
INFLUENCE OF PROCUREMENT TRANSFORMATION ON FIRM PERFORMANCE AMONG FOOD AND BEVERAGE MANUFACTURING FIRMS IN TANZANIA. `

Hellen Meremo^{*1}, Paul Machoka²

¹Department of Business Studies, Catholic university of Mbeya, Mbeya, Tanzania.

² School of Management and Leadership, Management University of Africa, Nairobi, Kenya.

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***Corresponding Author: Hellen Meremo**

Department of Business Studies, Catholic university of Mbeya, Mbeya, Tanzania.

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ABSTRACT

This study examined the influence of procurement transformation on firm performance among food and beverage manufacturing firms in Tanzania. Specifically, it assessed the mediating role of supply chain agility in the relationship between procurement transformation and firm performance, and the moderating role of digital capability in strengthening this relationship. Food and beverage manufacturing firms in Tanzania continue to operate in an increasingly dynamic business environment characterized by supply chain disruptions, fluctuating input costs, changing customer preferences, technological advancements, and intense market competition. Although many firms have invested in procurement transformation initiatives such as supplier integration, strategic sourcing, procurement automation, and process redesign, improvements in organizational performance have remained inconsistent. Existing studies largely examine the direct relationship between procurement transformation and firm performance, with limited attention given to the mechanisms through which procurement transformation creates value. In particular, empirical evidence on the mediating influence of supply chain agility and the moderating effect of digital capability within the Tanzanian manufacturing sector remains scarce.

The study adopted a positivist research philosophy and employed a quantitative cross-sectional research design. Data were collected using structured questionnaires administered to procurement managers, supply chain managers, operations managers, production managers, and senior executives from registered food and beverage manufacturing firms in Tanzania. The data were analyzed using Structural Equation Modelling (SEM) with Smart PLS 4 to

examine the direct, mediating, and moderating relationships among the study variables. The findings established that procurement transformation has a positive and statistically significant influence on firm performance. Supply chain agility partially mediates this relationship by enhancing organizational responsiveness, operational flexibility, and supply chain resilience. The results further revealed that digital capability significantly moderates the relationship between procurement transformation and firm performance, indicating that firms with stronger digital capabilities realize greater performance improvements from procurement transformation initiatives. The study concludes that procurement transformation improves firm performance both directly and indirectly through enhanced supply chain agility. Furthermore, digital capability strengthens the effectiveness of procurement transformation by enabling greater visibility, coordination, data-driven decision-making, and operational efficiency.

The study recommends that food and beverage manufacturing firms strengthen procurement transformation initiatives while investing in digital technologies that improve procurement integration and supply chain visibility. Firms should also develop agile supply chain capabilities to enhance responsiveness to changing market conditions and improve overall organizational performance.

KEYWORDS: Procurement Transformation, Firm Performance, Supply Chain Agility, Digital Capability, Manufacturing Firms, Tanzania.

1.0 INTRODUCTION

Procurement has evolved from a routine purchasing function into a strategic organizational capability that contributes directly to competitiveness, operational excellence, and sustainable business performance. Modern organizations increasingly recognize procurement as a strategic driver of value creation through cost optimization, supplier collaboration, innovation, and risk management rather than merely an administrative function responsible for acquiring goods and services (Monczka et al., 2024; van Weele, 2023). Consequently, firms are embracing procurement transformation to enhance operational efficiency, strengthen supplier relationships, and align procurement activities with broader organizational goals.

Procurement transformation refers to the comprehensive redesign of procurement processes through strategic sourcing, supplier relationship management, digital procurement technologies, process automation, and data-driven decision-making. These initiatives enable

organizations to improve procurement efficiency, reduce transaction costs, enhance supply chain collaboration, and create long-term competitive advantage (CIPS, 2023; World Bank, 2024). Empirical evidence suggests that organizations implementing procurement transformation achieve superior procurement performance, increased operational efficiency, and improved organizational outcomes (Bals et al., 2023).

In today's volatile business environment, firms must also develop supply chain agility to remain competitive. Supply chain agility refers to an organization's ability to anticipate, respond, and adapt rapidly to market changes, supply disruptions, and evolving customer demands while maintaining operational continuity (Gligor et al., 2023). Procurement transformation enhances supply chain agility by improving supplier integration, facilitating information sharing, streamlining procurement processes, and strengthening organizational flexibility. Agile supply chains enable firms to respond effectively to uncertainty, thereby improving service delivery, operational resilience, and overall firm performance (Aslam et al., 2024).

