



The Impact of Leadership Practices on the Adoption of Digital Transformation: The Moderating Role of Organizational Culture in Jordanian Manufacturing Sector

Wiam Khalayleh¹, Siti Rohaida¹, Suhaib Mohammed Al-Khazaleh^{2*}

¹School of Management, Universiti Sains Malaysia, Malaysia, ²Amman Arab University, Jordan. *Email: s.alkhazaleh@aau.edu.jo

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ABSTRACT

This study investigates how organizational culture influences the relationship between leadership practices and digital transformation, as well as the impact of digital leadership practices on the adoption of digital transformation inside organizations. Using a quantitative approach, data from numerous firms reveal that achieving digital transformation necessitates effective leadership, with specific leadership components such as communication, strategic planning, digital leadership, and continuous improvement being crucial. The findings show that, depending on how effectively organizational culture fits with leadership initiatives, it can either facilitate or delay digital change. The study underlines the importance of purposeful investments in leadership development and cultural alignment for successful digital disruption management. While emphasizing the importance of cultivating an innovative culture and giving leaders with practical insights.

Keywords: Leadership Practices, Digital Transformation, Organizational Culture, Jordanian Manufacturing Sector

JEL Classifications: L6, M14

1. INTRODUCTION

The globe witnessed a major change in all aspects of life, especially at the beginning of the last decade, and its effects were clearly reflected on administrative practices and the nature of organizational relations, especially in light of rapid technical developments, and roles and problems that transcended the borders of the countries in which organizations of all kinds and activities live (Errida and Lotfi, 2021; Khaw et al., 2023). The need to predict the future of organizations emerged as part of a local system within a more comprehensive global system that affects the activities, plans and strategies of those organizations, and the fact that the uncertainty of the future necessitates revealing its basic features and searching for appropriate scientific methods through which the future can be explored and prepared to face the current of developments and changes (Grant and Phene, 2022; Settembre-Blundo et al., 2021).

Notably, in the dynamic changing business environment, organizations pay more attention to developing and improving management practices; the ability to identify what is changing in the environment and to choose an appropriate management approach to respond to these changes is an essential component of business success. Leadership practices gained attention recently (Grant and Phene, 2022; Khaw et al., 2023). The cases mentioned in the previous literature show that many organizations have achieved success by applying the aspects of leadership practices, and also referred to it as a source of corporate competitive advantage (Madanat and Khasawneh, 2017; Wesly et al., 2021).

Although many industries, including banking, retail, and education already adopted digital transformation, this transformation has the potential to revolutionize a variety of other industries, including manufacturing sector in Jordan. Several cases among manufacturing sector are uniquely positioned to benefit from digital transformation

in this industry because they not only use decision support software but also more advanced image processing innovations (Latif et al., 2017; Madhav and Tyagi, 2022).

Digital transformation is expanding into the field of manufacturing sector and can significantly impact on all facets of primary care. Primary care providers will be better equipped to recognize patients who need extra attention and deliver individualized regimens for each individual with the aid of digital-enabled computer programs. Digital shift can be used to take notes, evaluate business, and upload necessary data into electronic record systems. These programs will gather and examine business information and give concerns to managers (Carvalho et al., 2020; Madhav and Tyagi, 2022; Malik et al., 2019; Ponsignon et al., 2019; Robertsons and Lapiņa, 2021).

Hence, it is essential to highlight that the Jordanian manufacturing sector stands at a critical juncture where the integration of leadership practices and the adoption of digital transformation technologies have become imperative for sustaining competitive advantage and ensuring long-term viability (Alzbaidi, 2020; Hijazin, 2024). However, despite the recognized benefits of both leadership practices and digital transformation, the extent to which these initiatives are effectively implemented and their impact on organizational performance remain unclear, particularly in the context of Jordanian manufacturing firms (Alzubi and Akkerman, 2022; Jaradat et al., 2023). Moreover, the role of organizational culture, as a potential moderator, in influencing the relationship between leadership practices, digital transformation adoption, and organizational outcomes has not been extensively explored. With a focus on the moderating role of organizational culture, this study aims to close this gap by analysing the effects of leadership practices (digital leadership, strategic planning, communication, cost, training, and continuous improvement) on the adoption of digital transformation in the Jordanian manufacturing sector. The objective of this study is to offer significant perspectives to managers, policymakers, and stakeholders on how to improve organizational effectiveness, innovation, and competitiveness in the Jordanian manufacturing sector by clarifying the ways in which these aspects interact.

