TRA), intention is determined by two factors: the individual's attitude towards the action (their evaluation of the conduct as either good or bad) and subjective norms (the perceived social pressure to either engage in or abstain from the behavior). The theory

postulates that humans are rational agents that use accessible knowledge to carefully consider the outcomes of their actions before choosing whether to participate or abstain from a certain activity. The Theory of Reasoned Action (TRA) has found extensive application across many domains such as marketing, healthcare, and environmental behavior. Its primary purpose is to forecast and comprehend the impact of views on human behaviours.

Attitudes towards the behaviour of digital transformation

The behavior of digital transformation can produce diverse and intricate attitudes, which are indicative of the many advantages and difficulties that are linked to this significant shift. Attitudes, in general, refer to the emotions and inclinations that influence the acceptance of digital technologies and the modification of conventional operating procedures. These mindsets might greatly impact the inclination to participate in digital transformation endeavors. Positive attitudes may arise from acknowledging the possibilities for increased efficiency, decreased costs, greater data analysis, enhanced customer experience, and innovation that digital transformation offers. Leaders and workers who see digital transformation as a chance to acquire a competitive advantage and update the firm are likely to endorse and propel the process. Negative attitudes may emerge as a result of concerns over the disturbance of existing work processes, possible employment reductions, the difficulty in adapting to new technology, and worries about the protection of data. These attitudes might result in resistance, which complicates the adoption of digital transformation plans (Schiuma, G et al., 2022). Comprehending these mindsets is essential, since the success of digital transformation endeavors often depends on the endorsement and active involvement of both top management and the wider staff. Organizations may allocate resources towards implementing change

management strategies and training programs to cultivate favourable attitudes and promote the integration of new digital practices.

H1: Attitudes towards the behaviour of digital transformation have a significant impact on behavioural intention to digital transformation.

Subjective Norms

Subjective norms, as they pertain to digital transformation, encompass the societal pressures or perceived expectations of pertinent groups or individuals that impact the decision-making process of an organization or an individual regarding their involvement in digital transformation (Pender, N. J., & Pender, A. R. 1986). For example, in the event that an industry exhibits a robust inclination towards digitalization and rival organizations are adjusting to emerging digital technologies, management may perceive a necessity to initiate digital transformation as a means of sustaining competitiveness. The expectation of consumers for expedited and customized services made possible by technology may generate normative pressure to embrace digital solutions. The intention to pursue digital transformation can be significantly influenced by subjective norms, given that organizations frequently conform their actions to the demands of these influential social agents in order to obtain legitimacy, approbation, or a competitive edge.

H2: Subjective norms has a significant impact on behavioural intention to digital transformation.

Digital Competence

Digital competence, under the framework of digital transformation, encompasses the essential abilities, understanding, and mindsets required

to proficiently use and integrate digital technology. Proficiency in utilizing digital technologies, comprehending data analytics, and using them in strategic decision-making is required. This competency also includes the capacity to adapt to emerging technologies, a strong understanding of cybersecurity, and proficiency in collaborating and communicating via digital platforms (Pettersson, F. 2018). Organizations place a high importance on cultivating these skills among their people to guarantee the effective incorporation of digital technology and comprehensive change across all aspects of their operations.

H3: Digital competence has a significant impact on behavioural intention toward digital transformation.

Behavioural Intention to Digital Transformation

Behavioural intention towards digital transformation is a metric that gauges the probability of people or organizations taking steps to include and use digital technology in their business operations. The attitudes about the advantages and disadvantages of digital transformation and the subjective norms, which refer to individuals' perceptions of others' expectations, have a significant impact on it (Tiong, W. N. 2020). For example, if firm executives are certain that digital transformation would result in substantial enhancements to their business and see a strong industry momentum towards digitalization, their inclination to adopt these changes is likely to be considerable. The desire to pursue digital transformation is a significant factor in models such as the Theory of Reasoned Action, since it predicts whether the actual behavior of pursuing digital transformation will take place.