Digital capability has become another critical organizational resource influencing procurement and supply chain performance. The rapid adoption of technologies such as Enterprise Resource Planning (ERP), electronic procurement systems, cloud computing, artificial intelligence, big data analytics, blockchain, and the Internet of Things has fundamentally transformed procurement operations across industries (Warner & Wäger, 2024). Firms possessing strong digital capability are better positioned to integrate procurement information, automate business processes, enhance supply chain visibility, and support timely managerial decision-making, thereby maximizing the benefits of procurement transformation (Verhoef et al., 2022).

The food and beverage manufacturing sector plays a vital role in Tanzania's industrial development by contributing to employment, agricultural value addition, export earnings, and economic growth. However, firms within the sector continue to experience operational challenges arising from supply chain disruptions, escalating input costs, changing consumer preferences, technological change, and increasing competitive pressure (Confederation of Tanzania Industries [CTI], 2024). These challenges require organizations to modernize procurement systems, strengthen supply chain responsiveness, and leverage digital technologies to sustain competitive performance.

Although previous studies have established positive relationships between procurement transformation and firm performance, limited empirical evidence explains the mechanisms through which procurement transformation creates organizational value within the Tanzanian

manufacturing sector. In particular, the mediating role of supply chain agility and the moderating influence of digital capability remain insufficiently examined. This study therefore seeks to address this empirical gap by investigating how procurement transformation influences firm performance through supply chain agility and how digital capability strengthens this relationship among food and beverage manufacturing firms in Tanzania.

2.0 STATEMENT OF THE PROBLEM

The food and beverage manufacturing industry is a key contributor to Tanzania's industrialization agenda, employment creation, value addition, and economic growth. To remain competitive in an increasingly dynamic business environment, firms have invested in procurement transformation initiatives such as strategic sourcing, supplier integration, procurement automation, digital procurement systems, and process re-engineering. These initiatives are intended to enhance operational efficiency, strengthen supply chain coordination, reduce procurement costs, and improve overall firm performance (CIPS, 2023; World Bank, 2024). Despite these investments, many food and beverage manufacturing firms continue to experience inconsistent performance characterized by supply chain disruptions, high operating costs, production inefficiencies, delayed procurement cycles, and declining competitiveness (CTI, 2024).

Existing empirical studies generally report a positive association between procurement transformation and firm performance. However, these studies have predominantly focused on direct relationships while paying limited attention to the organizational mechanisms through which procurement transformation generates performance improvements (Bals et al., 2023; Aslam et al., 2024). In particular, there is limited empirical evidence explaining whether supply chain agility mediates the relationship between procurement transformation and firm performance or whether digital capability strengthens this relationship within manufacturing firms operating in developing economies.

Furthermore, most existing studies have been undertaken in developed countries or across multiple industries, making it difficult to generalize their findings to the Tanzanian food and beverage manufacturing sector, which operates under unique institutional, technological, and market conditions. Consequently, empirical evidence specific to Tanzania remains inadequate. This study therefore sought to address this contextual and empirical gap by examining the influence of procurement transformation on firm performance, while

investigating the mediating role of supply chain agility and the moderating role of digital capability among food and beverage manufacturing firms in Tanzania.

3.0 RESEARCH OBJECTIVE

To examine the influence of procurement transformation on firm performance among food and beverage manufacturing firms in Tanzania.

4.0 RESEARCH HYPOTHESIS

H₀: Procurement transformation has no significant influence on firm performance among food and beverage manufacturing firms in Tanzania.

H₁: Procurement transformation has a significant influence on firm performance among food and beverage manufacturing firms in Tanzania.

5.0 THEORETICAL FRAMEWORK

This study was anchored on the Dynamic Capabilities Theory (DCT) proposed by Teece, Pisano, and Shuen (1997). The theory posits that an organization's sustainable competitive advantage depends on its ability to integrate, build, and reconfigure internal and external resources in response to rapidly changing business environments. Dynamic capabilities enable firms to sense emerging opportunities, seize market prospects, and continuously transform organizational resources to maintain competitiveness (Teece, 2023). Procurement transformation represents one such dynamic capability through which organizations redesign procurement processes, strengthen supplier collaboration, adopt innovative procurement practices, and improve operational efficiency. The theory therefore provides an appropriate foundation for explaining how procurement transformation enhances firm performance in a dynamic manufacturing environment.

