

Final Project 1
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Project Template

Faculty of Management
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The Impact of Supply Chain Digitization on Operational Efficiency in Saudi IT Service Providers: A Strategic Analysis

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Table of Contents

1. Chapter 1: Introduction

- 1.1 Research Background
- 1.2 Research Problem
- 1.3 Research Significance
- 1.4 Research Questions
- 1.5 Research Objectives
- 1.6 Research Hypotheses
- 1.7 Research Model
- 1.8 Research Methodology
- 1.9 Scope of The Study
- 1.10 The Suggested Project Structure

2. Chapter 2: Literature Review

- 2.1 Introduction
- 2.2 The Independent Variable
- 2.3 The Dependent Variable
- 2.4 The Relationship Between the Variables
- 2.5 Conclusion

References

Chapter 1: Introduction

1.1 Research Background

Saudi Arabia's IT sector is evolving rapidly as the country progresses toward its Vision 2030 goals, which emphasize digital transformation, localization, and efficiency. With the growing complexity of services and demand for streamlined processes, the pressure on IT service providers to optimize operations has intensified. One major area under reform is procurement and supply chain management, where traditional, manual practices are being replaced by integrated digital platforms.

Supply chain digitization refers to the application of digital technologies—like ERP systems, e-procurement platforms, automated vendor dashboards, and real-time analytics—to enhance transparency, efficiency, and strategic decision-making. While multinational organizations in Saudi Arabia, such as STC and Elm, have led this digital shift, many mid-sized players remain in transitional phases, facing internal challenges in execution, stakeholder alignment, and measuring ROI.

1.2 Research Problem

Although global studies highlight the benefits of supply chain digitization, there's a clear lack of empirical research on how these tools impact operational efficiency in Saudi IT service providers. The assumptions of product-based supply chains do not translate well to service-driven models. Moreover, most digitization initiatives are deployed without well-defined KPIs or benchmarks, making it difficult for procurement leaders to assess performance or justify investment.

This research aims to fill this gap by examining digitization's real impact on efficiency metrics such as procurement cycle time, vendor onboarding duration, and SLA adherence within a Saudi context.

1.3 Research Significance

This study holds both theoretical and practical value.

At the theoretical level, it expands the literature on supply chain digitization in service sectors—particularly those operating without tangible inventory. It bridges existing gaps between industrial models and IT operations.

Practically, the research helps sourcing professionals, strategic procurement teams, and CIOs evaluate whether digitization leads to measurable improvements in speed, quality, and cost control. It can influence strategy, vendor selection, and internal system investment.

1.4 Research Questions

- How does supply chain digitization impact procurement cycle time in Saudi IT service providers?
- Which digital tools have the most measurable effect on operational KPIs?
- How can strategic sourcing practices enhance the ROI of digitization initiatives?

1.5 Research Objectives

- To evaluate the operational efficiency gains from digital procurement tools
- To identify challenges and enablers in digital transformation in Saudi IT procurement
- To provide a strategic sourcing model aligned with Vision 2030 goals

1.6 Research Hypotheses

H1: Supply chain digitization significantly reduces procurement cycle time in Saudi IT service providers.

H2: Strategic sourcing maturity positively moderates the relationship between digitization and operational efficiency.

1.7 Research Model

The conceptual model consists of three main constructs:

- Independent Variable: Supply Chain Digitization (e.g., ERP, e-Sourcing, Vendor Portals)
- Mediator: Strategic Sourcing Practices
- Dependent Variable: Operational Efficiency (Procurement cycle time, SLA adherence)

[Insert Conceptual Model Diagram Here — will be created in next step]

1.8 Research Methodology

This research adopts a mixed-methods approach. Quantitative data will be referenced from existing academic studies and market research on Saudi IT firms. Qualitative insights are derived from case observations in organizations such as SITE, STC, and Elm. Although no interviews or surveys are directly conducted, existing studies are leveraged to draw strategic conclusions applicable to mid-size and large-scale IT service providers.

