

Midocean University
Faculty of Management



Project Management – Collage of Management

The Impact of Digital Transformation on Project Management
Performance: A Study of SABIC Company

Amjad Aziz Al-Amri

1083432599

Final Project - 1

Faculty of Management - Midocean University

Supervisor

Dr. Abdulrahim Nader

Aug 12th, 2026 – Final Semester

Table of Content

Table of Content	1
List of Figures	3
List of Tables	3
1. Introduction	3
2. Research Problem.....	6
3. Research Significance.....	7
3.1 Theoretical Significance	7
3.2 Practical Significance	8
4. Research Questions.....	9
5. Research Objectives	9
6. Research Hypotheses.....	10
7. Research Model.....	12
8. Research Methodology	14
8.1 Research Design.....	14
8.2 Research Strategy	15
8.3 Study Area.....	15
9. Scope of the Study.....	16
10. Population of the Study.....	16
11. Sample of the Study.....	17
12. Data Collection Methods.....	18
13. Research Instrument	19
14. Validity and Reliability	20
15. Data Analysis Techniques.....	21

16.	Ethical Considerations	22
17.	Chapter 2: Literature Review	23
17.1	Introduction	23
17.2	Digital Transformation	24
17.2.1	Definition of Digital Transformation.....	24
17.2.2	Evolution of Digital Transformation	25
17.2.3	Dimensions of Digital Transformation	25
17.3	Project Management Performance	28
17.3.1	Concept of Project Management Performance.....	28
17.3.2	Dimensions of Project Management Performance	28
17.4	Theoretical Framework	29
17.4.1	Technology–Organization–Environment (TOE) Framework.....	30
17.4.2	Resource-Based View (RBV)	31
17.5	Empirical Review of Previous Studies	32
17.6	Comparison of Previous Studies	36
17.7	Research Gap	36
17.8	Summary of the Literature Review	37
18.	Chapter 3: Proposed Project Structure.....	38
18.1	Proposed Project Structure	38
18.2	Proposed Project Timeline.....	40
18.3	Expected Outcomes	40
18.4	Expected Contribution of the Study	41
19.	Conclusion	42
20.	References (APA 7th Edition)	43

List of Figures

Figure	Title	Page
Figure 1	Conceptual Research Model	14

List of Tables

Table	Title	Page
Table 1	Empirical Review of Previous Studies	32
Table 2	Proposed Variables	11
Table 3	Five-point Likert Scale	18
Table 3	Demographic Characteristics of Respondents	21

1. Introduction

Digital transformation has become one of the most influential strategic initiatives adopted by organizations seeking to enhance operational efficiency, innovation, and long-term competitiveness. The rapid advancement of digital technologies—including artificial intelligence (AI), big data analytics, cloud computing, the Internet of Things (IoT), automation, and enterprise resource planning (ERP) systems—has fundamentally changed the way organizations plan, execute, monitor, and evaluate projects. These technologies provide organizations with improved decision-making capabilities, enhanced communication, greater transparency, and more effective resource utilization, all of which contribute to successful project delivery.

In project management, digital transformation extends beyond the adoption of new technologies; it represents a comprehensive organizational change affecting project governance, stakeholder communication, risk management, scheduling, cost control, and performance measurement. Modern digital project management platforms enable project managers to monitor project progress in real time, automate routine tasks, predict potential risks using data analytics, and improve collaboration among multidisciplinary teams. Consequently, organizations that successfully implement digital transformation initiatives are expected to achieve higher levels of project performance compared to organizations relying on traditional project management practices.

The increasing complexity of projects, coupled with growing customer expectations and competitive business environments, has encouraged organizations worldwide to integrate digital transformation into their project management strategies. Previous studies have suggested that digital technologies improve project efficiency, reduce project delays, strengthen collaboration among stakeholders, and enhance overall project success. However, the extent to which digital transformation contributes to project management performance differs across organizations, industries, and organizational cultures, creating a continuing need for empirical investigation.

In Saudi Arabia, digital transformation has become a national priority under Vision 2030, which emphasizes technological innovation, digital government, industrial modernization, and sustainable economic development. Large organizations are investing substantially in digital

capabilities to improve operational excellence and project outcomes. Within this context, Saudi Basic Industries Corporation (SABIC) has emerged as one of the leading industrial organizations implementing advanced digital technologies across its manufacturing, engineering, and project management operations. SABIC has adopted various digital initiatives aimed at improving productivity, operational efficiency, and project execution, making it an appropriate setting for examining the relationship between digital transformation and project management performance.

