

Midocean University

Faculty of Management

Department/Specialization: Public Health Management

Assessing the Impact of Digital Transformation on Project Success: Evidence from Saudi Organizations

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1 Chapter 1 : Introduction

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1.1 Research Background

Digital technologies are transforming the way organizations compete and operate, and how they deliver value to customers. Today, organisations will be taking the digital world by storm to become more efficient, better informed, streamlined and deliver strategic outcomes in the competitive landscape. This shift – called ‘digital transformation’ – is a strategic imperative for organisations in various industries around the world which influence their growth and sustainability.

Another significant issue for organisations is project success. Projects are a keyway that organizations execute strategic initiatives, innovations, and business goals. The traditional definition of project success is that it is done within the scope of the project, on time and on budget. But contemporary views on project management have expanded project success beyond these factors to other factors such as the satisfaction of stakeholders, quality performance, business value creation, and long-term organizational benefits.

Researchers and practitioners have begun to focus on the relationship between digital transformation and project success. Digital technologies have the potential to enhance project planning, communication, resource management, monitoring and risk management. Digital project management tools and data-driven decision-making systems don't only promote better collaboration; they also minimize mistakes and improve the teams' reaction to project issues. Digital technologies are rapidly changing how organizations operate, compete and provide value to their customers. Today, the digital world is increasingly being adopted by organisations to become more efficient, better informed, streamlined and to provide strategic outcomes in the competitive landscape. This transformation, known as digital transformation, is a strategic imperative for businesses in diverse sectors globally, shaping their growth and sustainability.

Digital transformation is the use of digital technology in an organisation and the transformation of the way business operates and creates value. Cloud Computing, Artificial Intelligence (AI), Big Data Analytics, Internet of Things (IoT), blockchain, and Digital Communication Platforms have made it possible for organizations to streamline processes, enhance collaboration, and boost efficiency. This means that organisations are putting a lot of effort in their digital transformation programmes to be able to compete in an ever-digital world. The actions taken have led to more investments in digital infrastructure, e-government services, smart technologies and digital business solutions in different sectors.

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While digital transformation is a growing focus of many organizations, many are still struggling to get projects to succeed. Some of the organisations say that they have seen significant benefits to their projects after the digital transformation, but others don't seem to achieve the anticipated benefits. Organizational culture, leadership support, employee readiness, technological capabilities, and change management practices can all impact the effectiveness of digital transformation initiatives and project success.

Additionally, previous research has yielded conflicting results on the association between digital transformation and project success. Literature, overall, indicates a positive relationship, but it is not known whether this relationship is stronger or weaker depending on organizational and environmental characteristics. Furthermore, most of the literature available is based on developed economies, and there is only limited empirical evidence on organizations in the Kingdom of Saudi Arabia. This means that additional research is needed into the relationship between digital transformation and project success in the Saudi context.

Thus, the purpose of this study is to evaluate the effect of digital transformation on achieving project success in Saudi companies. The study will compare the outcomes of digital transformation projects with their initiatives, and will offer insights to managers, policymakers, and researchers. The results should offer insights to academic research and inform decision-making on digital transformation's role in the successful delivery of projects and organizational improvement.

1.2 Research Problem

Digital transformation is one of the main strategies that companies are adopting to boost competitiveness, innovation and operational efficiency. In many sectors, digital technology, such as data analytics, AI, cloud computing and digital collaboration tools are being used and adopted, offering significant potential to enhance processes and achieve maximum organisational performance. With Vision 2030's targets to foster digital innovation and technological growth in both the public and private sectors, Saudi Arabia has been making excellent progress in implementing digital technologies.

All of these efforts are not enough and still many organizations have not got successful project outcome. Although digital transformation initiatives have the potential to enhance project performance, it is unclear how much digital transformation helps increase project success. There are some organisations that see benefits in project efficiency, communication and decision-making following the use of digital

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technologies, while others face challenges with implementation, resistance to change, cost overruns and delays.

The variability in results from projects indicates that the connection between digital transformation and project success is not well understood. To make sure that investments in digital transformation are making an impact, and what areas of digital transformation are working, organizations require empirical evidence. Thus, the primary concern of this study is the lack of knowledge of the impact of digital transformation on successful projects in Saudi organizations.

1.2.1 Theoretical Gap

Digital transformation and organizational performance are well-studied areas of research that have been studied separately in existing literature. Many research efforts have been conducted on the adoption of digital technologies and others have been conducted on project management and project success factors. Few, however, have specifically investigated the direct link between digital transformation and project success.

Moreover, most of the research has been carried out in developed countries in which technological level, cultural context and business environment are different from the ones in Saudi Arabia. Therefore, previous studies results may not entirely be suitable for Saudi organizations. Furthermore, the literature on the effects of digital transformation on project outcomes is ambiguous, leading to some uncertainty about its effects.