2. LITERATURE REVIEW

To stay competitive in a global market that is changing quickly, the Jordanian manufacturing sector has been under increasing pressure in recent years to adopt digital transformation projects (Agolla, 2018; Alnsour et al., 2023; Nureen et al., 2023). Effective leadership practices are essential for the successful implementation of digital transformation because they shape organizational strategy, encourage innovation, and propel change (Alos-Simo et al., 2017; Cichosz et al., 2020). This review of the literature investigates the connection between digital transformation adoption in the Jordanian manufacturing sector and leadership practices, with a focus on the moderating role of organizational culture.

2.1. Leadership Practices and Digital Transformation

Successful digital transformation initiatives have been found to be significantly influenced by digital leadership, which is

defined by visionary leadership, technological know-how, and the capacity to inspire and encourage teams towards digital innovation (George et al., 2018). A road map for negotiating the challenges of digital transformation is provided by strategic planning, which entails developing and implementing digital strategies in line with organizational objectives (Davies et al., 2019). Good communication channels help stakeholders buy into the goals of the digital transformation, spread the word about those goals, and promote a transparent and collaborative culture (Nambisan et al., 2017). Furthermore, funding for digital training programs gives staff members the know-how and abilities to use digital tools wisely, promoting organizational adaptability and durability (Strohmeier, 2018). Initiatives for continuous improvement, like Lean principles and Agile methodology, let businesses adapt to shifting market conditions and continuously improve their digital capabilities (Bharadwaj et al., 2013).

2.2. Organizational Culture as a Moderator

Organizational culture is increasingly being hailed as a key selling point as businesses work to recruit and keep top talent. Employers are recommended to assess their cultures and, if necessary, make changes to them to make them more appealing to potential employees. This is not an easy thing to achieve, as we will detail below (Ahmed et al., 2020; Alos-Simo et al., 2017; Carmeli et al., 2013). Some crucial concerns must be addressed in order to decide whether culture transformation is “worth the effort.” Does culture have an impact on employees’ willingness to stay on staff at an organization? is the first and most fundamental question. Second, is there a “better” culture, or are many cultures more likely to appeal to various types of people? Do some cultures make it easier to keep top achievers on staff than others? a succinct summary of the results of empirical research are offered in an effort to respond to these questions. Some researchers opted to use a comprehensive strategy and to consider how an organization’s “whole” culture affects its capacity to retain people (Carmeli et al., 2013).

Numerous studies using various variables, such as organizational commitment and its effect on digital transformation, performance, and engagement, have been conducted to explain the work culture. Alos-Simo et al. (2017) claim that the working environment including culture is the most important factor for this regard. Since employees in the service sector interact with clients or consumers directly, the differences between the work environments in the manufacturing and service industries are rather noteworthy. Depending on the company’s or profession’s nature, customer interaction may increase or diminish accordingly. When it comes to interactions between employees and clients, the focus shifts from the physical to the psychological. The setting for psychological work comprises freedom of choice, stress, encouragement, and workload (Ahmed et al., 2020; Alos-Simo et al., 2017; Carmeli et al., 2013).

Thus, leadership practices have a significant impact on how the Jordanian manufacturing sector adopts digital transformation. Effective digital transformation programmes necessitate digital leadership, strategic planning, communication, cost management, training, and continuous improvement. However, the impact of these leadership styles depends on the dominant organizational

culture, which modifies the effectiveness of initiatives aimed at digital transformation. By comprehending the relationship between organizational culture and leadership practices, organizations can develop comprehensive plans that will increase digital innovation and competitiveness in Jordan’s manufacturing sector.