Despite the growing adoption of digital transformation practices, many organizations continue to experience challenges in fully realizing the expected benefits. Factors such as employee resistance to change, insufficient digital competencies, integration difficulties, cybersecurity concerns, and organizational readiness may reduce the effectiveness of digital transformation initiatives. Moreover, although numerous international studies have examined digital transformation, relatively limited empirical research has specifically investigated its impact on project management performance within large industrial organizations operating in Saudi Arabia.

Accordingly, this research seeks to investigate the impact of digital transformation on project management performance by examining SABIC as a case study. The study aims to evaluate how digital transformation practices influence project planning, execution, monitoring, communication, decision-making, and overall project success. The findings are expected to contribute to both academic literature and practical project management by providing evidence-based recommendations that support

organizations in maximizing the value of digital transformation initiatives while improving project performance and achieving strategic objectives.

2. Research Problem

Digital transformation has become a strategic priority for organizations seeking to improve operational efficiency, innovation, and competitiveness. Organizations increasingly invest in advanced digital technologies such as artificial intelligence (AI), cloud computing, enterprise resource planning (ERP) systems, big data analytics, and the Internet of Things (IoT) to enhance project planning, execution, monitoring, and decision-making. While these technologies offer considerable opportunities for improving project management performance, many organizations continue to experience difficulties in achieving the expected benefits.

Several studies indicate that digital transformation initiatives frequently face implementation challenges, including inadequate organizational readiness, employee resistance to change, limited digital competencies, integration issues between digital systems, and concerns related to cybersecurity and data management. These challenges may reduce the effectiveness of digital transformation and negatively affect project performance.

As one of Saudi Arabia's leading industrial organizations, SABIC has invested significantly in digital transformation initiatives to support operational excellence and improve project delivery. However, despite these

investments, limited empirical research has specifically examined the extent to which digital transformation contributes to improving project management performance within SABIC. Most previous studies have focused on digital transformation in general organizational contexts rather than its direct influence on project management performance within Saudi industrial organizations.

Therefore, the research problem can be summarized as follows:

There is limited empirical evidence regarding the impact of digital transformation on project management performance within SABIC in Saudi Arabia. This study seeks to examine whether digital transformation significantly improves project management performance and to identify the dimensions through which this relationship occurs.

3. Research Significance

3.1 Theoretical Significance

This study contributes to the growing body of knowledge concerning digital transformation and project management by integrating two important fields that continue to evolve rapidly. Although digital transformation has received considerable academic attention, relatively few studies have specifically investigated its influence on project management performance within large industrial organizations in Saudi Arabia.

Furthermore, this research contributes to understanding the relationship between digital transformation practices and project management outcomes by extending existing literature within the context of Saudi Vision 2030 and industrial digitalization. The study also provides a conceptual framework that may support future researchers investigating digital transformation in project-oriented organizations.

3.2 Practical Significance

The practical significance of this study is expected to benefit several stakeholders.

For SABIC management, the findings may provide evidence regarding the effectiveness of current digital transformation initiatives in improving project performance and identify areas requiring further improvement.

For project managers, the study may help identify digital capabilities that contribute most significantly to successful project planning, execution, communication, monitoring, risk management, and decision-making.

For policy makers, the findings may support ongoing digital transformation initiatives aligned with Saudi Vision 2030 by demonstrating the practical value of digital technologies in improving organizational project performance.

Finally, the study may assist other industrial organizations considering digital transformation by providing practical recommendations that facilitate successful implementation and maximize project outcomes.

4. Research Questions

Main Research Question

What is the impact of digital transformation on project management performance in SABIC, Saudi Arabia?

Sub-Questions

1. To what extent has SABIC implemented digital transformation practices within project management?
2. What is the current level of project management performance in SABIC?
3. What is the relationship between digital transformation and project management performance?
4. Which dimensions of digital transformation have the greatest influence on project management performance?
5. What challenges affect the successful implementation of digital transformation in project management within SABIC?

5. Research Objectives

Main Objective

To examine the impact of digital transformation on project management performance in SABIC, Saudi Arabia.

Specific Objectives

1. To assess the level of digital transformation implementation in SABIC.
2. To evaluate the current level of project management performance within SABIC.
3. To examine the relationship between digital transformation and project management performance.
4. To determine the influence of digital transformation dimensions on project management performance.
5. To identify the major challenges affecting digital transformation implementation in project management.
6. To provide recommendations that enhance project management performance through digital transformation.