Thus, there is a gap in theory regarding how digital transformation impacts projects' success in the Saudi context. To overcome this, this research aims to fill the existing gap between digital transformation and project success within the organizational context in Saudi Arabia.

1.2.2 Practical Gap

Organizations in Saudi Arabia are spending significant resources on digital transformation efforts, both in terms of financial and human resources. The expectation of managers and decision makers is that these investments will enhance organization performance and boost the rate of project success. But there are still many organizations that have to deal with the problems of implementing technology, resistance by the employees, lack of digital skills, and poor project management practices.

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Many managers are not certain about what digital transformation efforts are most beneficial to the success of projects. This can lead to organizations spending money on technologies that they don't fully grasp and don't know how they affect project results. This can result in ineffective use of resources, and lower returns on digital transformation investment.

The reality comes down to lack of evidence-based recommendations that can support organisations to realize maximum benefits from their digital transformation project. This study seeks to identify the effects of digital transformation on project success and offer managers, project leaders and policy makers with practical implications for informed decision making concerning the adoption of digital transformation strategies and the project management practices.

1.3 Main Research Question

This research aims to answer the following main research question:

How digital transformation affects project success in the organizations of Saudi Arabia?

This question aims to investigate the relationship between the use of digital technologies and better project results, and how much digital transformation improves project performance. This study aims to explore the relationship between Digital transformation initiatives and project success based on evidence from the organizations in Saudi Arabia..

1.4 Research Significance

This study is important from theoretical and practical points of view. With the ongoing transformation in the operations of organizations across the globe, the influence of digital transformation on the success of projects has gathered more interest among researchers and practitioners. This research adds to the knowledge base on the linkage between digital transformation and the success of projects in Saudi organizations.

1.4.1 Theoretical Level

Theoretically this study adds to existing knowledge about digital transformation and project management. While there have been several studies on digital transformation and its impact on organizational performance, the impact of digital transformation on project success has not been extensively studied, especially in developing and emerging economies like Saudi Arabia. This research can help fill this gap by offering empirical evidence about the relationship between digital transformation and project success. The results will enhance the academic research body and could be used as a benchmark for future researchers who are interested in studying technology adoption, digital innovation, and project management performance. Moreover, the study contributes to the knowledge on the application of the theories of digital transformation in the Saudi Business Environment.

1.4.2 Practical Level

Practically, the study offers insights for organizational leaders, project managers, the policy makers, and decision makers. The findings will guide organisations to inform them about the impact of digital transformation efforts on project outcomes and help them identify practices that can enhance project performance.

In addition, the study can help managers to make informed investment decisions on digital technologies and strategies for digital transformation. The outcomes can help organizations enhance project planning, communication, collaboration and resource management, and achieve successful project outcomes. This study can also support the vision of Saudi Arabia 2030 in order to promote best practices for digital transformation in various fields.

1.5 Research Questions

The following research questions are given in order to be able to answer the main research question in the study:

1. What is the level of digital transformation in Saudi Arabia organisations?
2. How does Digital Transformation and Project Success go hand-in-hand in Saudi organizations?
3. What is the impact of digital transformation on project efficiency, effectiveness and project outcomes?
4. Which are the main digital transformation factors that can increase the project success?
5. Do the organizational factors of Management support, organizational size and industry type impact Digital transformation – project success?

The following kinds of questions can help to structure the influence of digital transformation on project results and direct the data collection and analysis process.

1.6 Research Objectives

The main goal of this study is to determine the effect of digital transformation on the success of projects in Saudi organizations.

The study aims to do this through the following specific objectives:

1. To look at the adoption of digital transformation by the organizations of Saudi Arabia.
2. To explore the connection between digital transformation and the success of projects.
3. To measure the impact of digital transformation on the project performance and project outcome.
4. To determine the most critical dimensions of digital transformation that can lead to successful projects.
5. To investigate if there is a relationship between digital transformation and project success which is influenced by organizational factors.

6. To give them clear actions that can help them be more successful as they implement digital transformation.

Achieving these objectives will contribute to a better understanding of how digital technologies support project management practices and organizational performance within the Saudi context.

1.7 Research Hypotheses

The following hypotheses are formulated based on the research problem, research objectives and previous literature:

H1: The impact of digital transformation on the success of projects in Saudi organizations is considered positive and significant.

H2: Adoption of digital technologies greatly enhances project efficiency and effectiveness.

H3: Digital transformation helps communication and collaboration among project participants and boosts the success of projects.

H4: Management support positively moderates the relationship between digital transformation and project success.

These hypotheses will be checked by employing statistical analysis to establish whether digital transformation is a significant factor in Saudi organizations in improving the success of their projects..