H4: Behavioural intention to digital transformation has a significant

impact on actual behaviour toward digital transformation.

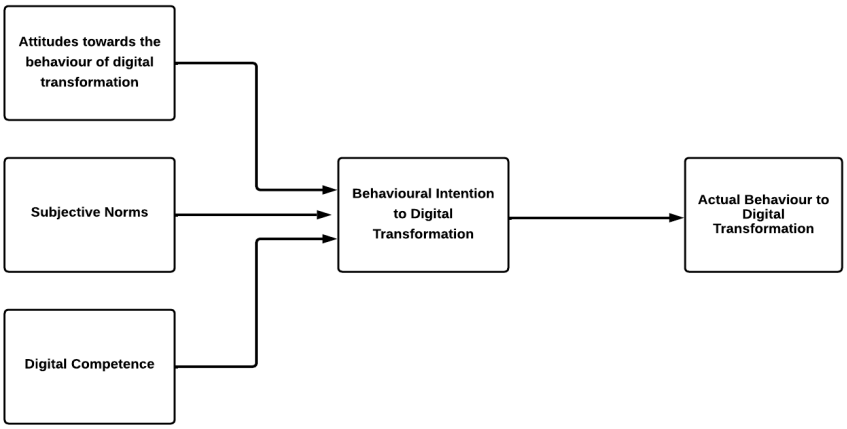

Figure 1: Conceptual Framework

Research Methodology

Both primary and secondary data sources were included in the research technique for this study, which aimed to evaluate the impact that leadership abilities play in the process of achieving sustainable digital transformation in the United Arab Emirates. To establish a complete academic foundation, the secondary data was gathered from a diverse collection of research papers, conference proceedings, digital publications, and a comprehensive review of the Scopus database. To collect primary data, we carried out a structured survey that was exactly prepared in four separate parts to fit with the aims of the research.

In the first part of the survey, respondents were asked to provide demographic information such as their age, gender, and yearly income. This was done to situate the results within the framework of the demographic

structure of the United Arab Emirates. The level of their leadership abilities and their propensity toward adopting environmentally responsible digital activities were evaluated using a Likert scale with five points.

The survey was originally circulated using Google Forms to an audience that was comprised of individuals within the researchers' professional networks on various platforms such as LinkedIn and Twitter. The objective of the survey was to collect between 420 and 450 answers from a random sample of UAE governance experts. On the other hand, the final study did not include fifty replies since the data were either insufficient or there were obvious biases. With the ultimate objective of determining the link between leadership abilities and the effective integration of digital transformation in governance, the remaining data were subjected to a strict purification procedure to guarantee that they were accurate and consistent.

The study was conducted with the specific goal of identifying the abilities that are most significant in the process of adopting and maintaining digital transformation activities within the public sector of the United Arab Emirates. Through this investigation, the relationships that exist between these abilities and the execution of digital strategies were investigated. The participants were promised that their replies would be kept secret and that they would remain anonymous. This was done to promote frank involvement and get honest responses. It was essential to have this precaution in place to improve response rates and guarantee the honesty of the input to achieve the goals of the research.

Analysis and Result

The evaluation of the proposed model was carried out by using the Partial Least Squares (PLS) method, and it was done in accordance with

the two-step technique that Anderson and Gerbing suggested. The Partial Least Squares assessments were made easier with the help of Smart PLS 4.0, which was the application of choice for the study.