3. METHODOLOGY

An investigation into the influence of leadership practices on the implementation of digital transformation in the Jordanian manufacturing sector is carried out through the utilisation of a quantitative research design in this study (Figure 1). Additionally, the moderating function of organizational culture is taken into consideration. The study utilizes a random sampling technique to select participants from a diverse range of Jordanian manufacturing firms. The sample will include middle managers involved in leadership practices’ implementation and digital transformation initiatives within their respective organizations. Data are collected through a questionnaire survey. The questionnaire items are related to leadership practices, digital transformation adoption, and organizational culture. Surveys are distributed electronically to participants, allowing for a larger sample size and broader representation.

3.1. Hypotheses Development

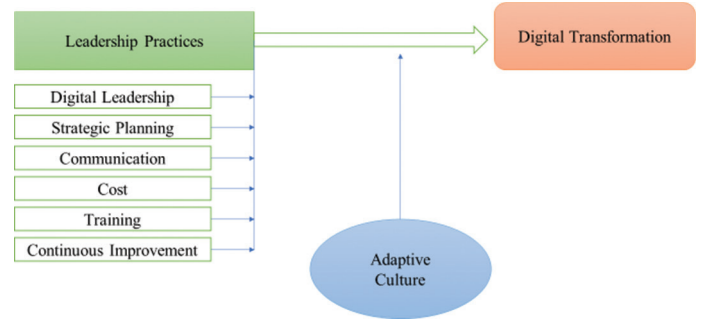
Effective leadership practices positively influence the adoption of digital transformation in the Jordanian manufacturing sector. Specifically, we hypothesize that leadership styles emphasizing vision, innovation, and change management will correlate with higher levels of digital transformation adoption. Avolio and Gardner (2005) suggests that transformational leadership, characterized by vision and inspiration, fosters organizational change and innovation. Additionally, Bass and Riggio (2006) indicate that leadership behaviors promoting adaptation and technological advancement correlate with enhanced organizational performance in digital contexts. Based on this the following hypothesis is developed:

H₁: Leadership practices (digital leadership, strategic planning, communication, cost, training, continuous improvement) significantly impacts on the adoption of digital transformation in the Jordanian manufacturing sector.

The presence of digitally savvy leaders within manufacturing firms in Jordan positively impacts the adoption of digital transformation initiatives. It is projected that leaders will have a major impact on their organizations’ digital transformation initiatives if they exhibit competence with digital technology, strategic vision, and good decision-making in digital contexts (Hanelt, et al., 2018). According to Kohli and Grover (2008), executives who adopt technology-driven strategies and demonstrate digital competency are crucial in determining how their organizations react to digital disruptions. Marler and Fisher (2013) also stress the significance of digital leadership in promoting creativity and flexibility in response to technology advancements. As a result, the following theory is established:

H_{1.1}: There is a significant relationship between digital leadership and the adoption of digital transformation

Figure 1: Study Model (Source: Developed by the researchers based on the following studies: Alos-Simo, et al., 2017; Bass & Riggio, 2006; Brynjolfsson & McAfee, 2009; Leonardi, 2014)



Comprehensive strategic planning increases the likelihood of digital transformation initiatives being effectively adopted by manufacturing organizations in Jordan. The proposition suggests that the execution of digital transformation can be made more seamless by using strategic planning procedures that prioritise resource allocation, risk management, and alignment of digital projects with organizational goals. The need of strategic alignment in utilising digital technology for competitive advantage is emphasized by Qi et al. (2024). Furthermore, Brynjolfsson and McAfee (2009) emphasize how important strategic planning is to coordinating initiatives for digital transformation and making sure they complement larger organizational plans.