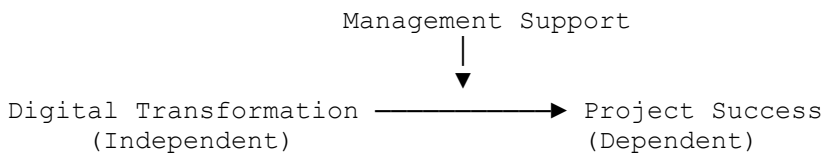
1.8 Research Model

The research model depicts the relationship between the study variables. The model suggests that the independent variable, the digital transformation, has an influence on the dependent variable project success. Besides, the moderating role of management support is added, as it can strengthen or weaken the relationship between digital transformation and project success.

1.8.1 Research Variables

Variable	Type
Digital Transformation	Independent Variable
Project Success	Dependent Variable
Management Support	Moderating Variable

1.8.2 Conceptual Research Model



1.8.3 Variable Definitions

Digital transformation (Independent Variable):

Understands how digital technologies, systems and processes contribute to enhancing the performance, decision making, communication and operation of an organisation.

Project Success (Dependent Variable):

Means the project meets and exceeds expectations with regard to project outcomes, scope, budget and time, meets stakeholder expectations, and provides expected organizational benefits.

Management Support (Moderating Variable):

Relates to the willingness, engagement and backing from leadership in enabling digital transformation projects and activities.

The proposed model assumes that the organizations that have a higher degree of digital transformation will be more successful with the project. In addition, effective digital transformation initiatives are expected to improve with the support of strong management, and have a positive impact on project success.

1.9 Scope of the Study

This study focuses on the influence of Digital transformation on project success in the organizational context in Kingdom of Saudi Arabia only. The study is targeting organizations

that already have, or are in the process of, implementing or even have embarked on digital transformation as part of their business and strategic processes.

The intended users are project users, including managers, project managers, team leaders and employees directly engaged in project planning, execution, and management. Their experiences and perceptions are taken into account to gauge the impact of digital transformation on project results.

The study focuses on the relationship between the practices of digital transformation and the success of a project. Digital transformation is examined as the independent variable, while project success is considered the dependent variable. Moreover, moderating factors such as management support are added to evaluate its impact on the relationship between digital transformation and project success.

The current study is limited to local organizations within Saudi Arabia. The results, then, are specific to the Saudi business environment and may not be applicable to businesses in other countries that have various economic, technological and cultural circumstances.

The study will take place in the academic year 2025–2026 and will focus on data gathered from the participants in that year. The research is not technical in terms of specific digital technologies, but concerns the organisational viewpoints about digital transformation and project performance.

1.10 Project Structure

The research project is designed in five chapters focusing on different aspects of the research.

Chapter One: Introduction

This chapter gives an overview of the research topic and gives the background of the study. It presents the research problem, theoretical and practical gaps, the importance of the research, the research questions, the research objectives, the research hypotheses, the research model, the research scope, and the project structure.

Chapter 2: Literature review.

The previous chapter summarizes the literature reviewed on the topic of digital transformation and project success. It explains theoretical background, important concepts, previous research and findings that will support the conceptual framework and research hypothesis.

Chapter Three: Research Methodology

The chapter presents the method of research used in this research. It contains the research design, population and sample, data collection techniques, research instruments, procedures for determining validity and reliability, and statistical tools for data analysis.

Chapter 4: Data Analysis and Results.

The data collected and the findings from the statistical analysis are given in this chapter. It provides descriptive statistics, hypothesis testing, interpretation of results, and discussion of the correlation and the relationship between DT and success of the project.

Chapter 5: Conclusions and Recommendations

This chapter highlights the major findings of the study, the findings of the study objectives and hypotheses, the theoretical and practical implications of the study, the limitations of the study and the recommendations of the study for organizations and future studies.

2.1 Introduction

In today's 21st century, digital transformation is a significant transformation of an organization. The world of information and communication technology, artificial intelligence, cloud technology, big data, the internet of things (IoT), blockchain and digital collaboration platforms has revolutionized the way organisations operate, compete and create value for their stakeholders. Digital technologies are emerging as an important tool for sustainable competitive advantages for organisations, in order to enhance the activities of their business, increase their operational efficiencies and achieve a level of customer satisfaction.

Digital transformation is more than just the introduction of new technologies. It is a holistic process of change in the organization that transforms business models, organizational structures, leadership practices, employee capabilities, etc., and the strategic decision-making processes. Organizations need to reimagine the traditional work model and adopt digital technologies into various aspects of their activities to foster digital transformation. Therefore, businesses that actively transition towards a digital transformation can be better prepared to navigate the changes in the market, enhance productivity, and achieve more favorable outcomes.

Project Management is one of the areas most affected by the digital transformation. Past projects relied on the effective planning, allocation of resources, communication, risk management, and engagement of the project stakeholders. With the advent of digital technologies, however, new tools and approaches have emerged to aid in the execution and monitoring of projects. Today's project management software solutions can facilitate instant communication, automatic reporting, forecasting, working in the cloud, and data-driven choices, all of which help to enhance the efficiency of projects.