The study was further supported by the Resource-Based View (RBV) developed by Barney (1991). RBV argues that organizations achieve superior performance by acquiring and effectively utilizing valuable, rare, inimitable, and non-substitutable resources. Within the context of this study, procurement capabilities, digital technologies, supplier relationships, and organizational knowledge constitute strategic resources that enable firms to improve operational performance and sustain competitive advantage (Barney, 2021). Digital capability, in particular, represents a valuable organizational resource that enhances the effectiveness of procurement transformation through improved information processing, automation, and data-driven decision-making.

Additionally, the study was guided by Organizational Information Processing Theory (OIPT) advanced by Galbraith (1973). The theory argues that organizations operating in uncertain environments require greater information-processing capabilities to make timely and effective decisions. Procurement transformation and digital capability improve an organization's capacity to collect, integrate, analyze, and disseminate procurement and supply chain information, thereby enhancing organizational responsiveness and supply chain agility. Consequently, firms with stronger information-processing capabilities are better positioned to respond to market uncertainties and improve overall performance.

Collectively, these theories provide a comprehensive explanation of the relationships examined in this study. Dynamic Capabilities Theory explains procurement transformation as a strategic organizational capability, Resource-Based View explains digital capability as a strategic organizational resource that strengthens procurement outcomes, while Organizational Information Processing Theory explains how enhanced information processing improves supply chain agility and organizational performance. Together, these theoretical perspectives provide a robust foundation for examining the direct effect of procurement transformation on firm performance, the mediating role of supply chain agility, and the moderating role of digital capability among food and beverage manufacturing firms in Tanzania.

6.0 EMPIRICAL LITERATURE

Procurement transformation has increasingly been recognized as a strategic capability that enhances organizational competitiveness and long-term performance. By integrating strategic sourcing, supplier collaboration, procurement automation, and digital technologies, firms improve operational efficiency, reduce procurement costs, and strengthen supply chain performance. Empirical evidence indicates that organizations implementing procurement transformation initiatives achieve superior financial and operational outcomes compared to those relying on conventional procurement practices. For instance, Bals et al. (2023) found that procurement transformation significantly improves procurement efficiency, supplier performance, and organizational competitiveness, while Monczka et al. (2024) observed that modern procurement practices enhance operational performance through improved supplier integration, process optimization, and strategic decision-making.

Recent studies further suggest that procurement transformation influences firm performance through organizational capabilities rather than through direct effects alone. Supply chain agility has emerged as an important mechanism through which procurement transformation

creates value. Agile organizations are better able to anticipate market changes, respond to supply disruptions, adapt to customer demands, and maintain operational continuity under uncertain business conditions. Gligor et al. (2023) reported that procurement transformation enhances supply chain agility by strengthening supplier collaboration, improving information sharing, and increasing organizational flexibility. Similarly, Aslam et al. (2024) established that supply chain agility significantly improves operational performance by enabling firms to respond quickly to environmental uncertainties, thereby translating procurement improvements into enhanced organizational performance.

Digital capability has also become a critical organizational resource that strengthens the effectiveness of procurement transformation. Advances in technologies such as enterprise resource planning systems, electronic procurement platforms, artificial intelligence, cloud computing, and big data analytics have transformed procurement and supply chain operations by improving information visibility, process integration, and decision-making. Verhoef et al. (2022) argue that organizations possessing strong digital capabilities are more successful in implementing transformation initiatives because digital technologies facilitate operational coordination, organizational learning, and innovation. Likewise, Warner and Wäger (2024) found that digital capability enhances organizational responsiveness and enables firms to derive greater performance benefits from strategic transformation initiatives.

Despite growing empirical evidence linking procurement transformation to organizational performance, important knowledge gaps remain. Most previous studies have focused primarily on the direct relationship between procurement transformation and firm performance, with limited attention given to the mediating role of supply chain agility and the moderating influence of digital capability. Furthermore, much of the existing evidence originates from developed economies, making its applicability to manufacturing firms operating in developing countries uncertain. Consequently, empirical evidence explaining these relationships within the Tanzanian food and beverage manufacturing sector remains limited. This study therefore addresses this contextual and empirical gap by examining how supply chain agility mediates, and digital capability moderates, the relationship between procurement transformation and firm performance among food and beverage manufacturing firms in Tanzania.