Construct Reliability

Within the context of the United Arab Emirates (UAE) government, the present research investigated the convergent and discriminant validity of several leadership abilities in relation to the area of sustainable digital transformation. To determine whether convergent validity exists, several statistical indicators were used. These indicators included factor loadings, Cronbach's alpha, and Average Variance Extracted (AVE). Quantifying the magnitude of the variation that the constructs accounted for was made much easier with the use of the AVE approach. According to the findings, all the items had factor loadings that were more than the threshold of 0.70, which indicates that the items have strong convergent validity. This criterion is in accordance with the benchmarks that were proposed by Hair et al. (2011). To evaluate the internal consistency of the scales, Cronbach's alpha was used. The results showed that all the constructs had values that were more than 0.70, which is evidence of a high level of internal consistency and is consistent with the findings of (Afthanorhan, W.M.A.B.W., 2013).

In addition, composite reliability tests were carried out to validate the consistency of the constructs. All the constructs successfully exceeded the 0.70 threshold that was established by Carmines and Zeller (1979), so demonstrating their dependability. To gain a more in-depth comprehension of the degree to which the latent constructs accurately matched the observed data, the Average Variance Extracted (AVE) was calculated. With AVE values ranging between 0.86 to 0.94, as illustrated in Table 1, the study

demonstrated not only strong convergent validity but also the reliability of the scales, confirming the constructs' efficacy in elucidating a significant portion of the variance in the role of leadership competencies in UAE's sustainable digital transformation initiatives.

Table 2: Construct reliability

	Cronbach's alpha	(rho_a)	(rho_c)	(AVE)
ATBDT	0.865	0.882	0.903	0.65
BIDT	0.833	0.836	0.889	0.667
IMOP	0.881	0.885	0.91	0.627
PBC	0.838	0.851	0.892	0.676
SN	0.838	0.84	0.885	0.607

Source: Author's Calculation

Construct reliability measures are shown in Table 2 Cronbach's alpha coefficients serve as indicators of the extent to which a measure exhibits internal consistency dependability. All constructs have alpha values that are above the threshold of 0.80, suggesting robust internal consistency dependability.

Rho_a and rho_c serve as alternate reliability measures, exhibiting consistently high values across all constructs, hence providing further support for the dependability of the measurement model. The AVE values indicate the extent to which each concept captures variation in relation to

measurement error. Although AVE (average variance extracted) values are deemed acceptable, there is a minor variation seen across different constructs.

To summarize, the findings shown in Table 1 indicate that the constructs exhibit a high level of internal consistency dependability. Additionally, other reliability measures provide further support for the reliability of these constructs. Furthermore, the average variance extracted (AVE) values suggest that there is sufficient evidence of convergent validity.

Discriminant validity

The discriminant validity of the research was confirmed by the investigation of the correlations between the constructs and the squared Average Variance Extracted (AVE) values that were associated with leadership abilities in sustainable digital transformation in the United Arab Emirates. In accordance with the criteria that were established by Fornell and Larcker (1981), it was determined that the square root of the AVE for each concept was higher than any inter-construct correlation, which is an indication of strong discriminant validity. The purpose of this methodological stage is to guarantee that the constructs that are being investigated are separated from one another and to assess different aspects of leadership skills.

The researchers calculated the square root of the AVE and juxtaposed these figures with the correlation matrix of the constructs. This method provides for a clear separation between the variables, which was done to further reinforce the uniqueness of the constructs. Table 2 of the primary study paper contains checks that may be used to validate these estimates. In addition, the study addressed the possibility of common method bias,

which is a possible issue in self-reported surveys. This was accomplished by using Harman's single-factor test, which was suggested by Harman (1976). A full-factorial PLS exploratory factor analysis was carried out on the dataset to determine whether or not there was a common approach bias present. Based on the findings of the study, factor loadings of more than fifty percent were significant. Particularly noteworthy is the fact that the primary component was responsible for just 27.46% of the variance, which indicates that the dataset is not considerably confounded by the typical method bias. The integrity of the results about the importance of leadership abilities in the digital transformation initiatives within the governance sector of the United Arab Emirates (UAE) has been confirmed because of this outcome, which agrees with the advice offered by Podsakoff et al. (2003) for empirical research.

