

Assessment of the Factors Influencing Warehouse Performance in Manufacturing Companies: Evidence from Tanzania Breweries Limited

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Abstract

This study assessed the factors influencing warehouse performance in Tanzania's manufacturing industry, using Tanzania Breweries Limited (TBL) as a case study. Specifically, the study examined the influence of technological integration practices, staff competence, and inventory management practices on warehouse performance. The study was guided by the Resource-Based View (RBV) theory, which emphasizes the importance of organizational resources and capabilities in achieving improved performance. The study adopted a positivist research philosophy and a deductive approach, using a quantitative descriptive research design. Data were collected through structured questionnaires administered to employees involved in warehouse and logistics operations at TBL. A sample of 96 respondents was used. Data were analyzed using descriptive statistics, correlation analysis, and multiple regression analysis using IBM SPSS version 24. The research instrument was reliable, with Cronbach's Alpha coefficients ranging from 0.740 to 0.840. The findings reveal that technological integration practices have a significant positive relationship with warehouse performance ($r = 0.482$, $p < 0.001$) and make a significant positive contribution to performance ($\beta = 0.349$, $p < 0.001$). Staff competence demonstrates the strongest relationship with warehouse performance ($r = 0.597$, $p < 0.001$) and is the strongest predictor in the regression model ($\beta = 0.520$, $p < 0.001$). Inventory management practices also have a significant positive relationship with warehouse performance ($r = 0.458$, $p < 0.001$) and contribute significantly to warehouse performance ($\beta = 0.422$, $p < 0.001$). The overall regression model is statistically significant, $F(3,92) = 62.808$, $p < 0.001$, with $R^2 = 0.672$, indicating that the three factors jointly explain 67.2% of the variation in warehouse performance. The study concludes that technological integration, staff competence, and inventory management are important organizational resources and capabilities for improving warehouse performance at TBL. The findings support the Resource-Based View by showing that effectively combining and using technological, human, and inventory-related resources can enhance warehouse performance. The study recommends strengthening employee training and motivation, improving the integration and utilization of warehouse technologies, and enhancing inventory planning, stock rotation, forecasting, and control practices.

Keywords: Warehouse performance; technological integration; staff competence; inventory management

1. Introduction

Warehousing has evolved from a traditional storage function into an important component of modern supply-chain and manufacturing operations. Contemporary warehouses are expected

not only to store materials and finished products but also to support inventory accuracy, order fulfillment, timely distribution, cost management, and overall supply-chain responsiveness. Consequently, warehouse performance has become increasingly important for organizations seeking to improve operational efficiency and remain competitive in changing market environments (Winkelhaus & Grosse, 2022).

Technological development has further transformed warehouse operations. Enterprise Resource Planning (ERP), Electronic Data Interchange (EDI), Warehouse Management Systems (WMS), automation, and analytical tools enable organizations to improve information sharing, streamline processes, and support operational decision-making. Yousefi and Alibabaei (2015) associate technology integration with improved workflow efficiency and information sharing, while Wang et al. (2016) emphasize technology's contribution to real-time information visibility, inventory control, and operational responsiveness. Thus, technological integration represents an increasingly important component of effective warehouse management.

However, the availability of technological systems does not necessarily guarantee improved warehouse performance. The effective utilization of technology depends partly on the capabilities of employees responsible for operating warehouse systems and implementing operational procedures. Staff competence encompasses the knowledge, skills and abilities required to perform warehouse activities effectively, including technical skills, problem-solving and communication capabilities (Johnson & McGinnis, 2008). Competent employees are particularly important in technology-enabled warehouse environments because they are required to operate systems, interpret information, follow procedures and respond to operational challenges.

Inventory management represents another important dimension of warehouse performance. Inventory management involves controlling inventory levels, orders, storage and stock turnover while maintaining an appropriate balance between supply and demand. Effective inventory management requires accurate forecasting, timely replenishment and appropriate stock categorization, which can contribute to reduced inventory costs, fewer stock discrepancies and improved service levels (Sabry, 2015). Contemporary warehouse management also emphasizes inventory visibility and timely monitoring as mechanisms for improving responsiveness and reducing operational inefficiencies (Winkelhaus & Grosse, 2022).