6. Research Hypotheses

Main Hypothesis

H1: Digital transformation has a statistically significant positive impact on project management performance in SABIC.

Sub-Hypotheses

H1a: Digital infrastructure has a statistically significant positive effect on project management performance.

H1b: Digital leadership has a statistically significant positive effect on project management performance.

H1c: Employee digital competencies have a statistically significant positive effect on project management performance.

H1d: Digital project management systems have a statistically significant positive effect on project management performance.

H1e: Data-driven decision-making has a statistically significant positive effect on project management performance.

Null Hypothesis

H0: Digital transformation has no statistically significant impact on project management performance in SABIC.

Proposed Variables

For clarity and consistency in the next stages, the study will use the following variables:

Variable Type	Variable
Independent Variable	Digital Transformation

Dimensions of the Independent Variable	Digital Infrastructure, Digital Leadership, Digital Competencies, Digital Project Management Systems, Data-Driven Decision Making
Dependent Variable	Project Management Performance
Performance Indicators	Time Performance, Cost Performance, Quality Performance, Stakeholder Satisfaction, Project Success

7. Research Model

The conceptual framework of this study is based on the assumption that **Digital Transformation** positively influences **Project Management Performance**. Digital transformation is treated as the independent variable and is represented through five key dimensions identified in the contemporary literature. Project management performance is treated as the dependent variable and is measured using the traditional dimensions of project success.

Independent Variable (IV)

Digital Transformation

Dimensions:

- Digital Infrastructure
- Digital Leadership
- Employee Digital Competencies
- Digital Project Management Systems

- Data-Driven Decision Making

Dependent Variable (DV)

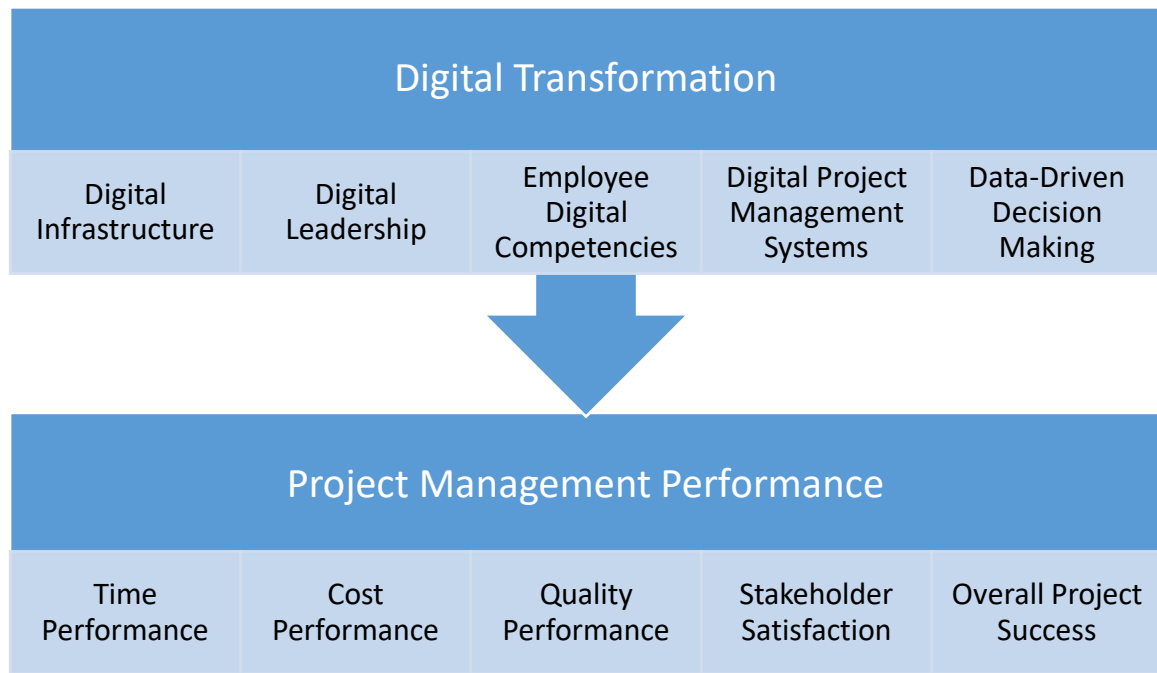
Project Management Performance

Dimensions:

- Time Performance
- Cost Performance
- Quality Performance
- Stakeholder Satisfaction
- Overall Project Success

Figure 1

Conceptual Research Model



Source: Developed by the researcher based on the reviewed literature.