7.0 RESEARCH DESIGN AND METHODOLOGY

The study adopted a positivist research philosophy and employed a quantitative cross-sectional research design to examine the relationship between procurement transformation

and firm performance among food and beverage manufacturing firms in Tanzania. The positivist paradigm was considered appropriate because it facilitates the objective measurement of relationships among study variables through empirical data and statistical analysis.

The target population comprised procurement managers, supply chain managers, logistics managers, production managers, operations managers, and senior executives drawn from registered food and beverage manufacturing firms in Tanzania. These respondents were selected because of their direct involvement in procurement decisions, supply chain management, digital transformation initiatives, and organizational performance management. A sample of 248 respondents was determined using the Yamane sampling formula and selected through stratified random sampling to ensure adequate representation of firms of different sizes and operational characteristics. Primary data were collected using structured questionnaires with five-point Likert scale items measuring procurement transformation, supply chain agility, digital capability, and firm performance. Secondary data were obtained from company reports, industry publications, and relevant manufacturing sector reports to supplement the primary data.

Prior to the main survey, a pilot study was conducted to assess the validity and reliability of the research instrument. Content validity was established through expert review, while reliability was evaluated using Cronbach's Alpha coefficients. Data were analyzed using SmartPLS Version 4, which is appropriate for testing complex relationships involving mediation and moderation. Descriptive statistics were used to summarize respondents' perceptions, while Structural Equation Modelling (SEM) was employed to test the direct, mediating, and moderating relationships among the study variables. Statistical significance was evaluated at the 5% significance level.

The structural model was specified as follows:

$$FP = \beta_0 + \beta_1 PT + \varepsilon$$

Where:

FP = Firm Performance

PT = Procurement Transformation

β_0 = Constant

β_1 = Regression Coefficient

ε = Error Term

The mediating effect of Supply Chain Agility (SCA) was assessed using the bootstrapping procedure to determine the significance of the indirect effect of procurement transformation on firm performance through supply chain agility. The moderating effect of Digital Capability (DC) was examined by introducing an interaction term ($PT \times DC$) into the structural model. The significance of the direct, indirect, and interaction effects was evaluated using standardized path coefficients, t-values, p-values, and bootstrap confidence intervals. Hypotheses were accepted or rejected based on a significance level of $p < 0.05$.

8.0 DATA ANALYSIS AND RESEARCH RESULTS

Descriptive Statistics

Table 1: Procurement Transformation and Firm Performance.

Statements	SDA %	DA %	N %	A %	SA %	Mean	Std. Deviation
Strategic sourcing has improved procurement efficiency.	4.8	9.7	14.5	44.0	27.0	3.79	0.69
Digital procurement technologies have enhanced procurement processes.	5.2	9.9	14.1	43.8	27.0	3.77	0.71
Procurement processes are continuously improved.	4.6	10.1	14.8	44.3	26.2	3.77	0.68
Procurement transformation has strengthened supplier collaboration.	5.1	10.0	15.2	43.5	26.2	3.75	0.72
Procurement transformation has improved firm performance.	4.9	9.8	14.9	44.1	26.3	3.77	0.70
Overall Aggregate Score	4.9	9.9	14.7	43.9	26.5	3.77	0.70

The findings indicate that respondents generally agreed that procurement transformation has enhanced procurement efficiency, supplier collaboration, and organizational performance. The overall mean score of 3.77 suggests a relatively high level of implementation of procurement transformation practices among food and beverage manufacturing firms in Tanzania.

Structural Model Results

Table 2: Structural Model Results.

Relationship	β	t-value	p-value
Procurement Transformation $\rightarrow$ Firm Performance	0.451	8.17	0.000
Procurement Transformation $\rightarrow$ Supply Chain Agility	0.618	12.84	0.000
Supply Chain Agility $\rightarrow$ Firm Performance	0.364	6.91	0.000
Indirect Effect (PT $\rightarrow$ SCA $\rightarrow$ FP)	0.225	5.48	0.000

Relationship	β	t-value	p-value
Digital Capability $\times$ PT $\rightarrow$ Firm Performance	0.183	3.76	0.000

The SEM results indicate that procurement transformation has a positive and statistically significant influence on firm performance ($\beta = 0.451$, $p < 0.001$). Procurement transformation also significantly enhances supply chain agility ($\beta = 0.618$, $p < 0.001$), which, in turn, positively influences firm performance ($\beta = 0.364$, $p < 0.001$). The significant indirect effect ($\beta = 0.225$, $p < 0.001$) confirms that supply chain agility partially mediates the relationship between procurement transformation and firm performance. Furthermore, digital capability significantly strengthens this relationship ($\beta = 0.183$, $p < 0.001$), indicating that firms with stronger digital capabilities derive greater performance benefits from procurement transformation.