Digital transformation and project success have become a focus for research and practice. Factors used to measure project success include the ability to reach project goals, on budget and on time, quality, meeting stakeholders' requirements, and adding value to the organization. Digital technologies can positively impact all of these facets: through improved information flow, increased operational efficiency, improved decision-making and better coordination of project teams.

Digital transformation is a national agenda in Saudi Arabia in accordance with the vision 2030. Technological innovation, digital government services, smart cities, knowledge-based industries and organisational modernization are highlighted as important factors in economic diversification and sustainable development in Vision 2030. Consequently, there is a growing trend of the use of digital technologies in Saudi Arabia among public and private organizations to enhance the organization's performance to realize its strategic goals. The Kingdom's initiatives towards becoming a globally competitive digital economy are manifested in a number of major projects and initiatives, such as digital government transformation projects, smart city projects, ecommerce expansion projects and projects on AI adoption/

Although digital transformation initiatives have been made in Saudi organizations, there is scarce empirical evidence on the extent to which these initiatives can help in the success of the digital transformation project. Although many organizations have embraced digital technologies, the impact digital technologies have on project performance outcomes is not yet well understood. In addition, organizational culture, leadership support, employee digital skills, change resistance, and technological readiness can impact the success of digital transformation initiatives.

The evidence that already exists indicates that organisations have widely varying capabilities to use digital technologies in a project to achieve success. Others succeed with digital transformation in delivering huge project performance improvements and others fail to deliver on promised benefits from a significant investment in digital transformation. This variation emphasizes the need to understand how digitalization affects the successful completion of a project and what factors can help or hinder the successful implementation of a project.

Hence, it is needed to do a thorough literature survey to gain an adequate theoretical and empirical understanding for this study. The aim of this chapter is to review previous studies on digital transformation, project management, organizational performance and technology adoption to find out what are the concepts, theories and empirical studies pertaining to the field of study. The chapter also points out literature gaps, especially in the Saudi Arabian context, to justify the current study.

This literature review is considered the academic support in the study of the effect of digital transformation on project success in Saudi organizations. It brings together existing

knowledge, considers relevant theories, reviews the empirical evidence; and sets up the conceptual framework which will inform the research. The purpose of this study is to further the understanding of the potential of digital transformation to improve project results and aid organizational success in a digital business world through this review.

Study 1: Vial (2019) – “Understanding Digital Transformation: A Review and Research Agenda”

Vial (2019) carried out one of the most detailed studies on digital transformation, studying the impact of digital technologies on organizational transformation and business performance. The study gave a concept of digital transformation and provided a framework for research in the field of digital transformation, which makes it a key reference that is used in the study of digital transformation. The initial aim of the research was to compile and distill the knowledge on digital transformation and to pinpoint mechanisms of value-creation of digital technologies for organisations.

The study was aware that digital transformation is frequently confused with the use of new technologies. Vial said digital transformation is an organizational phenomenon that is represented by a significant change in value creation mechanisms, customer interactions, leadership approaches, organizational structure and business processes. The study defines digital transformation as organisations that strategically implement digital technologies to enhance operations and adapt to the ever-evolving environmental conditions.

The researcher has used the systematic literature review methodology to attain its goals. A significant number of academic articles, conference papers, and industry reports were considered and analysed on digital transformation, information systems, organizational change, and digital innovation. The researcher conducted a literature review and literature synthesis to create a broader understanding of the role of digital technologies in organizational performance and organizational change processes.

The research also illustrated that the implementation of digital transformation goes beyond technology investments. Complementary capabilities include digital leadership, employee digital skills, organizational agility, and an innovative culture. If left to their own devices,

organizations can face challenges implementing digital transformation initiatives without these supporting elements.

The identification of key challenges related to digital transformation was an important contribution made by the study. The obstacles faced are resistance to change by employees, inadequate technological infrastructure, cybersecurity concerns, lack of strategic alignment with the business, and lack of management support. The researcher stressed that there is a need to preemptively solve these challenges, if organisations are to achieve desirable outcomes of transformation.

The results are very relevant to project management and project success. The use of digital technologies can enhance project planning, scheduling, communication, collaboration, monitoring and risk management. Advanced project management software for digital projects allows project teams to communicate and share information instantaneously, monitor projects with precision, and make informed decisions based on data analytics. Therefore, companies that are making successful digital transformation will be more likely to deliver projects on budget, meet deadlines, quality requirements, and report the stakeholders' expectations.

Moreover, Vial (2019) pointed out that organizational adaptability was one of the determining factors for achieving the success of organizational transformation. Companies that adopt a continuous learning, innovation, and strategy adjustment approach are better able to effectively utilize digital technologies. This flexibility is a direct asset to project success as projects frequently must work in dynamic environments where change and quick response is required.

The study recommended that additional empirical studies would be beneficial to investigate the digital transformation and organizational performance relationship in other industries and cultural settings.