8. Research Methodology

8.1 Research Design

This study adopts a quantitative research approach using a descriptive-correlational research design. The quantitative approach is appropriate because the study seeks to examine the statistical relationship between digital transformation and project management performance by collecting numerical data from employees working at SABIC.

The descriptive aspect enables the researcher to assess the current level of digital transformation implementation and project management performance,

while the correlational aspect examines the influence of digital transformation on project performance.

8.2 Research Strategy

The study employs a cross-sectional survey strategy, whereby data will be collected from respondents at a single point in time using a structured questionnaire.

A survey strategy is suitable because it allows the researcher to collect standardized information from a relatively large number of participants efficiently while facilitating statistical analysis.

8.3 Study Area

The empirical investigation will be conducted within:

Saudi Basic Industries Corporation (SABIC)

Kingdom of Saudi Arabia

The organization was selected because it is one of the largest industrial companies in the Middle East and has implemented comprehensive digital transformation initiatives across engineering, manufacturing, and project management functions.

9. Scope of the Study

Subject Scope

The study focuses on examining the impact of digital transformation practices on project management performance.

Organizational Scope

The study will be conducted among employees working at SABIC who are involved in project-related activities.

Geographical Scope

Kingdom of Saudi Arabia.

Time Scope

The study is expected to be conducted during the 2026 academic year.

10. Population of the Study

The target population consists of employees working at SABIC who participate in project planning, project execution, project monitoring, engineering projects, digital transformation initiatives, and project management activities.

The respondents may include:

- Project Managers
- Project Engineers
- Project Coordinators
- Planning Engineers
- Digital Transformation Specialists
- Department Managers
- Technical Supervisors

These respondents possess practical experience regarding digital transformation and project performance, making them suitable participants for the study.

11. Sample of the Study

Because surveying the entire population is impractical, the study will use a representative sample.

A simple random sampling technique will be employed to provide every eligible employee with an equal opportunity to participate.

The anticipated sample size is approximately 220 respondents.

This sample size is considered adequate for statistical analyses commonly applied in management research, including reliability testing, correlation analysis, regression analysis, and hypothesis testing.

12. Data Collection Methods

The study will use primary and secondary data.

Primary Data

Primary data will be collected through a structured questionnaire distributed electronically to SABIC employees.

The questionnaire will use a five-point Likert Scale.

Scale	Meaning
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Secondary Data

Secondary information will be collected from:

- Peer-reviewed journal articles
- Books
- Conference proceedings
- Government reports
- Saudi Vision 2030 publications
- SABIC annual reports
- Official SABIC sustainability and digital transformation reports

13. Research Instrument

A structured questionnaire will be developed consisting of two sections.

Section A

Demographic Information

Respondents will be asked about:

- Gender
- Age
- Educational qualification
- Years of experience
- Current position
- Department

Section B

Study Variables

Items measuring:

Digital Transformation

- Digital Infrastructure
- Digital Leadership
- Digital Competencies
- Digital Project Management Systems
- Data-Driven Decision Making

Project Management Performance

- Schedule Performance
- Cost Performance
- Quality Performance
- Stakeholder Satisfaction
- Overall Project Success

Each construct will be measured using multiple statements adapted from validated instruments reported in previous academic studies

14. Validity and Reliability

To ensure the quality of the research instrument, the following procedures will be applied.

Content Validity

The questionnaire will be reviewed by academic experts specializing in project management and digital transformation to ensure that each item appropriately measures the intended construct.

Reliability

Internal consistency will be evaluated using **Cronbach's Alpha**.

The generally accepted criterion is:

Cronbach's Alpha	Interpretation
≥ 0.90	Excellent
0.80–0.89	Good
0.70–0.79	Acceptable
< 0.70	Requires Improvement

15. Data Analysis Techniques

The collected data will be analyzed using **IBM SPSS Statistics**.

The following statistical techniques will be employed:

Descriptive Statistics

- Frequencies
- Percentages
- Means
- Standard Deviations

Purpose:

To describe respondents' demographic characteristics and summarize responses.

Reliability Analysis

Cronbach's Alpha

Purpose:

To assess the internal consistency of questionnaire items.

Correlation Analysis

Pearson Correlation Coefficient

Purpose:

To examine the strength and direction of the relationship between digital transformation and project management performance.

Multiple Linear Regression Analysis

Purpose:

To determine the effect of each digital transformation dimension on project management performance and to test the research hypotheses.