H_{1.2}: There is a significant relationship between strategic planning and the adoption of digital transformation

The implementation of digital transformation in Jordanian manufacturing firms is positively impacted by efficient communication channels and procedures. It is suggested that open and effective communication about the purpose, objectives, and advantages of digital transformation projects encourages employee collaboration, buy-in, and change readiness. According to Davenport et al. (2010), effective digital transformation requires knowledge sharing and organizational learning, which are facilitated by open communication channels. Leonardi (2014) also highlights how communication networks influence how organizations react to opportunities and problems presented by the digital age. In light of this, a hypothesis is proposed that:

H_{1.3}: There is a significant relationship between communication significantly and the adoption of digital transformation

The adoption of digital transformation initiatives within the Jordanian manufacturing sector is influenced substantially by the perceived cost-effectiveness and return on investment of these projects. It is projected that companies that perceive digital transformation as a strategic investment with advantageous cost-benefit ratios would exhibit increased adoption rates. According to Halim et al. (2023), businesses that use digital technology to achieve higher performance frequently view these tools as strategic assets rather than just expenses. Furthermore, when making adoption decisions, Nickols (2006) emphasizes the significance of determining the long-term sustainability and economic viability

of investments in digital transformation. As a result, the following hypothesis is established:

H_{1.4}: There is a significant relationship between cost significantly and the adoption of digital transformation

The manufacturing industry in Jordan is more likely to successfully adopt digital transformation projects if personnel receive enough training and upskilling programmes. It is suggested that companies will have easier transitions to digital operations if they invest in thorough training programmes to increase personnel competency and digital literacy. According to Ivaldi et al. (2022), focused training initiatives might lessen reluctance to technology advancement and hasten organizational learning in digital settings. Additionally, Bharadwaj et al. (2013) stress the benefits of staff development and training for digital readiness and performance results. As a result, the following theory is established:

H_{1.5}: There is a significant relationship between training and the adoption of digital transformation

The adoption and long-term success of digital transformation projects in Jordanian manufacturing enterprises are favorably correlated with the cultivation of a continuous improvement culture. It is hypothesized that firms embracing concepts of continuous improvement, such as agile techniques and lean practices, display more adaptability and resilience in the face of digital upheavals. Organizations that cultivate cultures of continuous improvement are more likely to be innovative and flexible, which are critical qualities for a successful digital transition (Warner and Wäger, 2019). Furthermore, Westerman et al. (2011) emphasize how critical agile concepts enhancing continuous improvement are to fostering customer-centric, iterative approaches to digital innovation and change. Therefore, a hypothesis is proposed that:

H_{1.6}: There is a significant relationship between continuous improvement and the adoption of digital transformation

It is also crucial to emphasize that organizational culture has a moderating role in the adoption of digital transformation in the Jordanian manufacturing sector, which is heavily influenced by leadership practices. It is postulated that, among Jordanian manufacturing enterprises, the influence of leadership styles on the adoption of digital transformation may differ based on the dominant organizational culture (Alos-Simo et al., 2017). In particular, it is expected that organizations with a culture that values experimentation, risk-taking, and openness to change will be more responsive to the influence of leadership styles that prioritise innovation, vision, and change management on the adoption of digital transformation. On the other hand, the impact of leadership techniques on the adoption of digital transformation may be lessened in companies with more established, hierarchical cultures that are resistant to change. According to this hypothesis, organizational culture modifies the relationship between leadership practices and the uptake of digital transformation initiatives. This means that successful digital transformation initiatives in the Jordanian manufacturing sector depend on leadership approaches that are in line with the cultural context.

H₂: There is a statistically significant role of organizational culture as a moderator on the relationship between leadership practices and digital transformation adoption

4. ANALYSIS AND DISCUSSION

The demographic details of the respondents, including gender, age, experience, and qualifications, are displayed in the Table 1. The results show that men are 55.7% of the sample, or the majority of responders, while women made up 44.3%. With respect to age distribution, the group of respondents who were 41–50 years old accounted for the greatest percentage of the sample (43.4%), with individuals over 50 years old coming in second at 39.3%. When it came to experience, the group with the largest frequency of respondents—those with 16–20 years—was made up of 38.1% of those with this age range. Those with 11–15 years and those with 5–10 years made up 20.1% and 18.0% of the sample, respectively. In addition, the vast majority of respondents (75.8% of the sample) had bachelor’s degrees, followed by postgraduate degrees (16.0%), diplomas (6.1%), and others with only a school certificate (2.0%). These results shed light on the sample population’s demographic information, which is helpful in comprehending the viewpoints and traits of those who took part in the study on digital transformation adoption and leadership practices in the Jordanian manufacturing sector.