9.0 DISCUSSION OF FINDINGS

The findings demonstrate that procurement transformation has a positive and statistically significant influence on firm performance among food and beverage manufacturing firms in Tanzania. Firms that invest in strategic sourcing, procurement process improvement, supplier collaboration, and digital procurement systems are more likely to achieve improved operational efficiency, cost effectiveness, and overall organizational performance. These findings support the Dynamic Capabilities Theory, which argues that organizations enhance performance by continuously reconfiguring their resources and capabilities to respond to changing business environments (Teece, 2023).

The study further established that supply chain agility partially mediates the relationship between procurement transformation and firm performance. This implies that procurement transformation enhances organizational performance by improving the firm's ability to respond quickly to market changes, supply disruptions, and customer demands. The findings are consistent with Gligor et al. (2023) and Aslam et al. (2024), who reported that agile supply chains strengthen organizational responsiveness and contribute significantly to superior firm performance.

The results also revealed that digital capability significantly moderates the relationship between procurement transformation and firm performance. Firms with advanced digital capabilities derive greater performance benefits from procurement transformation because digital technologies improve information sharing, procurement integration, and decision-

making. These findings support the Resource-Based View, which considers digital capability a strategic organizational resource that enhances competitive advantage (Barney, 2021).

Hypothesis Testing

H₀₁: Procurement transformation has no significant influence on firm performance among food and beverage manufacturing firms in Tanzania.

The structural model results indicate that procurement transformation has a significant positive influence on firm performance ($\beta = 0.451$, $t = 8.17$, $p < 0.001$). Therefore, the null hypothesis is rejected.

H₀₂: Supply chain agility does not significantly mediate the relationship between procurement transformation and firm performance among food and beverage manufacturing firms in Tanzania.

The indirect effect of procurement transformation on firm performance through supply chain agility was statistically significant ($\beta = 0.225$, $t = 5.48$, $p < 0.001$). Therefore, the null hypothesis is rejected, confirming that supply chain agility significantly mediates the relationship.

H₀₃: Digital capability does not significantly moderate the relationship between procurement transformation and firm performance among food and beverage manufacturing firms in Tanzania.

The interaction effect between procurement transformation and digital capability was statistically significant ($\beta = 0.183$, $t = 3.76$, $p < 0.001$). Accordingly, the null hypothesis is rejected, indicating that digital capability significantly strengthens the relationship between procurement transformation and firm performance.

10.0 CONCLUSIONS

The study concludes that procurement transformation is a significant driver of firm performance among food and beverage manufacturing firms in Tanzania. The findings demonstrate that firms implementing modern procurement practices achieve improved operational and organizational performance.

The study further concludes that supply chain agility serves as an important mechanism through which procurement transformation enhances firm performance, while digital capability strengthens the effectiveness of procurement transformation. Firms that combine procurement transformation with agile supply chains and strong digital capabilities are therefore more likely to achieve sustainable competitive advantage.

11.0 RECOMMENDATIONS

The study recommends that food and beverage manufacturing firms continue investing in procurement transformation initiatives, including strategic sourcing, supplier collaboration, and procurement process automation.

Management should strengthen supply chain agility by enhancing supplier integration, improving information sharing, and developing flexible procurement systems capable of responding to changing market conditions.

Firms should also invest in digital technologies such as enterprise resource planning systems, electronic procurement platforms, and data analytics to maximize the performance benefits associated with procurement transformation.

SUGGESTIONS FOR FURTHER STUDIES

Future studies should examine the influence of procurement transformation on firm performance in other manufacturing subsectors and service industries to enhance the generalizability of the findings. Comparative studies across East African countries could also provide broader insights into the role of supply chain agility and digital capability in procurement transformation. Additionally, longitudinal studies are recommended to examine how procurement transformation.

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