A significance level of **0.05** will be adopted for all statistical tests.

16. Ethical Considerations

This study will adhere to recognized ethical standards in academic research.

The following principles will be observed:

- Participation will be entirely voluntary.
- Respondents will be informed of the study's purpose before participating.
- Participants may withdraw at any time without consequence.
- No personal identifying information will be collected unless explicitly required and consented to.
- Responses will remain confidential and used solely for academic purposes.
- All data will be securely stored and accessed only by the researcher.
- Information obtained from respondents will be reported in aggregate form to protect individual privacy.
- All secondary sources will be properly acknowledged using **APA 7th edition** referencing to maintain academic integrity.

17. Chapter 2: Literature Review

17.1 Introduction

The literature review provides the theoretical and empirical foundation for examining the impact of digital transformation on project management performance. It critically reviews previous studies related to digital transformation and project management, discusses the major theories underpinning the study, and identifies research gaps that justify the present investigation. Furthermore, it develops a conceptual understanding of how

digital transformation practices contribute to improving project management performance within industrial organizations such as SABIC.

17.2 Digital Transformation

17.2.1 Definition of Digital Transformation

Digital transformation refers to the strategic integration of digital technologies into all organizational activities to fundamentally improve business processes, enhance operational efficiency, increase organizational agility, and create greater value for customers and stakeholders. Unlike simple digitization, which involves converting information into digital formats, digital transformation requires comprehensive organizational change involving leadership, culture, technology, employee capabilities, and business models.

Scholars describe digital transformation as a continuous process through which organizations leverage technologies such as Artificial Intelligence (AI), Cloud Computing, Big Data Analytics, the Internet of Things (IoT), Blockchain, Robotic Process Automation (RPA), and Enterprise Resource Planning (ERP) systems to improve organizational performance and support innovation.

Within project-oriented organizations, digital transformation facilitates real-time collaboration, improves communication, enhances decision-making, automates routine activities, and enables proactive project monitoring, thereby increasing the likelihood of project success.

17.2.2 Evolution of Digital Transformation

The concept of digital transformation has evolved considerably over the past three decades. Initially, organizations focused primarily on digitizing documents and automating isolated operational activities. As technological capabilities advanced, organizations began integrating enterprise-wide information systems that connected finance, operations, supply chain management, and project management.

The emergence of Industry 4.0 accelerated digital transformation by introducing intelligent technologies capable of collecting, processing, and analyzing massive volumes of organizational data in real time.

Consequently, organizations shifted from technology adoption alone toward complete organizational transformation involving strategy, organizational culture, leadership, workforce capabilities, and customer engagement.

Today, digital transformation is recognized as a strategic organizational capability that supports sustainable competitive advantage rather than merely an information technology initiative.

17.2.3 Dimensions of Digital Transformation

Based on the proposed conceptual framework, this study adopts five dimensions of digital transformation.

A. Digital Infrastructure

Digital infrastructure represents the technological foundation supporting organizational operations. It includes high-speed communication networks, cloud platforms, cybersecurity systems, integrated databases,

ERP systems, digital collaboration platforms, and modern computing infrastructure.

Strong digital infrastructure enables seamless information exchange, improves project visibility, reduces operational delays, and enhances organizational responsiveness.

B. Digital Leadership

Digital leadership refers to the ability of organizational leaders to formulate digital strategies, promote innovation, encourage technological adoption, allocate digital resources effectively, and support organizational change.

Effective digital leaders foster a culture that embraces innovation while reducing employee resistance to technological change.

C. Employee Digital Competencies

Digital competencies encompass employees' knowledge, technical skills, analytical capabilities, and confidence in utilizing digital technologies during project implementation.

Organizations possessing highly competent digital employees generally experience smoother implementation of digital initiatives and higher project performance.

D. Digital Project Management Systems

Digital project management systems include specialized software platforms used to support project planning, scheduling, budgeting, communication, resource allocation, progress monitoring, document management, and risk control.

Examples include Microsoft Project, Oracle Primavera P6, SAP Project Systems, Jira, Monday.com, and Asana.

These systems enhance project visibility, improve collaboration, increase scheduling accuracy, and strengthen project governance.

E. Data-Driven Decision Making

Data-driven decision making refers to the systematic use of organizational data, predictive analytics, dashboards, and business intelligence tools to support project decisions.

Instead of relying solely on managerial intuition, project managers utilize analytical evidence to forecast risks, allocate resources, evaluate project performance, and improve strategic planning.