The findings of the reliability test that was done for the study’s variables are shown in Table 2. Higher values indicate more

Table 1: Demographic information of the respondents

Categories	Frequency	Percent
Gender		
Male	136	55.7
Female	108	44.3
Age		
Below 30 years old	12	4.9
30–40 years old	30	12.3
41–50 years old	106	43.4
More than 50 years old	96	39.3
Experience		
Below 5 years	24	9.8
5–10 years	44	18.0
11–15 years	49	20.1
16–20 years	93	38.1
More than 20 years	34	13.9
Qualifications		
School	5	2.0
Diploma	15	6.1
Bachelor	185	75.8
Postgraduate	39	16.0

Table 2: Reliability test

Variables	Cronbach Alpha	Items
Digital Leadership	0.894	7
Strategic Planning	0.725	6
Communication	0.697	6
Cost	0.713	6
Training	0.719	6
Continuous Improvement	0.787	6
Digital Transformation	0.849	10
Organizational Culture	0.904	9

reliability. The Cronbach's alpha coefficients show how reliable each variable is internally consistent. With a Cronbach's alpha coefficient of 0.894, digital leadership demonstrated good internal consistency among the seven questions used to measure this variable.

Cronbach's alpha coefficients for Strategic Planning, Communication, Cost, and Training were .725, 0.697, 0.713, and 0.719, respectively, indicating acceptable levels of internal consistency reliability. These coefficients indicate a fair level of dependability for the measurement scales, despite being slightly below ideal. Furthermore, Cronbach's alpha value for the variable "Digital Transformation" was 0.849, demonstrating good internal consistency dependability among its ten items. Additionally, with a Cronbach's alpha coefficient of 0.904 across its nine items, Organizational Culture showed the highest level of internal consistency reliability of any measure. The results of the reliability test indicate that the measurement scales utilised to evaluate the different study constructs show acceptable degrees of internal consistency, which strengthens the validity and robustness of the research findings about digital transformation adoption and leadership practices in the Jordanian manufacturing industry.

4.1. Inferential Analysis

The results of the regression analysis support Hypothesis H1 and offer insightful information on the relationship between digital transformation adoption and leadership practices in the Jordanian manufacturing sector. According to the regression model, there is a statistically significant positive relationship ($\beta = 0.454$, $P < 0.001$) between the adoption of digital transformation and leadership practices. In particular, there is a 0.454-unit rise in the adoption of digital transformation for every unit increase in leadership behaviors. This finding bolsters the hypothesis stating that effective leadership techniques have a beneficial impact on Jordanian manufacturing companies' adoption of digital transformation projects. These results are in line with earlier studies (Avolio and Gardner, 2005; Bass and Riggio, 2006) that show leadership philosophies that prioritise vision, innovation, and change management to foster organizational transformation and innovation. The significance of leadership in spearheading digital transformation initiatives is shown by the standardized coefficient (Beta) of 0.454, which also emphasizes the critical role that leaders play in managing technological disruptions and promoting organizational preparedness for digital change. The results of the study highlight the importance of leadership in determining the course of digital transformation projects in the Jordanian manufacturing sector. They also highlight the necessity for organizations to make investments in leadership development and foster a supportive leadership culture in order to support successful digital transformation initiatives.

The table presented seems to display the findings of a regression analysis involving the following dimensions of leadership practices (digital leadership, strategic planning, communication, cost, training, and continuous improvement) as the dependent variable and digital transformation as the independent variable. The coefficients in the table indicate the direction and strength of these relationships. Interestingly, there is a positive correlation

between digital leadership and digital transformation ($B = 0.077$, $Beta = 0.084$). This is consistent with other research (e.g., Avolio and Gardner, 2005; Bass and Riggio, 2006) that highlights the critical role that effective correlation plays in propelling successful digital projects. On the other hand, there is a negative correlation with strategic planning ($B = -0.069$, $Beta = -0.078$), which is somewhat surprising considering the traditional belief that strategic planning is essential to successful transformation. To fully comprehend this link and its significance for developing strategies in digital contexts, more research is necessary. This result is consistent with earlier research (Brynjolfsson and McAfee, 2009) that highlighted the significance of strategy alignment in utilising digital technology for competitive advantage.