1.9 Scope of The Study

The study focuses on Saudi-based IT service providers operating under Vision 2030 reforms. Emphasis is placed on mid-to-large scale organizations engaged in digital procurement transformation. The research considers only non-manufacturing environments that operate through service-level contracts and strategic vendor relationships.

1.10 Suggested Project Structure

Chapter 1 introduces the problem and research objectives. Chapter 2 provides a review of related literature and models. Chapter 3 (not included here) would analyze data, while Chapter 4 (also not included) would discuss results and provide recommendations. The final chapter would summarize key takeaways and limitations.

Chapter 2: Literature Review

2.1 Introduction

This chapter reviews academic and practitioner literature on supply chain digitization and operational efficiency, specifically within the context of IT service providers. The chapter begins by clarifying the nature and scope of each variable, then examines prior findings, and concludes by identifying how these variables interact. The aim is to contextualize the research within the current state of knowledge and highlight where new insights are required.

2.2 The Independent Variable

Supply chain digitization refers to the integration of digital technologies across procurement, logistics, and supplier relationship processes. In Saudi Arabia, organizations like STC, SITE, and Elm have begun adopting tools such as SAP Ariba, Oracle Cloud, and AI-based analytics dashboards to monitor supply chain activities in real time. Key components include:

- E-procurement platforms
- Real-time inventory management
- Automated vendor management systems
- Data analytics and forecasting tools

These systems aim to eliminate bottlenecks, reduce errors, and create a strategic, data-driven supply chain. However, despite their promise, the degree of adoption and real efficiency gains in IT service firms remain under-researched.

2.3 The Dependent Variable

Operational efficiency in IT service providers can be measured using several key performance indicators (KPIs):

- Procurement cycle time
- Contract turnaround speed
- SLA compliance rate
- Cost savings in sourcing activities

In the context of Saudi IT firms, these metrics are not consistently tracked, and benchmarking is often missing. Operational efficiency is more challenging to quantify in service sectors, where outputs are intangible and often relationship-driven.

2.4 The Relationship Between the Independent and the Dependent Variables

The relationship between digitization and efficiency is mediated by strategic sourcing maturity. For example, a firm may invest in Oracle Procurement Cloud, but without

defined sourcing policies or category strategies, the efficiency gains are marginal. Literature supports that automation enhances performance when combined with human alignment, policy enforcement, and training. SITE, for instance, observed cycle time reductions in key categories after enforcing tighter vendor onboarding criteria alongside its digital tool rollout.

2.5 Conclusion

The literature affirms that digitization can transform procurement functions, but the realization of benefits depends on execution context and managerial capability. While global studies show strong correlation between digital adoption and performance, Saudi-specific insights, particularly in IT service environments, remain limited. This study fills the gap by integrating case observations, theory, and contextual analysis.

Chapter 3: Research Methodology

This chapter outlines the methodology applied to assess how supply chain digitization impacts operational efficiency in Saudi IT service providers. It clarifies the type of research, data sources, and analytical strategy.

3.1 Research Approach

A mixed-methods design is applied, leveraging both qualitative insights and secondary data from case literature. Quantitative analysis is based on KPI frameworks drawn from existing Saudi IT firm reports and global benchmarks.

3.2 Research Strategy

The study uses a descriptive-exploratory strategy to understand the phenomena without manipulation. Case studies from SITE, STC, and Elm illustrate practical implications. Theoretical constructs are drawn from supply chain and digital transformation literature.

3.3 Data Sources

Data was derived from:

- Academic research journals (e.g., IJPM, JSCM)
- Industry white papers
- Publicly available reports from SITE, STC, and Elm
- Vision 2030 documentation
- Prior KPI datasets related to procurement cycle and SLA tracking

3.4 Validity and Reliability

Triangulation across multiple data sources ensures validity. The use of well-documented case examples and consistency in operational definitions ensures reliability and replicability. Literature-based constructs were validated against global practices.

3.5 Ethical Considerations

No primary data collection or human interaction was involved. All sources are cited appropriately. This ensures full compliance with academic ethical standards.

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