Organizations that adopt data-driven decision making generally achieve faster responses to project issues and improved project outcomes.

17.3 Project Management Performance

17.3.1 Concept of Project Management Performance

Project management performance refers to the extent to which project objectives are achieved through effective planning, execution, monitoring, and control while satisfying stakeholder expectations.

Traditionally, project performance has been evaluated using the "Iron Triangle," which focuses on completing projects within the planned schedule, budget, and quality standards. However, modern project management literature recognizes broader performance dimensions including stakeholder satisfaction, strategic alignment, organizational learning, sustainability, and long-term value creation.

Project management performance reflects not only the successful completion of individual projects but also the organization's capability to consistently deliver projects that contribute to strategic objectives.

17.3.2 Dimensions of Project Management Performance

This study measures project management performance through five dimensions:

Time Performance

The degree to which projects are completed according to the planned schedule.

Cost Performance

The organization's ability to complete projects within the approved financial budget while minimizing unnecessary expenditures.

Quality Performance

The extent to which project deliverables satisfy predefined technical specifications, organizational standards, and customer requirements.

Stakeholder Satisfaction

The degree of satisfaction experienced by clients, project teams, senior management, contractors, suppliers, and other stakeholders regarding project outcomes.

Overall Project Success

A comprehensive evaluation of project achievements considering operational efficiency, organizational objectives, stakeholder satisfaction, and long-term organizational benefits.

17.4 Theoretical Framework

This study is underpinned by two complementary theories: the Technology–Organization–Environment (TOE) Framework and the Resource-Based View (RBV). These theories explain why organizations adopt digital

transformation and how digital capabilities contribute to improved project management performance.

17.4.1 Technology–Organization–Environment (TOE) Framework

The Technology–Organization–Environment (TOE) Framework, developed by Tornatzky and Fleischer (1990), is one of the most widely used models for explaining organizational technology adoption. According to the framework, an organization's decision to adopt and successfully implement new technologies is influenced by three interrelated contexts:

Technological Context: Refers to the availability, compatibility, complexity, and usefulness of digital technologies such as cloud computing, AI, ERP systems, IoT, and data analytics.

Organizational Context: Includes organizational size, leadership support, employee capabilities, financial resources, organizational culture, and management commitment toward digital transformation.

Environmental Context: Encompasses competitive pressure, customer expectations, government regulations, technological developments, and industry dynamics.

Within SABIC, these three dimensions collectively influence the successful implementation of digital transformation initiatives that ultimately affect project management performance.

The TOE Framework is appropriate for this study because it explains why digital transformation initiatives succeed in some organizations while producing limited results in others.

17.4.2 Resource-Based View (RBV)

The Resource-Based View (RBV), introduced by Barney (1991), argues that organizations achieve sustainable competitive advantage by possessing valuable, rare, inimitable, and non-substitutable (VRIN) resources.

From the RBV perspective, digital transformation represents a strategic organizational capability rather than merely an information technology investment. Resources such as:

- Digital leadership
- Employee digital competencies
- Advanced information systems
- Organizational knowledge
- Data analytics capabilities
- Integrated digital infrastructure

Enable organizations to improve operational efficiency and project performance.

In the context of SABIC, digital transformation capabilities constitute strategic resources that strengthen project planning, execution,

monitoring, communication, and decision-making, thereby improving project management performance.

17.5 Empirical Review of Previous Studies

This section reviews selected recent studies that investigated digital transformation, digital technologies, and project management performance. The review highlights their objectives, methodologies, findings, and limitations while identifying gaps addressed by the present study.

Study One

Verhoef et al. (2021) examined the strategic implications of digital transformation across large organizations.

The study adopted a conceptual approach by reviewing recent literature concerning digital transformation and organizational performance.

The authors concluded that successful digital transformation requires integration of technology, organizational culture, leadership commitment, and employee competencies rather than isolated technological investments. Organizations that adopted comprehensive digital strategies demonstrated higher operational efficiency and greater organizational adaptability.

Relevance to the present study

This study supports the argument that digital transformation extends beyond technological implementation and provides theoretical justification for including digital leadership and employee competencies as dimensions of digital transformation.

Study Two

Vial (2021) investigated how digital transformation influences organizational value creation.

Using an extensive literature review, the study proposed a comprehensive framework illustrating how digital technologies reshape organizational processes, structures, and business models.

The findings indicated that digital transformation improves organizational flexibility, accelerates decision-making, enhances innovation capability, and strengthens organizational performance.