The results show that communication has a significant influence ($B = 3.391$, $Beta = 2.145$), emphasizing how crucial it is to have excellent communication to build organizational knowledge and support for initiatives related to digital transformation. Furthermore, the correlation that exists between cost and digital transformation ($B = 0.182$, $Beta = 0.117$) is favourable, highlighting the importance of sufficient financial resources in achieving favourable transformation results. This result is in line with studies that highlight the contribution that communication makes to knowledge exchange and organizational learning in digital settings (Davenport et al., 2010; Leonardi, 2014).

It is unexpected that training had a negative influence ($B = -2.822$, $Beta = -1.836$), defying expectations that upskilling and training are necessary for being digitally ready. This result is consistent with studies showing that training programmes have a major influence on performance results and digital preparedness (Ivaldi et al., 2022; Bharadwaj et al., 2013).

Additionally, a positive correlation is seen for continuous improvement ($B = 0.234$, $Beta = 0.169$), highlighting the significance of organizational flexibility and agility enhancing continuous improvement in maintaining digital transformation initiatives. These results offer practitioners useful insights by pointing out critical elements that can help or impede successful digital transformation initiatives; nevertheless, more investigation and contextual analysis are required to confirm and completely comprehend these connections. More significantly, this result is consistent with studies that highlight the contribution of continuous improvement concepts to customer-centric, iterative approaches to digital innovation and transformation (Warner and Wäger, 2019; Westerman et al., 2014).

The moderating effect of organizational culture on the relationship between digital transformation and leadership practices. It is true that representing a crucial component is necessary to comprehend the dynamics of an effective digital transformation inside an organization. The impact of organizational culture on the efficacy of leadership approaches in propelling digital transformation projects can be significant. The significance of this relationship stems from the realisation that effective digital transformation cannot be achieved by leadership alone; rather, leadership approaches must complement and be supported by the dominant organizational culture. Innovation, taking calculated risks, and

teamwork are all necessary for navigating the challenges of digital transformation, and a robust and flexible organizational culture may magnify the effects of effective leadership. On the other hand, an incompatible or resistant culture can undermine leadership efforts, resulting in difficulties with implementation, opposition to change, and eventually, a limited degree of success in digital transformation initiatives. Therefore, for organizations hoping to foster environments supportive of digital innovation and sustainable transformation, it is imperative to comprehend how organizational culture moderates the relationship between leadership practices and acceptance of digital transformation. The aforementioned hypothesis highlights the necessity for organizations to deliberately match leadership behaviors with cultural norms and values in order to maximise the results of their digital transformation and guarantee sustained success in the quickly changing digital landscape of today.

Important insights into the ways in which organizational environments interact with leadership practices, organizational culture, and adoption of digital transformation are provided by the table's findings. First off, the leadership practices are positively and significantly coefficient as follows (B = 0.746, Beta = 0.447) emphasizing how important effective leadership is in advancing

digital transformation. This shows that an organization's capacity to successfully accept and implement digital projects is strongly influenced by effective leadership, which is typified by visionary guidance and proactive management of change. The significance of this effect is highlighted by the standardized coefficient (Beta = 0.447), which also highlights the role that leadership skills play in cultivating an innovative and adaptable culture that is essential for digital transformation.

However, organizational culture's negative and significant coefficient (B = -0.218, Beta = -0.143) indicates that it moderates this relationship. A negative coefficient indicates that some organizational cultural elements may limit or impede the ability of leadership practices to propel digital transformation. This result emphasizes how important organizational context is in determining how leadership initiatives turn out. A culture that is less receptive or adaptable may operate as a barrier to change, reducing the impact of leadership on the adoption of digital transformation.