The importance of these factors is particularly evident in manufacturing organizations, where warehouse activities support the movement of materials, production inputs and finished products. Effective warehouse management can therefore influence the efficiency of production and distribution activities. In the Tanzanian context, however, modern warehouse management and systematic performance measurement remain relatively underdeveloped. The report notes that documented evidence concerning how warehouse performance is assessed in practice in Tanzania remains limited (GHSC-PSM, 2021; Kisinga et al., 2024).

Tanzania Breweries Limited (TBL) provides an important context for examining these issues. The report indicates that warehouse management at TBL has historically relied substantially on traditional warehousing practices, while contemporary warehouse-management literature emphasizes technology-enabled operational governance, defined performance indicators and structured workflows (Mangal, 2013; Winkelhaus & Grosse, 2022). This context creates a need to examine the organizational resources and capabilities associated with warehouse performance at TBL.

The Resource-Based View (RBV) provides a useful theoretical perspective for examining these relationships. The RBV argues that differences in organizational performance can be

partly explained by differences in the resources and capabilities organizations control and use (Barney, 1991; Wernerfelt, 1984). Within warehouse operations, technological integration can be considered a technological resource, staff competence a human capability, and inventory management an organizational capability. The value of these resources may depend not only on their availability but also on the organization's ability to combine and deploy them effectively.

2. Literature Review

2.1 Theoretical Foundation

The study was guided by the Resource-Based View of the firm. Wernerfelt's resource-based perspective and Barney's subsequent development of RBV emphasize the importance of firm-specific resources and capabilities in explaining differences in organizational performance.

The RBV is relevant because warehouse performance is not determined solely by external market conditions. Internal resources, including technology, employee knowledge, and operational processes, can influence how effectively warehouse activities are performed.

In this study, technological integration, staff competence, and inventory management are treated as organizational resources and capabilities. The report argues that these resources can be combined to support warehouse performance and potentially provide competitive advantages.

The theory also helps explain why organizations possessing similar physical technologies may achieve different performance levels. The difference may arise from the organization's ability to develop complementary human and organizational capabilities around those technologies.

2.2 Empirical Studies and Hypotheses Development

2.2.1 Technological Integration and Warehouse Performance

Technological integration has become an important component of warehouse operations because it enables organizations to improve information sharing, workflow efficiency, inventory visibility, and operational decision-making. Yousefi and Alibabaei (2015) associate technology integration with improved workflow efficiency and information sharing, while Wang et al. (2016) emphasize its contribution to real-time information visibility and inventory control. Similarly, the literature reviewed in the study indicates that technologies such as Warehouse Management Systems (WMS), Enterprise Resource Planning (ERP), Electronic Data Interchange (EDI) and analytical tools can support warehouse coordination, inventory accuracy and operational responsiveness. These technologies can therefore enhance warehouse personnel's ability to access timely information, coordinate activities, and make informed operational decisions. However, the effectiveness of technological resources depends on how well they are integrated into existing warehouse processes and utilized by employees. From a Resource-Based View perspective, technological systems can constitute valuable organizational resources when effectively integrated and deployed to support operational activities. Therefore, existing empirical evidence suggests that greater technological integration is likely to be associated with improved warehouse performance.

2.2.1 Technological Integration and Warehouse Performance

Technology integration involves incorporating technological systems into warehouse activities. The report identifies WMS/ERP, EDI and analytics/dashboards as key technological practices.

The empirical literature reviewed in the report indicates that WMS can improve order fulfillment accuracy and reduce lead times, while automation can improve productivity and

reduce human error. The literature also associates IoT and real-time inventory tracking with improved visibility and operational responsiveness.

From an RBV perspective, technology becomes strategically useful when an organization develops the capabilities required to integrate and utilize it effectively.

H1: Technological integration practices significantly influence warehouse performance at TBL.

2.2.2 Staff Competence and Warehouse Performance

Staff competence refers to employees' knowledge, skills, experience and ability to perform warehouse activities effectively.

The empirical literature reviewed in the report emphasizes the role of training, employee engagement, competency development and communication in warehouse performance. The report notes that training can improve employees' ability to identify inefficiencies and contribute to operational improvements, while employee engagement can encourage continuous improvement.

Staff competence is particularly important because employees implement warehouse processes and use technological resources. Competent employees may therefore improve the effectiveness of other organizational resources.

H2: Staff competence significantly influences warehouse performance at TBL.

2.2.3 Inventory Management and Warehouse Performance

Inventory management includes planning, forecasting, replenishment, stock control and inventory accuracy. Effective inventory management can contribute to appropriate stock levels, reduced stockouts, reduced excess inventory and improved warehouse utilization.