Relevance to the present study

The study provides conceptual support for investigating digital transformation as a multidimensional construct affecting project management performance.

Study Three

Tabesh, Mousavidin, and Hasani (2023) examined the influence of digital capabilities on project performance among industrial organizations.

A quantitative survey was conducted among project managers from manufacturing organizations.

The results demonstrated that organizations possessing stronger digital capabilities experienced higher project success rates, improved communication efficiency, enhanced schedule adherence, and better resource utilization.

Relevance

This study provides empirical evidence supporting the proposed relationship between digital transformation and project management performance.

Study Four

PMI – Pulse of the Profession Report (2024) investigated emerging trends affecting project success globally.

The report highlighted that organizations integrating AI, predictive analytics, cloud collaboration platforms, and digital project management software achieved significantly higher project success rates compared with organizations relying primarily on traditional project management practices.

Furthermore, digitally mature organizations demonstrated superior risk management, improved stakeholder communication, and faster project decision-making.

Relevance

The report reinforces the importance of digital project management systems and data-driven decision-making, both of which are included as dimensions of the independent variable in the present study.

Study Five

OECD Digital Economy Outlook (2024) emphasized that digital transformation has become a fundamental driver of organizational productivity and innovation across both private and public sectors.

The report noted that organizations investing in digital infrastructure and workforce digital competencies consistently outperform organizations with lower levels of digital maturity.

Relevance

The report supports the inclusion of digital infrastructure and employee digital competencies as critical dimensions influencing project management performance.

17.6 Comparison of Previous Studies

Author(s)	Year	Research Focus	Methodology	Key Findings
Verhoef et al.	2021	Digital Transformation Strategy	Literature Review	Digital transformation requires leadership, technology, and organizational change.
Vial	2021	Organizational Digital Transformation	Conceptual Review	Digital transformation enhances organizational value creation.
Tabesh et al.	2023	Digital Capabilities and Project Performance	Quantitative Survey	Digital capabilities significantly improve project performance.
PMI	2024	Digital Project Management	Global Industry Report	Digitally mature organizations achieve higher project success.
OECD	2024	Digital Economy	International Report	Digital competencies improve productivity and innovation.

17.7 Research Gap

Although previous studies have made significant contributions to understanding digital transformation and organizational performance, several important gaps remain.

First, many studies have examined digital transformation at a general organizational level without focusing specifically on project management performance.

Second, most empirical studies have been conducted in Europe, North America, and East Asia, while relatively limited evidence exists within the Saudi Arabian industrial sector.

Third, previous research frequently investigated digital transformation as a single construct without examining the individual influence of digital infrastructure, digital leadership, employee digital competencies, digital project management systems, and data-driven decision-making on project performance.

Fourth, there remains limited empirical evidence concerning the effectiveness of digital transformation initiatives within large Saudi industrial organizations such as SABIC.

Accordingly, the present study addresses these gaps by examining the multidimensional impact of digital transformation on project management performance using SABIC as a case study. The findings are expected to contribute to both academic literature and professional practice by providing evidence relevant to organizations pursuing digital transformation under Saudi Vision 2030.

17.8 Summary of the Literature Review

This chapter reviewed the theoretical and empirical foundations of digital transformation and project management performance. It discussed the concepts, dimensions, and significance of digital transformation, as well as the measures of project management performance. The chapter adopted the Technology–Organization–Environment Framework and the Resource-Based View as the theoretical foundations of the study. It also reviewed recent empirical studies, compared their findings, and identified gaps in the existing literature.

The review indicates that digital transformation has the potential to enhance project management performance by strengthening organizational capabilities, improving communication, supporting data-driven decision-making, and enabling more effective project planning and control. However, there is still a need for empirical evidence from the Saudi industrial sector, particularly within SABIC. This identified gap provides the rationale for the present study and supports the conceptual framework and hypotheses developed in the previous chapter.

18. Chapter 3: Proposed Project Structure

This chapter presents the proposed structure for conducting the research project. It outlines the sequence of activities that will be undertaken to investigate the impact of digital transformation on project management performance at SABIC. The chapter also presents the proposed timetable for completing the study and summarizes the expected outcomes of the research.

18.1 Proposed Project Structure

The project will be completed according to the following stages:

Stage 1: Topic Selection

The researcher selected the topic "The Impact of Digital Transformation on Project Management Performance: A Study of SABIC in Saudi Arabia." The topic was chosen because digital transformation has become one of the most significant strategic initiatives influencing organizational performance and project success, particularly within large industrial organizations.