Regarding the current study, Vial's study gives a solid foundation from a theoretical perspective of the effect of digital transformation on the success of project management in the Saudi organizations. The study contributes to the argument that digital transformation boosts the capability of organizations, project management practices, and positively impacts the project outcomes. It also emphasizes on the preparedness of the organization and leadership support, which are likely to be significant in the Saudi context.

Study 2: Alharbi (2019) – *Assessment of Organizational Digital Transformation in Saudi Arabia*

Alharbi (2019) surveyed Saudi Arabia organizations to determine their digital transformation level and identify the success factors of digital transformation adoption. The study was motivated by the increasing importance of digital technologies and the Saudi government's efforts to promote digital transformation under Vision 2030.

The focus of the study was to assess the readiness of the organisation for digital transformation, and the challenges and opportunities of implementing digital technologies. The study aimed to gain insights into Saudi organisations adapting to technological changes and their integration of digital solutions in their operations.

The study used a quantitative approach with data being collected from employees and managers of different Saudi organisations. Digital transformation, organizational readiness, technological capabilities and management support perceptions were measured using survey questionnaires. The collected data was analyzed to draw conclusions about the current situation of digital transformation in Saudi organizations.

The results showed that the importance of digital transformation in Saudi Arabia is increasing with the growth and competitiveness of organizations. Digital technology adopters said that it has led to better operational efficiency, communication effectiveness, information management and decision-making processes. The study also found that there were key factors to look at for successful DT such as management support and employee readiness.

Besides, the study revealed some problems which need to be overcome to attain a digital transformation which are the resistance to change, the lack of technical skills, the lack of training and the lack of technological infrastructure. They were found to be at least one of the obstacles to the transformation and effective digital initiatives.

The study revealed that digital transformation is a complex balance of investment in technology, training, leadership, and readiness within an organization. For Saudi organizations to be successful, they should clearly outline their digital strategy and continually develop their own digital abilities.

The researcher suggested that digital technologies should be more invested, employee training programs should be reinforced, the promotion of innovation and the improvement of

leadership support for digital technologies. Policies that make technology and change within the organization easy to implement should also be established.

Alharbi (2019) is very relevant to the current study as it offered evidence from Saudi context about the importance of digital transformation. The findings suggest that digital technologies can be leveraged to improve the effectiveness of organizations and to deliver positive impacts for the projects they deliver by aiding communication, efficiency and the better making of decisions.

Study 3: Verhoef et al. (2021) – “Digital Transformation: A Multidisciplinary Reflection and Research Agenda”

The aim of the study by Verhoef et al. (2021) was to explore digital transformation with an extensive study from both academic and managerial points of view. The study is regarded as one of the most influential works in the field of digital transformation literature, combining the perspectives of information systems, marketing, strategic management, innovation and organizational studies. The main aim of the research was to build a deeper understanding of the concept of digital transformation and determine how digital technologies can be best applied to enhance the performance of organisations to stay competitive in the dynamic business landscape.

The authors were aware that digital transformation is a key strategic focus for all organizations around the globe. Digital transformation has taken the center stage as organisations have been compelled to adapt to traditional business models by implementing digital technologies due to various factors such as technological development, customer expectations, globalization, and competition. This study aimed to uncover the impacts of digital transformation on organizational structures, business models, processes and results.

The researchers used a conceptual and multidisciplinary review methodology to accomplish these objectives. The research involved pooling data and insights from a wide range of academic papers, research publications and theoretical frameworks covering digital transformation. The research team was able to create a holistic framework which captures the

drivers, processes, and outcomes of digital transformation projects by drawing on knowledge from different disciplines.

The results showed that digital transformation is a multifaceted phenomenon in organizations and requires a significant transformation of technology, strategy, culture and operations. The researchers found that technological innovation, changing customer requirements, competition, and efficiency demands of organizations were a few of the primary drivers of digital transformation. All these factors drive an organization's motivation to invest in digital technologies and to undertake transformation initiatives.

A key finding was that digital transformation has a significant beneficial impact on organisational agility. Organizational agility is the ability of the organization to quickly detect environmental change and act on new opportunities and threats. The research identified that use of digital technologies empowers organisations to enhance their responsiveness by accessing information in real-time, utilizing shorter communication systems, and providing more flexible operational processes. Organizations, as a result, are more prepared to deal with uncertainty and to respond to variations in business environments.

Another significant finding was the effects of digital transformation on communication and collaboration. The scientists discovered digital platforms support smooth communications between employees, departments, stakeholders and project teams. Cloud computing, ERP systems and collaborative software applications enhance communication and coordination between and within organizations.

One more revelation emphasized the significance of a customer-centric transformation. Successful digital transformation should not be about the efficiency improvements that will be realized within the organization, the researchers said. Rather, digital technologies need to be used to improve customer experience and the creation of value for stakeholders, as well. Customer-centric digital efforts have a higher likelihood of delivering sustainable enhancements to performance and long-term success.