The report's literature review emphasizes the importance of inventory visibility, forecasting, replenishment planning and integrated inventory systems.

From the RBV perspective, inventory management can be viewed as an organizational capability because it represents the firm's ability to coordinate and control inventory resources through established routines and processes.

H3: Inventory management practices significantly influence warehouse performance at TBL.

2. 3 Conceptual Framework

The conceptual framework illustrates the expected relationship between the three independent variables and warehouse performance.

The framework is derived from the RBV perspective and the empirical literature reviewed in this study. Technological integration, staff competence and inventory management are conceptualized as organizational resources and capabilities that may contribute to warehouse performance.

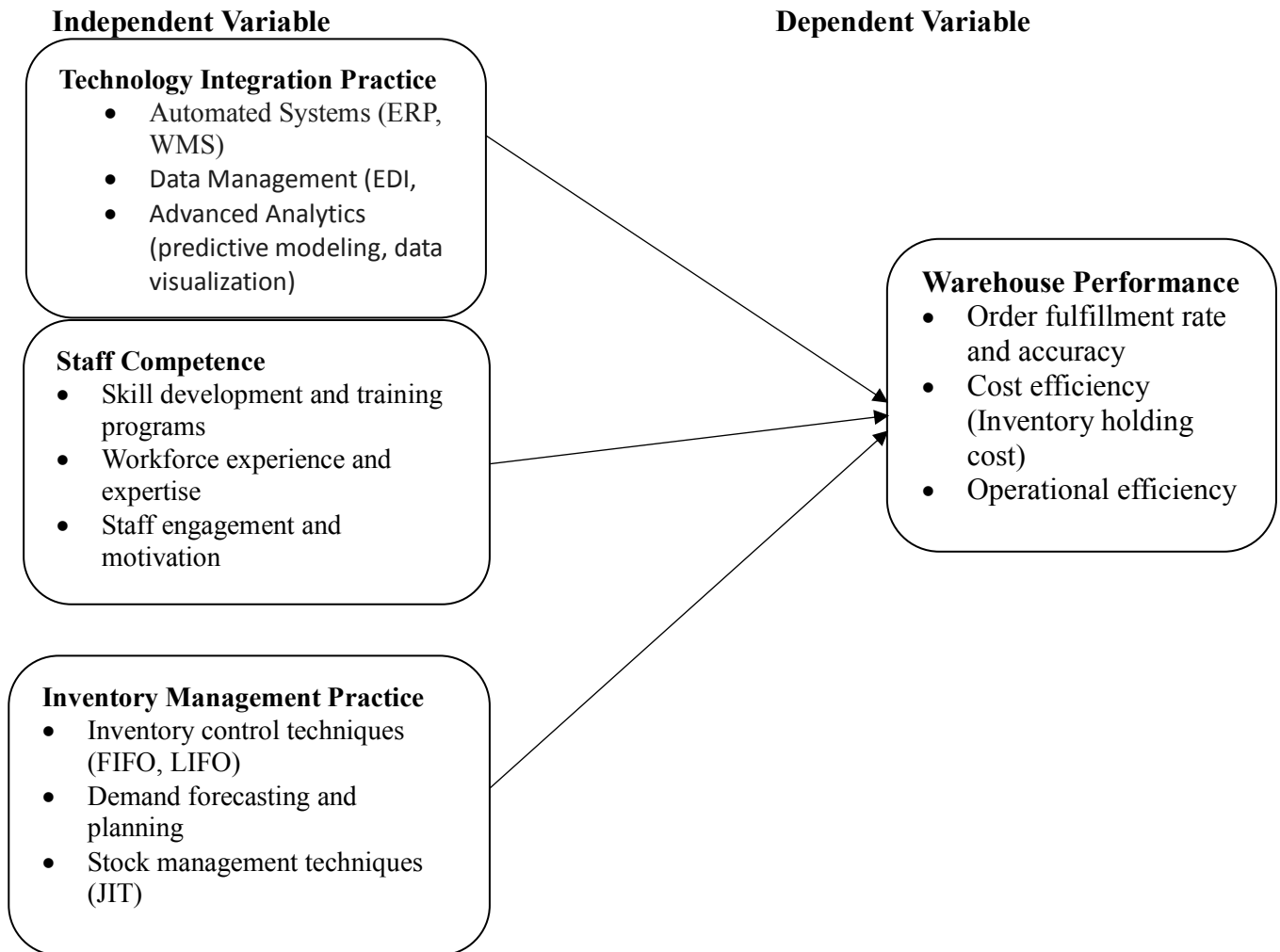


Figure 2.1: Conceptual Framework

Source: Researcher (2026)