Table 3: Discriminant Validity

	ATBDT	BIDT	IMOP	PBC	SN
ATBDT					
BIDT	0.756				
IMOP	0.747	0.951			
PBC	0.759	0.887	0.873		
SN	0.892	0.913	0.866	0.945	

Source: Author's Calculation

The discriminant validity is shown in Table 3. The diagonal elements (bold) of the matrix denote the square root of the Average Variance Extracted (AVE) for each construct, whilst the non-diagonal elements reflect the correlations between constructs. The diagonal values in the matrix suggest that each construct exhibits a higher degree of shared variance with its own indicators compared to other constructs, thereby providing evidence of discriminant validity.

In brief, the discriminant validity matrix provides confirmation that the constructs exhibit unique characteristics, hence bolstering the validity of the measurement model.

R square

The R-square (R2) value is an essential measure in the empirical evaluation of leadership competencies and their impact on sustainable digital transformation in the United Arab Emirates (UAE). It is an important indicator of the extent to which variations in digital transformation outcomes can be explained by changes in the identified leadership competencies. This value serves as an important indicator in the evaluation of leadership competencies. R2 is a statistical method that, according to Hyslop, et al. (2024), evaluates the amount of variance in the effectiveness of digital transformation that can be expected based on the qualities of the leadership. This is done by determining the amount of variation that can be predicted. The fact that the R2 value is higher indicates that the leadership skills that are being evaluated have a substantial influence on the effectiveness of the activities that are being carried out in the context of digital transformation.

On the other hand, the correlation coefficient provides insight on the kind and amount of a linear connection that exists between certain leadership

talents and the outcomes of digital transformation implementation. This is useful information for understanding the relationship between the two. When compared to values that are closer to the extremes, values that are closer to the extremes reflect larger negative or positive correlations, respectively. A number that is near zero indicates that there is no link between the two variables to be found. The value of this coefficient might vary anywhere from minus one to plus one. It was determined that an R2 value of at least 0.01 was satisfactory for the purposes of this investigation. The research presented here demonstrates that leadership skills have the capacity to account for at least one percent of the variance that was discovered in the outcomes of the digital transformation. On the other hand, it is of the utmost importance to consider the correlation coefficient in addition to the R2 value to acquire a more nuanced comprehension of the magnitude and the direction of the link that exists between leadership capabilities and the accomplishment of sustainable digital transformation in the United Arab Emirates. This is especially important to get a better understanding of the relationship between the two phenomena.

Table 4: R- Square

	R- square	**R- square adjusted**
BIDT	0.647	0.638
IMOP	0.672	0.67

Source: Author's Calculation

The R-squared and adapted R-squared coefficients associated with the BIDT construct are 0.647 and 0.638, correspondingly shown in Table 4. These values suggest that the model accounts for about 64.7% of the variability seen in BIDT.

Regarding the IMOP construct, it is seen that the R-squared and modified R-squared coefficients exhibit values of 0.672 and 0.670, respectively. These findings indicate that the model accounts for about 67.2% of the variability in the IMOP construct.

The numbers serve as indicators of the model's goodness of fit for each construct, with larger values signifying a better fit.