While there are many advantages to pursuing digital transformation, the study revealed that some organizations face the following challenges. Challenges include technological complexity, organizational resistance to change, cybersecurity risks, lack of digital skills, and the challenge of linking up digital efforts with strategic goals. The researchers observed that

the expected benefits that organizations can achieve are impeded when they don't consider the organizational changes that are necessary for successful transformation.

The recommendations included the need for the development of integrated digital transformation strategies. Organizations should make sure that any new technology investment is related to business goals and backed by organizational skills. The authors also suggested further developing digital leadership, building innovative cultures, investing in the development of staff and building governance for digital transformation programs.

This study is relevant to the present study. The authors of Verhoef et al. (2021) clearly demonstrate that digital transformation fosters organisation agility and communication, and decision making and innovation, key factors for successful projects. The results in the Saudi organizations context where digital transformation is a part of vision 2030 can help explain the contribution digital initiatives can make to project outcomes and organisation performance.

Study 4: Nwankpa and Roumani (2016) – “IT Capability and Digital Transformation: A Firm Performance Perspective”

Nwankpa and Roumani (2016) performed comprehensive research on the relationship between information technology (IT) capabilities, digital transformation, and the performance of organizations. The study centered around the understanding of how organizations can utilize their technology resources and capabilities to enhance the achievement of their business outcomes and effectiveness at achieving those. The researchers tried to pinpoint the underlying processes which explain how IT capabilities support successful digital transformation processes and organizational success.

The major aim of the study was to investigate if IT capabilities can act as a base to digital transformation and how those capabilities can impact organizational performance. The researchers suggested that a mere investment of technology is not enough to get a positive organizational outcome. Rather, organisations need to build robust technology competencies to effectively leverage digital resources and incorporate technology into business processes. The study adopted quantitative research methods to achieve the purpose. Data was gathered using questionnaires given to managers and workers of organizations in different industries. Several constructs were measured in the survey, such as IT capabilities, activities of digital

transformation, organizational agility, innovation performance and overall firm performance. The relationship between these variables and the proposed research model were analyzed using advanced statistical techniques.

The results showed that there was a positive correlation between the IT capabilities and the success of digital transformation. Those with high tech facilities, IT professionals and tech management processes were more successful at digital transformation”. These organisations were more successful in introducing new technologies, in embedding digital systems and improving business performance.

It was also found that the organizations with better IT skill levels are more efficient in their operation. Digital technologies help to automate repetitive tasks, decrease administrative workload, prevent human errors, and make use of resources efficiently. This means that organizations can accomplish tasks more efficiently and use resources more effectively. These efficiencies are directly linked to project success in terms of cost, productivity and quality.

An important contribution of the study was its emphasis on the mediating role of digital transformation. The results indicated that IT capabilities do not necessarily translate to performance. Digital transformation, on the other hand, is a process of creating organizational values from technological capabilities. To reap the benefits of technological investments, organisations need to change their processes, structures and practices.

The study found that IT capabilities are a strategic organizational resource that plays a key role in the success of digital transformation and in the performance of the organization. Those companies that can create and put into use technological abilities are more likely to attain innovation, agility, operational excellence, and sustainable competitive advantage.

The recommendations highlighted the need for technological infrastructure investments, upskilling and training in digital skills. There should also be clearly defined digital transformation strategies mapped to business goals, as organizations invest in technology. As organizations invest in technology, they should also have clear digital transformation strategies mapped to business goals. In addition, a culture of innovation, collaboration and continuous learning should be promoted within the organization to ensure that digital transformation initiatives deliver the greatest possible value.

This study is relevant to the present study. As found by Nwankpa and Roumani (2016), technological capabilities are key to the success of any digital transformation project. The results indicate that organisations that have good IT skills are more likely to deliver successful projects as effective communication, coordination, decision making and resource management are key elements in project delivery success. The study sheds light on the significance of technological capabilities in enhancing projects' performance and organizations' efficiency and effectiveness for Saudi organizations in their digital transformation process within the framework of Vision 2030.

Study 5: Al-Ayed et al. (2024) – *The Effect of Digital Transformation on Organizational Performance by a Mediating Role of Digital Innovation*

Al-Ayed et al. (2024) examined the relationship between digital transformation and the performance of the organization in Saudi Arabia with a special focus on digital innovation as a mediator. It was carried out on employees in large listed Saudi companies on the Saudi stock market. The main goal was to understand the impact of digital transformation on the performance of an organization and how digital innovation enhances this relationship.

The researchers used quantitative research, and the data were retrieved by using an online questionnaire which was sent to the people working in various big companies in Saudi Arabia including the telecommunications companies such as STC, Mobily, and Zain. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used in the analysis of 170 valid responses.