Stage 2: Literature Review

Relevant books, journal articles, organizational reports, and previous studies will be reviewed to establish the theoretical and conceptual foundation of the research. The literature review provides an understanding of digital transformation, project management performance, theoretical perspectives, and existing research findings while identifying the research gap addressed by this study.

Stage 3: Research Design

A quantitative descriptive-correlational research design will be adopted. A structured questionnaire will be developed to measure digital transformation practices and project management performance among employees working at SABIC.

Stage 4: Data Collection

Primary data will be collected through an online questionnaire distributed to employees involved in project management activities. Secondary data will be obtained from academic publications, official reports, and organizational documents relevant to digital transformation and project management.

Stage 5: Data Analysis

The collected data will be entered into IBM SPSS Statistics for statistical analysis. Descriptive statistics, reliability analysis, Pearson correlation, and multiple regression analysis will be conducted to test the research hypotheses.

Stage 6: Interpretation of Results

The statistical findings will be interpreted according to the research objectives and hypotheses. The results will be compared with previous studies to determine similarities, differences, and practical implications.

Stage 7: Conclusions and Recommendations

The final stage will summarize the principal findings, draw conclusions regarding the impact of digital transformation on project management performance, discuss managerial implications for SABIC, identify study limitations, and provide recommendations for future research.

18.2 Proposed Project Timeline

Activity	Duration
Topic Selection	Week 1
Literature Review	Weeks 2–4
Research Design	Week 5
Questionnaire Development	Week 6
Data Collection	Weeks 7–8
Data Analysis	Weeks 9–10
Discussion of Findings	Week 11
Final Report Writing	Weeks 12–13
Revision and Submission	Week 14

18.3 Expected Outcomes

The study is expected to achieve the following outcomes:

- To determine the current level of digital transformation implementation within SABIC.
- To evaluate the current level of project management performance within the organization.
- To identify the relationship between digital transformation and project management performance.
- To determine which dimensions of digital transformation contribute most significantly to project success.
- To provide practical recommendations that support SABIC and similar industrial organizations in maximizing the benefits of digital transformation.
- To contribute to academic knowledge regarding digital transformation within project-oriented organizations operating in Saudi Arabia.

18.4 Expected Contribution of the Study

The study is expected to contribute to both academic research and professional practice.

Academic Contribution

The research expands the existing body of knowledge by examining the relationship between digital transformation and project management performance within the context of a major Saudi industrial organization. It also provides a conceptual framework that future researchers may apply in similar studies.

Practical Contribution

The findings may assist SABIC in evaluating the effectiveness of its digital transformation initiatives and identifying opportunities to improve project planning, communication, monitoring, resource utilization, and overall project performance.

Furthermore, the recommendations may support managers and decision-makers responsible for digital transformation initiatives within industrial organizations across Saudi Arabia.

19. Conclusion

Digital transformation has emerged as one of the most influential drivers of organizational competitiveness and project success in the modern business environment. As organizations increasingly rely on advanced digital technologies to improve operational efficiency and strategic decision-making, understanding the relationship between digital transformation and project management performance has become increasingly important.

This study proposes to investigate this relationship by examining SABIC as a case study within the Saudi industrial sector. Through the adoption of a quantitative research approach, the study seeks to determine the extent to which digital transformation practices contribute to improving project planning, execution, monitoring, communication, and overall project success.

The findings are expected to provide valuable theoretical and practical insights for researchers, project managers, and organizational leaders seeking to maximize the benefits of digital transformation while improving project management performance. Ultimately, the study aims to support

organizational excellence and contribute to the successful realization of Saudi Arabia's Vision 2030 through enhanced digital capabilities and effective project management.

20. References (APA 7th Edition)

Barney, J. (1991). *Firm resources and sustained competitive advantage*. *Journal of Management*, 17(1), 99–120.

Project Management Institute. (2021). *A guide to the project management body of knowledge (PMBOK® Guide)* (7th ed.). Project Management Institute.

Project Management Institute. (2024). *Pulse of the Profession 2024*. Project Management Institute.

SABIC. (2024). *Annual Report 2024*. Saudi Basic Industries Corporation.

Tornatzky, L. G., & Fleischer, M. (1990). *The processes of technological innovation*. Lexington Books.

Verhoef, P. C., Broekhuizen, T., Bart, Y., et al. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901.

Vial, G. (2021). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 30(2).