3. Methodology

This study adopted a positivist research philosophy and a deductive quantitative approach to objectively examine the relationships between technological integration practices, staff competence, inventory management practices, and warehouse performance at Tanzania Breweries Limited (TBL). The study employed a descriptive research design to collect quantitative data from employees involved in warehouse and logistics-related functions. The study population comprised employees in the warehouse and logistics department, including managers, inventory management officers, warehouse supervisors, distribution officers and ICT officers. A sample of 99 respondents was determined using Slovin's formula. Structured questionnaires containing five-point Likert-scale items were used for data collection.

Data were analyzed using IBM SPSS Version 24, employing descriptive statistics, Pearson correlation analysis, and multiple regression analysis to examine the relationships between the study variables and test the hypotheses. The reliability of the measurement instrument was assessed using Cronbach's alpha, with coefficients ranging from 0.740 to 0.840, indicating acceptable to good internal consistency. Content validity was assessed to ensure

that questionnaire items appropriately represented the study objectives and constructs, while a pilot test was conducted before the main data collection. Ethical considerations included informed consent, voluntary participation, confidentiality, anonymity, and use of the data solely for research purposes.

4. Results

4.1 Reliability Test

The reliability of the questionnaire was assessed using Cronbach's alpha to determine the internal consistency of the items measuring each study construct. The results showed Cronbach's alpha coefficients ranging from 0.740 to 0.840, which exceed the commonly accepted minimum threshold of 0.70. This indicates that the measurement items demonstrated acceptable to good internal consistency and were sufficiently reliable for subsequent statistical analysis

4.2 Response Rate

A total of 99 questionnaires were distributed to employees involved in warehouse and logistics activities at Tanzania Breweries Limited. Of these, 96 questionnaires were returned, while three were not returned, giving about 97% response rate. The 96 returned questionnaires constituted the dataset used for the subsequent analysis.

4.3 Demographic Characteristics of Respondents

The analysis was based on 96 valid respondents, representing a 95% response rate. The demographic characteristics of respondents are summarized in Table 1. The demographic results show that the sample was predominantly composed of respondents aged 25–34 years (69.8%), while males represented 62.5% of the respondents. In terms of organizational position, distribution officers constituted the largest group (41.7%), followed by inventory management officers (31.3%), indicating that most respondents were directly involved in warehouse and distribution activities. Regarding experience, the majority had between 1 and 6 years of work experience (73.9%), suggesting that most respondents had sufficient exposure to the warehouse operations under investigation.

Table 4.1: Demographic Characteristics of Respondents

Characteristic	Category	Frequency	Percentage (%)
Age	Under 25 years	11	11.5
	25–34 years	67	69.8
	35–44 years	16	16.7
	45–54 years	2	2.1
Gender	Male	60	62.5
	Female	29	30.2
	Prefer not to say	7	7.3
Position	Manager	5	5.2
	Warehouse Supervisor	10	10.4
	ICT Officer	7	7.3
	Inventory Management Officer	30	31.3
	Distribution Officer	40	41.7
	Other	3	3.1
Work experience	Less than 1 year	16	16.7

Characteristic	Category	Frequency	Percentage (%)
	1–3 years	41	42.6
	4–6 years	30	31.3
	7–10 years	8	8.3
	Over 10 years	3	3.1

Source: Field Data (2026).

4.4 Variables Descriptive Results

4.4.1 Technological Integration Practices

Technological integration was assessed using three indicators, WMS/ERP automation, Electronic Data Interchange (EDI), and advanced analytics/dashboards. The findings indicate a moderate level of technological integration, with mean scores ranging from 3.15 to 3.27. EDI recorded the highest mean ($M = 3.27$, $SD = 1.174$), followed by advanced analytics and dashboards ($M = 3.23$, $SD = 1.169$), while integrated WMS/ERP systems recorded the lowest mean ($M = 3.15$, $SD = 1.201$). Overall, the results suggest that technology was being utilized in warehouse operations, although the moderate ratings indicate scope for further improvement in its integration and utilization.