The results showed that there was a positive effect of digital transformation on the performance of the organization. Specifically, the technological and social aspects of digital transformation had a positive effect on digital innovation, which further led to an enhancement of financial performance, internal processes, customer satisfaction and organizational learning. This study concluded that organizations that have implemented digital technologies have higher efficiency, innovation and overall performance.

The researchers found that digital transformation exists along with digital innovation, and that both are important factors to help organizations succeed. Modern technologies and a culture of innovation are essential for achieving sustainable performance improvements and competitive advantages for the organisation.

The study suggested that the organizations in the Kingdom of Saudi Arabia keep investing in digital technologies; build the digital leadership skills within their organizations; enhance the digital skills of their workers; and foster innovation to reap the most benefits of digital transformation.

In today's study, the results indicate that there is strong evidence to suggest that digital transformation has increased organizational performance by boosting innovation, communication, efficiency and learning capabilities. The study findings strengthen the argument that digital transformation has the potential to play a significant role in successful projects in Saudi organizations, given the importance of many of these factors.

Study 6: Westerman et al. (2014) – *The Digital Advantage: How Digital Leaders Outperform Their Peers in Every Industry*

Westerman, et al. (2014) explored the role of digital transformation in achieving organizational performance and competitive advantage. The research objective was to uncover the traits of organizations that are effective in using digital technologies and then in delivering better business results.

The researchers adopted survey methods with organizations from various industry sectors across the globe. Data was gathered from executives and managers of digital transformation initiatives. Organizations were assessed in terms of their digital capabilities and effectiveness of their leadership.

The results showed that firms that have strong digital leadership and high digital capabilities have systematically outperformed their peers. These organisations had higher operational efficiency, more satisfied customers, more innovative, and higher successful project rate. The research also revealed that transformational leadership and technological investment are key to a successful digital transformation. The strongest improvements in performance were made by organisations that implemented good management practices as well as excellent digital technologies.

The study suggested that there is a need to invest in digital leadership development, reinforce digital capacities and link technology initiatives to strategy. The ability for continuous

innovation and organizational learning was also cited as one of the key elements to maintaining successful digital transformation.

In the current study, Westerman et al. (2014) offer valuable insights into the positive impact of digital transformation on project success: efficiency, communication, leadership and organizational performance.

Study 7: Sebastian et al. (2017) – *How Big Old Companies Navigate Digital Transformation*

Sebastian et al. (2017) looked at the implementation of digital transformation initiatives and the resulting business performance in large organizations. The goal of the study was to get a better sense of the approaches and practices of organisations to successfully embrace digital change without compromising operational effectiveness.

The researchers used a case study approach, studying several large organisations that have been through extensive digital transformation programmes. Interviews, organizational reports, and business performance records were used to collect data.

The results indicated that effective companies make sure digital transformation programs are integrated with business strategies. Digital technologies enhanced project coordination, communication, information sharing, and decision-making processes. The research also revealed that 61 percent of organizations with a digital strategy and leadership support for their projects reported the successful results of the projects, whereas 37 percent reported a moderate success and 17 percent reported unsuccessful results.

Furthermore, digital platforms improved collaboration within project teams and between stakeholders, leading to improved project planning, execution and monitoring. The digital technology integration that proved successful led to better project efficiency, innovation and customer satisfaction.

The study found that a balance is required between technological innovation and organisational change in order to enable digital transformation. Leadership buy-in, employee engagement and the ability to connect digital initiatives with strategic goals is key to success. The researchers suggested that organizations should create an overarching digital strategy, provide staff training, and regularly assess the transformation results to optimise the benefits of the transformation.

Sebastian et al. (2017) support this research by offering evidence that digital transformation improves collaboration, communication and organization effectiveness, resulting in project success.

Study 8: Teece, Pisano, and Shuen (1997) – Dynamic Capabilities and Strategic Management

Teece et al. (1997) discussed the ability of organizations to build dynamic capabilities to respond to the evolving business environment. The study sought to describe how companies gained competitive success over continuous innovation and reconfiguration of resources.

Based on the conceptual research approach, the authors presented the Dynamic Capabilities Theory that focuses on how an organization can adapt by integrating, developing and reconfiguring its resources to deal with environmental changes.

The results revealed that organisations with a high degree of DCS have greater abilities to adopt new technologies and adjust to the changes of markets and increase organisation performance. Digital transformation improves these capabilities, helping organizations to be agile, innovative and responsive.

The study concluded that it is necessary to adapt the technology and be flexible and adaptable in the organization for long term success. Firms that are constantly improving their skills are more likely to have better projects and business results.

The authors suggested the importance of investing in innovation, learning and technological development to stay competitive in a changing environment.

Therefore, the concept of Digital Transformation offered by Dynamic Capabilities Theory is useful for the current study to illustrate how DT can improve organizational adaptability and responsiveness to increase project success.