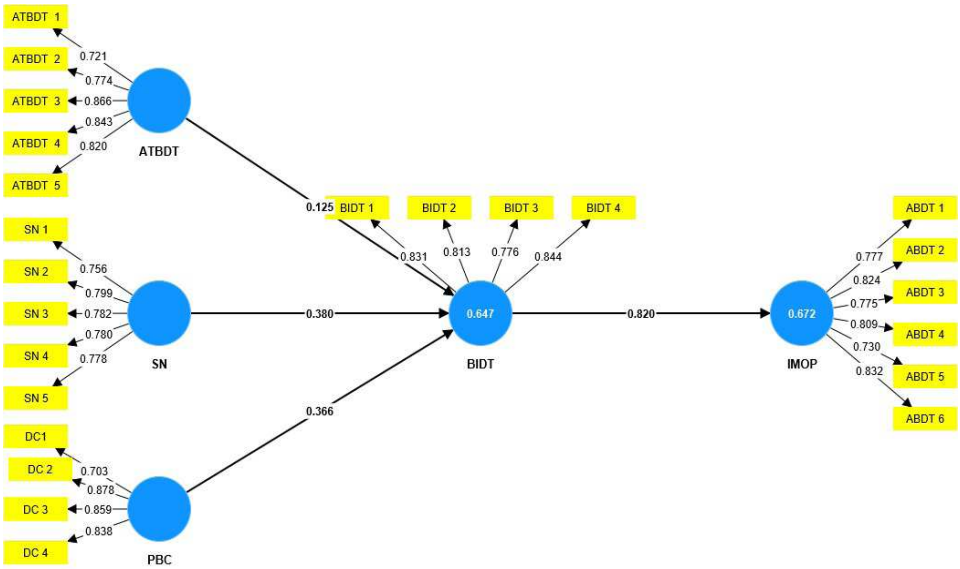

Figure 2: Structural path Analysis for the research model

Figure 2 shows a structural model from Structural Equation Modeling research. SEM assesses causal links using direct and indirect effects. Latent

variables are generated from measured variables, rectangles or arrows pointing to hidden variables.

Four latent variables—ATBDT, SN, PBC, and IMOP—should affect BIDT. Path coefficients for these latent variables are 0.125, 0.380, 0.366, and 0.820. Each predictor variable's BIDT connection size and orientation are shown by the coefficients. Numbers given to arrows connecting latent variables to measurable variables are factor loadings. The factor loadings demonstrate how well each variable fits the latent construct.

Many research considers factor loadings and route coefficients over 0.5 significant. This shows that the observable variables are reliable markers of their latent constructs and that their links are strong enough to incorporate in the model.

ATBDT and IMOP are statistically related by a 0.672 coefficient double-headed arrow. The SEM is well-structured, with several components connected to explain the key latent variable, BIDT.

Limitation

When analyzing the limits of analytical research that investigates the impact of leadership competencies in sustainable digital transformation in the United Arab Emirates (UAE), it is essential to identify the restrictions that may have affected the conclusions of the study or its capacity to be generalized. The following is an example of how one may precisely define these limitations:

- It is possible that the insights presented in this study are not representative of the entire complexity of leadership abilities in the different government departments since they are mostly

derived from qualitative evaluations and secondary data that is readily accessible. The results may also be time-sensitive, with the possibility of becoming obsolete when new leadership models and technologies come into being. This is because the rate of digital innovation is accelerating very quickly.

- Furthermore, the cultural singularity of the United Arab Emirates (UAE), particularly in its form of government and social norms, may restrict the application of the findings of the research to other contextual settings. It is possible that the leadership skills that are considered essential in the United Arab Emirates could not have the same level of influence or might take on a different form in other nations that have distinct political and cultural settings.
- There is also the possibility that this research was delayed by restrictions on the accessibility of data. This is due to the fact that some digital transformation activities and the results of such initiatives inside government sectors may not be shared with the public for reasons of confidentiality or safety. Because of this, the level of analysis that can be carried out on the association between certain leadership acts and the results of digital transformation is limited.

To conclude, the emphasis placed on leadership abilities may cause other major aspects, like as economic resources, international partnerships, and regulatory contexts, which also play a vital role in digital transformation programs, to be overlooked. In the future, research should try to encompass a more comprehensive collection of data. This could include primary research conducted via interviews and surveys with key stakeholders, as

well as a comparison study with the digital transformation initiatives of other countries, with the goal of enhancing the knowledge of leadership abilities in this category.