Table 4.2: Technological Integration Practices

Indicator	Mean	SD
Integrated WMS/ERP systems	3.15	1.201
Electronic Data Interchange (EDI)	3.27	1.174
Advanced analytics/dashboards	3.23	1.169

Source: Field Data (2026)

4.4.2 Staff Competence

Staff competence was measured using regular staff training, availability of experienced employees, and staff motivation to follow standard operating procedures. The findings show moderate agreement across all three indicators. Regular staff training recorded the highest mean ($M = 3.26$, $SD = 1.190$), followed by the availability of experienced staff ($M = 3.25$, $SD = 1.196$), while staff motivation recorded the lowest mean ($M = 3.23$, $SD = 1.192$). The results therefore indicate that training, experience and motivation were present at moderate levels among warehouse employees.

Table 4.3: Staff Competence

Indicator	Mean	SD
Regular staff training	3.26	1.190
Availability of experienced staff	3.25	1.196
Staff motivation	3.23	1.192

Source: Field Data (2026)

4.4.3 Inventory Management Practices

Inventory management was assessed through demand forecasting, inventory rotation controls, and JIT-style practices. The results indicate moderate agreement, with mean scores ranging from 3.21 to 3.29. Inventory rotation controls recorded the highest mean ($M = 3.29$, $SD = 1.114$), followed by demand forecasting ($M = 3.26$, $SD = 1.181$), while JIT-style practices recorded the lowest mean ($M = 3.21$, $SD = 1.132$). Overall, the findings indicate that inventory rotation and demand forecasting were relatively more established practices than JIT-style inventory management.

Table 4.4: Inventory Management Practices

Indicator	Mean	SD
Demand forecasting	3.26	1.181
Inventory rotation controls (FIFO/LIFO)	3.29	1.114
JIT-style practices	3.21	1.132

Source: Field Data (2026)

4.4.4 Warehouse Performance

Warehouse performance was assessed using order fulfillment and accuracy, operational efficiency, and inventory-cost management. The findings show moderate levels of warehouse performance, with mean scores ranging from 3.19 to 3.26. Inventory management aimed at reducing holding costs and unnecessary capital tied up in stock recorded the highest mean ($M = 3.26$, $SD = 1.199$), followed by order fulfillment and accuracy ($M = 3.20$, $SD = 1.193$). Receiving, warehousing, picking and dispatch efficiency recorded the lowest mean ($M = 3.19$, $SD = 1.164$).

Table 4.5: Warehouse Performance

Indicator	Mean	SD
Order fulfillment rate and accuracy	3.20	1.193
Receiving, warehousing, picking and dispatch efficiency	3.19	1.164
Inventory-cost management	3.26	1.199

Source: Field Data (2026)

4.6 Correlation Results

Pearson correlation analysis showed that all three independent variables had positive and statistically significant relationships with warehouse performance. Technological integration had a moderate positive relationship ($r = .482$, $p < .001$), staff competence had the strongest relationship ($r = .597$, $p < .001$), and inventory management also demonstrated a moderate positive relationship ($r = .458$, $p < .001$). Thus, higher levels of technological integration, staff competence, and inventory management were associated with higher warehouse performance.

Table 4.6: Correlation Results Table

Independent variable	r	p-value	Interpretation
Technological integration	.482	< .001	Moderate positive relationship
Staff competence	.597	< .001	Strongest positive relationship
Inventory management	.458	< .001	Moderate positive relationship

Source: Field Data (2026)

4.7 Multiple Regression and Hypothesis Testing

The multiple regression model was statistically significant, $F(3, 92) = 62.808$, $p < .001$, with $R = .820$, $R^2 = .672$ and adjusted $R^2 = .661$. The results indicate that technological integration, staff competence, and inventory management jointly explained 67.2% of the variation in warehouse performance. The results show that all three hypotheses were supported. Staff competence was the strongest predictor of warehouse performance ($\beta = .520$), followed by inventory management ($\beta = .422$) and technological integration ($\beta = .349$).