2.2 Theoretical Framework

The theoretical framework offers conceptual understanding of the digital transformation impact on the project success of organizations. This research is underpinned by three main theories on technology adoption, organizational resource utilisation and organizational adaptability. These theories are the Technology–Organization–Environment (TOE) Framework, Resource-Based View (RBV), and Dynamic Capabilities Theory. These theories

offer a comprehensive understanding of how digital transformation can help to achieve successful project outcomes in Saudi organisations.

2.2.1 Technology–Organization–Environment (TOE) Framework

Tornatzky and Fleischer (1990) formulated the Technology–Organization–Environment (TOE) Framework which helps to explain variables that affect the organizational adoption of technological innovations. The context is split into three categories: technological, organizational and environmental.

Technological context is the characteristics and availability of technologies that an organization is able to adopt. Such technologies can involve cloud computers, AI systems, ERP (enterprise resource planning) systems, big data analysis, and electronic communication platforms. Digital technologies are more likely to be adopted if the organization believes the technology is useful, reliable and will enhance the performance of the organization. Digital technologies are tools that support communication, collaboration, monitoring and decision-making and are therefore beneficial for project success in the project management context.

Organizational context refers to the organizational attributes including organizational size, management support, employee competency, financial resources and organizational culture. Companies that are better equipped to implement digital transformation efforts tend to have strong leadership support, adequate financial and skilled staff. Especially key is management commitment as digital transformation can involve a lot of investment, organizational change and employee adaptation.

The environmental context includes aspects of the external world, including market competition, government regulations, technological trends and customer expectations. Digital technologies are often used to help organisations stay competitive and to satisfy evolving stakeholder requirements. The wider Saudi Arabia Government initiatives have fostered an enabling environment for digital transformation, driving technology advancements and organizational modernization within the country.

The TOE Framework is very relevant for the current study as it puts into perspective the role of technological, organisational and environmental factors as a whole in influencing digital

transformation efforts. By adopting digital technologies, project planning, communication, resource management, and risk control can be improved, resulting in greater project success.

2.2.2 Resource-Based View (RBV)

Barney (1991) presented his Resource-Based View (RBV) which is one of the most influential theories in strategic management. The theory states that performance is best when an organisation has valuable, rare, inimitable and non-substitutable resources. These resources help organizations to create hard-to-replicate competitive advantages.

RBV claims that a company's success is dependent on both external market conditions and internal resources and capabilities. The technological infrastructure, data analytics capabilities, digital platforms, employee expertise and information systems are key strategic resources in the digital age. Effective resource development and utilization can enhance efficiency, innovation, and performance of organizations.

Digital transformation empowers organizations with cutting-edge technology and boosts the effectiveness of their staff. Digital systems enable accessibility, communication, collaboration and knowledge sharing of information. These enhancements directly relate to better project management and project success.

The theory also states that an organization that has high digital capability will be able to run a project effectively as compared to an organization that has a limited technological resource. Project scheduling, budgeting, risk management and performance monitoring are facilitated by the use of advanced digital tools. As a result, organizations whose assets are robust in the digital space will have a higher chance of finishing projects on time, on budget and at a high level of quality.

Digital transformation can be seen as a strategic resource of an organization and improve project performance, which is relevant to this research because in this case RBV is applicable. Organizations in Saudi Arabia investing in digital technologies are likely to create unique capabilities that will enhance the success of projects and competitiveness of organizations.

2.2.3 Dynamic Capabilities Theory

Dynamic Capabilities Theory has been developed by Teece, Pisano and Shuen (1997) to provide answers to how organisations adapt to fast changing business environments. This

theory concentrates on the capacity of an organisation to integrate, build and reconfigure its internal and external resources to effectively respond to environmental change.

The theory states that in dynamic settings, organizations face technological innovations, changing customer preferences, competition, and economic uncertainty. Organizations have to continuously evolve and refresh their capacities to be competitive. Dynamic capabilities help organizations to realize opportunities, react to challenges, and make strategic changes effectively.

Digital transformation is a key enabler of dynamic capabilities. Digital collaboration tools, big data analytics, AI, and cloud computing technology can make organizations flexible and agile. These technologies enhance organizational learning, innovation and decisionmaking capacity. Dynamic capabilities in project management are used to deal with uncertainty and adjust the project activities to the modified situation. The use of digital technologies can help project managers track progress, proactively address risks, and make timely adjustments as needed. This flexibility raises the chances of meeting the objectives of the project in the face of environmental difficulties.

Additionally, the theory puts a value on innovation and organizational learning as ongoing processes. The organizations that are taking the proactive approach towards digital transformation are better equipped to create new solutions, streamline processes, and deliver sustainable performance gains. Consequently, dynamic capabilities can play a vital role in shaping the success of a project and the organization's long-term development.

Dynamic capabilities theory is useful in explaining how digital technologies can improve the adaptability of organizations and project performance in Saudi organizations seeking digital transformation on the basis of Vision 2030. A continuous evolution and reconfiguration of digital capabilities means organizations are more likely to have a successful project outcome and retain competitive advantages.

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