Future Research

Future research on the role of leadership competencies in sustainable digital transformation in the UAE can expand in several promising directions. One area of interest could be a comparative analysis between the UAE and other regions, allowing for a deeper understanding of how socio-economic and cultural differences influence leadership effectiveness in digital transformation. Longitudinal studies are needed to track the long-term impact of leadership competencies on digital transformation initiatives, providing insights into sustainability and adaptation over time. Additionally, exploring the role of emerging technologies, such as artificial intelligence and blockchain, in shaping leadership requirements and strategies would offer valuable perspectives on future trends. Research could also delve into sector-specific analyses to identify unique leadership challenges and opportunities within different industries. Furthermore, incorporating a broader range of organizational sizes, including small and medium enterprises, would enhance the generalizability of findings. Examining the influence of global crises, such as pandemics or economic downturns, on digital leadership and transformation strategies could provide crucial insights into resilience and adaptability. Lastly, integrating multidisciplinary approaches, combining insights from fields such as psychology, sociology, and economics, would enrich the understanding of the complex interplay between leadership competencies and sustainable digital transformation.

Conclusion

In conclusion, the purpose of this research is to evaluate the influence that leadership skills have on the process of supporting sustainable digital transformation within the executive branch of the government of the United Arab Emirates (UAE). Furthermore, the findings underscore the need to have a diverse range of skills among leaders. These skills include, for instance, the ability to be flexible, strategic vision, and competent in digital technology. These skills have shown to be indispensable in the successful navigation and management of digital transformation in the public sector. They guarantee that projects are not only carried out in an efficient manner but are also resilient and able to accommodate any future technological advancements without compromising their integrity. Because the leadership of the United Arab Emirates has maintained its dedication to these qualities, it has been able to develop a model of digital governance that is not just robust but also creative and citizen centred. It is possible that other nations who are interested in achieving the full potential of digital transformation in governance may adopt this model as a roadmap to finish their own transformation. At the end of the day, the findings of the study give validity to the concept that leadership skills are the cornerstone of a sustainable digital transformation. This will have a huge influence on the future of governance in the digital age.

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تقييم دور الكفاءات القيادية في التحول الرقمي المستدام في دولة الإمارات العربية المتحدة

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ملخص البحث:

الهدف من هذه الورقة البحثية هو تقديم فحص شامل لتأثير الكفاءات القيادية على جدوى مبادرات التحول الرقمي على المدى الطويل في دولة الإمارات العربية المتحدة. وبالاستناد إلى نهج متعدد التخصصات يتقاطع مع نظرية القيادة والابتكار الرقمي، تستكشف الدراسة كيف أسهمت المجموعة الفريدة من المهارات القيادية في سياق الحوكمة في دولة الإمارات العربية المتحدة في تسهيل التحول الرقمي الشامل والمستدام. من خلال إجراء مراجعة شاملة للاوراق البحثية وتحليل الأدلة التجريبية، تسلط هذه الدراسة الضوء على المهارات والقدرات الأساسية، بما في ذلك الرؤية الإستراتيجية والمرونة ومحو الأمية الرقمية والتفاني في التحسين المستمر، والتي تؤدي دورًا حاسمًا في تعزيز تطوير مجتمع رقمي مستدام. النظام البيئي. وتشير النتائج إلى أن هذه المهارات ليست نهائية فقط لتحفيز التحول الرقمي ولكن أيضًا للحفاظ على التقدم في ظل وجود عقبات تكنولوجية متغيرة. وخلصت الدراسة إلى أن نجاح دولة الإمارات في تحقيق التحول الرقمي المستدام يرتبط بشكل رئيس بتفاعل قيادتها الاستباقي مع الاتجاهات الرقمية، والاستثمار في رأس المال البشري، وبناء البنى التحتية الرقمية القوية

تسهم هذه الدراسة في فهم الدور المهم للقيادة في ضمان استدامة جهود التحول الرقمي في سياق الحوكمة الوطنية

الكلمات الدالة: الكفاءات القيادية، التحول الرقمي، الاستدامة، الحوكمة في دولة الإمارات، رأس المال البشري

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