Table 4.7: Regression Coefficients and Hypothesis Testing

Hypothesis	B	β	t	p-value	Decision
H1: Technological integration $\rightarrow$ Warehouse performance	.357	.349	5.719	< .001	Supported
H2: Staff competence $\rightarrow$ Warehouse performance	.524	.520	8.533	< .001	Supported
H3: Inventory management $\rightarrow$ Warehouse performance	.439	.422	7.054	< .001	Supported

Source: Field Data (2026)

4.8 Model Analysis Results

The multiple regression analysis showed that the model was statistically significant, $F(3, 92) = 62.808$, $p < .001$, with $R = .820$, $R^2 = .672$, and adjusted $R^2 = .661$. This indicates that technological integration, staff competence, and inventory management jointly explained 67.2% of the variation in warehouse performance, while the remaining 32.8% was attributable to other factors not included in the model. Overall, the results show that the three predictors collectively explain warehouse performance at Tanzania Breweries Limited.

Table 4.8: R-squared model analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.820 ^a	.672	.661	.64806

a. Predictors: (Constant), Inventory Management Practices, Staff Competence, Technological Integration Practices

b. Dependent Variable: Warehouse Performance

Source: Field Data, (2026)

5. Discussion of Findings

5.1 Technological Integration and Warehouse Performance

The study found that technological integration have a positive and statistically significant relationship with warehouse performance, with a correlation of $r = .482$ ($p < .001$) and a standardized regression coefficient of $\beta = .349$ ($p < .001$). This indicates that greater use and integration of WMS/ERP systems, Electronic Data Interchange (EDI), and analytical tools is associated with improved warehouse performance at Tanzania Breweries Limited. The finding is consistent with Zhao et al. (2019), who found that the implementation of sophisticated Warehouse Management Systems improves order-fulfilment accuracy and reduces lead times. Similarly, Kumar and Singh (2020) reported that warehouse automation improves productivity, reduces labour costs and minimizes human error, thereby facilitating faster order fulfilment and more accurate inventory management. Zheng et al. (2021) further demonstrated that IoT-enabled real-time tracking of inventory and equipment improves warehouse-service quality and enables organizations to respond proactively to operational disruptions. These previous findings therefore support the positive direction observed in the present study.

The present finding also extends the previous literature by demonstrating that technological integration remains significant within a Tanzanian manufacturing context. While previous studies have emphasized specific technologies such as WMS, automation and IoT, this study considers technological integration more broadly through WMS/ERP, EDI and analytical dashboards. The descriptive findings showed only moderate levels of technological integration, suggesting that the technology resources available at TBL may not yet be fully integrated across all warehouse activities. This is important because the findings suggest that merely acquiring technology may not be sufficient to improve warehouse performance; rather, organizations need to integrate technology into receiving, inventory updating, picking, dispatch and performance-monitoring processes.

From the Resource-Based View (RBV) perspective, the finding supports the argument that technological resources can contribute to organizational performance when they are effectively developed and deployed. Barney (1991) argues that organizational resources can contribute to performance when they create value and are effectively utilized. In the context of this study, WMS/ERP systems, EDI and analytical tools represent technological resources, but their contribution to warehouse performance depends on the organization's capability to integrate and exploit them. The finding is therefore consistent with the RBV argument that resources alone do not automatically generate performance advantages; organizations must possess the capabilities required to convert those resources into operational value.

5.2 Staff Competence and Warehouse Performance

Staff competence produced the strongest relationship with warehouse performance among the three explanatory variables, with $r = .597$ ($p < .001$) and the strongest standardized regression coefficient of $\beta = .520$ ($p < .001$). This result indicates that employees' training, experience, knowledge and motivation make an important contribution to warehouse performance at TBL. The finding is strongly consistent with Alavi and Ryding (2020), who found that investment in employee training improves employee efficiency and operational continuity. It is also consistent with Rymon et al. (2016), who reported that warehouses with more competent employees achieve better inventory accuracy and faster processing times. Similarly, Kaur et al. (2019) found that regularly trained employees with knowledge of warehouse processes are better able to identify inefficiencies and improve operational performance.

The finding also agrees with Ahmed and Hassan (2020), who emphasized the importance of employee engagement in creating a culture of continuous improvement, and Rodriguez and Altmann (2021), who found that competency-based training enhances job performance and continuous improvement. In addition, Liu et al. (2021) highlighted the importance of communication and collaboration among warehouse employees in reducing order-fulfilment errors. Collectively, these studies support the present finding that warehouse performance depends substantially on the capabilities and behaviours of employees.

The present study extends these findings by showing that staff competence was not only significantly associated with warehouse performance but was also the strongest predictor when technological integration and inventory management were considered simultaneously. This suggests that technology and inventory systems may not achieve their full potential without employees who possess the knowledge and skills necessary to operate systems, interpret information, follow procedures and respond to operational problems. The moderate descriptive scores for training, experience and motivation further suggest that there is still room for strengthening human capabilities at TBL.