These findings suggest that there is a need for careful alignment between leadership practices and the dominant organizational culture in order to achieve successful digital transformation. This alignment is due to the interaction between leadership practices and organizational culture. Strong leadership is necessary, but it needs to be supported by a culture that appreciates creativity, accepts changes, and is supportive of digital efforts. This realization emphasizes the significance of fostering both leadership competencies and cultural norms supportive of digital innovation, with substantial consequences for organizational strategy and development.

Therefore, the results presented in the table highlight how difficult it is to lead digital transformation in businesses. Effective leadership is insufficient on its own; an organization's culture that

Table 3: The relationship between leadership practices and the adoption of digital transformation

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
H1					
(Constant)	1.167	0.355		3.289	0.001
Leadership Practices	0.759	0.096	0.454	7.932	0.000

^aDependent Variable: Digital Transformation

Table 4: The relationship between the dimensions of leadership practices (digital leadership, strategic planning, communication, cost, training, continuous improvement) and the adoption of digital transformation

Model		Coefficients ^a			t	Sig.
		Unstandardized coefficients		Standardized coefficients		
		B	Std. Error	Beta		
H _{1,1}	Digital Leadership	0.077	0.037	0.084	2.101	0.037
H _{1,2}	Strategic Planning	-0.069	0.035	-0.078	-1.949	0.052
H _{1,3}	Communication	3.391	0.215	2.145	15.802	0.000
H _{1,4}	Cost	0.182	0.082	0.117	2.215	0.028
H _{1,5}	Training	-2.822	0.210	-1.836	-13.449	0.000
H _{1,6}	Continuous Improvement	0.234	0.077	0.169	3.060	0.002

^aDependent Variable: Digital Transformation

Table 5: The role of organizational culture as a moderator on the relationship between leadership practices and digital transformation

Model		Coefficients ^a			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
H ₂						
(Constant)		2.077	0.503		4.126	0.000
Leadership Practices		0.746	0.095	0.447	7.876	0.000
Organizational Culture		-0.218	0.087	-0.143	-2.522	0.012

^aDependent Variable: Digital Transformation

encourages and welcomes change is required. Organizations can effectively manage the obstacles of digital transformation and take advantage of development and competitiveness opportunities in the current digital landscape by comprehending and controlling this relationship. This study emphasizes that in order to get long-term results from digital transformation, deliberate investments in leadership development and cultural change are necessary.

5. CONCLUSION

It is clear from the data in Tables 3-5 that leadership practices are important for the adoption and success of digital transformation projects in businesses. With a standardized coefficient (Beta) of 0.454, Table 3 demonstrates a substantial positive correlation between the adoption of digital transformation strategies and overall leadership practices. This suggests that successful leadership practices have a beneficial impact on the execution of digital transformation strategies. Additionally, Table 4 explores particular aspects of leadership practices, showing the different ways that the adoption of digital transformation is impacted by digital leadership, strategic planning, communication, cost, training, and continuous improvement. With a high standardized coefficient (Beta = 2.145), communication stands out as a vital driver, highlighting the significance of effective communication in supporting digital transformation initiatives.

Additionally, Table 5 presents the moderating function of organizational culture on the association between the adoption of digital transformation and leadership practices. The organizational culture's negative standardized coefficient (Beta = -0.143) indicates that some organizational culture elements may operate as obstacles or restraints, reducing the efficacy of leadership techniques in advancing digital transformation projects. This research emphasizes how important it is to match leadership tactics with the current organizational culture in order to improve the results of digital transformation.

In summary, these results show how organizational culture, digital transformation adoption, and leadership approaches are intertwined. Successful digital transformation requires effective leadership, especially in areas like communication and strategic planning. However the effectiveness of leadership depends on how well the organizational culture meshes and changes. Prioritizing leadership development in line with cultural values that encourage creativity, adaptability, and teamwork is essential for organizations hoping to prosper in the digital age. Organizations may effectively manage the intricacies of digital disruption and optimize their digital transformation endeavours by tackling these dynamics with adaptability and resilience. Subsequent investigations have to persist in examining these correlations and pinpoint practicable approaches for harnessing culture and leadership to attain enduring effects in digital transformation.

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