From the RBV perspective, this finding provides particularly strong theoretical support. Human knowledge, experience, skills and organizational know-how represent intangible resources and capabilities that may be difficult for competing organizations to replicate. The original report similarly emphasizes that skilled employees are essential for effectively leveraging technological and organizational resources. Therefore, the relatively high $\beta = .520$ suggests that TBL's human resources constitute an important strategic capability for achieving superior warehouse performance.

5.3 Inventory Management and Warehouse Performance

The study found a positive and statistically significant relationship between inventory management practices and warehouse performance, with $r = .458$ ($p < .001$) and $\beta = .422$ ($p < .001$). This finding indicates that effective inventory planning, demand forecasting, stock rotation, and inventory-control practices contribute to improved warehouse performance at Tanzania Breweries Limited. The descriptive findings further support this result, as inventory rotation controls recorded the highest mean ($M = 3.29$, $SD = 1.114$), followed by demand forecasting ($M = 3.26$, $SD = 1.181$) and JIT-style practices ($M = 3.21$, $SD = 1.132$). The finding is consistent with Sabry (2015), who emphasizes forecasting, timely replenishment and appropriate inventory categorization as important practices for reducing inventory costs and improving service levels. It also agrees with Lee (2021) and Nguyen et al. (2022), who emphasize effective inventory management and forecasting as important contributors to operational performance.

Studies also support this finding by emphasizing inventory accuracy and visibility. DeHoratius and Raman (2008) demonstrate the importance of inventory-record accuracy, while Elsayed and Wahba (2016) and Eroglu and Hofer (2011) show that the relationship between inventory practices and organizational performance can vary depending on organizational and industry conditions. The positive relationship found in the present study therefore suggests that, within the TBL context, effective inventory planning and control are associated with better warehouse outcomes. In particular, accurate inventory information and effective stock rotation can help reduce stockouts, overstocking, and unnecessary inventory costs while supporting timely order fulfillment.

From the Resource-Based View (RBV) perspective, the finding suggests that inventory management represents an organizational capability through which TBL can effectively deploy and coordinate its inventory resources. Forecasting, replenishment, stock rotation and inventory-control routines constitute organizational knowledge and processes that can create operational value when effectively implemented. The finding therefore supports the RBV argument that organizational capabilities can contribute to improved performance. Overall, the result supports previous empirical evidence while extending it to the Tanzanian manufacturing context, demonstrating that inventory management is an important contributor to warehouse performance alongside technological integration and staff competence.

6. Theoretical Contribution

The study makes three main theoretical contributions.

First, it extends the application of RBV to warehouse performance within the Tanzanian manufacturing context.

Second, it demonstrates that warehouse performance can be understood as an outcome of multiple organizational resources rather than a single operational practice.

Third, the findings highlight the importance of complementarity between resources. The significant contribution of technology and inventory management alongside the stronger contribution of staff competence suggests that organizations need both resources and the capabilities to deploy them.

7. Recommendations

Based on the findings, the study recommends that,

TBL should strengthen continuous employee training. Training should focus on warehouse procedures, technology utilization, inventory control, and problem-solving.

Management should strengthen employee motivation. Motivated employees are more likely to follow standard operating procedures and contribute to continuous improvement.

The company should better integrate technology into warehouse processes. Particular attention should be given to expanding the practical utilization of WMS/ERP automation and analytics.

Strengthen inventory planning and forecasting. Improved forecasting can support appropriate stock levels and reduce unnecessary holding costs.

Inventory control and stock rotation should be continuously monitored. This can improve inventory accuracy and warehouse efficiency.

Management should adopt an integrated RBV-oriented approach. Investments in technology should be accompanied by investments in employee competence and operational processes.

8. Contribution to Knowledge

The study contributes to knowledge in three ways.

First, it provides empirical evidence from the Tanzanian manufacturing sector, a context that the report identifies as relatively underexplored in relation to RBV and warehouse performance.

Second, it shows that technological integration, staff competence, and inventory management can jointly explain a substantial share of warehouse-performance variation.

Third, it establishes that staff competence is the strongest predictor among the three factors examined. This finding emphasizes the importance of human capabilities in transforming technological and operational resources into improved warehouse performance.

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