



Assessment the Effects of Warehouse Practices on Operational Efficiency in Logistics Services in Rwanda: A case of Africa Global Logistics Company

Jean Pierre Nsengiyumva and Joseph Akumuntu

University of Kigali

Email: jpnsenga47@gmail.com

Abstract: This study assessed the effect of Warehouse Practices on operational efficiency in logistics services at Africa Global Logistics Company in Rwanda. The study adopted a descriptive and correlational research design using quantitative and qualitative approaches. The target population comprised 137 employees involved in warehouse and logistics operations, including warehouse managers, supervisors and team leaders, information technology and systems staff, logistics and transport coordinators, and operational warehouse staff. Data were collected using structured questionnaires and semi-structured interviews. A total of 132 questionnaires were administered, of which 122 were completed and returned, representing a response rate of 92.4%, while all five planned interviews with warehouse managers were successfully conducted. Quantitative data were analyzed using descriptive statistics, Pearson correlation, and regression analysis, while qualitative data were analyzed thematically. The findings indicated that inventory management practices were highly implemented, with an overall mean of 4.36 and a standard deviation of 0.644. Pearson correlation analysis revealed a positive and statistically significant relationship between inventory management and operational efficiency ($r = .630, p < .001$). Regression analysis further indicated a positive and statistically significant contribution of inventory management to operational efficiency ($\beta = .591, t = 2.276, p = .025$). Qualitative findings indicated that regular inventory monitoring, accurate inventory records, stock verification, and standardized inventory-control procedures supported improved warehouse productivity, reduced inventory discrepancies, and timely order fulfillment. The study concludes that effective inventory management contributes significantly to operational efficiency. It recommends strengthening inventory monitoring, stock verification, inventory forecasting, replenishment practices, and employee competencies in inventory management.

Keywords: Inventory Management, Operational Efficiency, Logistics Services, Warehouse Operations, Africa Global Logistics, Rwanda.

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1. Introduction

Inventory management is an essential component of logistics operations because it enables organizations to maintain appropriate stock levels, ensure the availability of goods when required, minimize unnecessary inventory costs, and support timely order fulfillment (Oliva, 2024). It

involves systematic activities related to planning, controlling, monitoring, recording, and verifying inventory throughout the warehouse process. Effective inventory management is particularly important for logistics service providers because their operational performance depends on the ability to receive, store, locate, process, and dispatch goods accurately and on time. Inadequate inventory management may result in stock shortages, overstocking, inaccurate records, delayed order processing, increased holding costs, and reduced customer satisfaction.

Consequently, inventory management has become an important operational capability for organizations seeking to improve efficiency and maintain reliable logistics services (Jeremy, 2025).

The importance of inventory management has increased with the growing complexity of modern logistics operations and the adoption of technology-based inventory-control systems. Warehouse Management Systems, barcode scanning, RFID tracking, and other digital technologies enable logistics organizations to obtain timely information about stock levels, locations, and movements. Collins and Bryant (2024) emphasize that technological integration strengthens inventory monitoring and improves the accuracy of inventory information, while Foster and Lane (2023) indicate that technology-supported inventory management facilitates better inventory forecasting and replenishment decisions. These developments demonstrate that effective inventory management extends beyond physical stock control and includes the ability of organizations to generate, maintain, and use reliable inventory information for operational decision-making.

In logistics operations, effective inventory management contributes to operational efficiency through several mechanisms. Regular inventory monitoring enables organizations to identify stock shortages and overstocking before they disrupt operations, while accurate inventory records improve stock visibility and facilitate timely decision-making. Regular stock verification can reduce discrepancies between physical stock and recorded information, and standardized inventory-control procedures can strengthen accountability and coordination among warehouse employees. Parker and Stone (2024) associate effective inventory management with operational efficiency because appropriate inventory control reduces unnecessary holding costs, minimizes stockouts, and supports timely delivery. Similarly, Thompson and Reed (2024) emphasize that systematic inventory planning and control supports efficient warehouse operations and improves order fulfillment.

The relevance of inventory management is particularly important in developing logistics environments where organizations must achieve efficient service delivery while operating under resource and infrastructural constraints (Kenny, 2025). Logistics firms in Africa increasingly require reliable inventory-control systems to support regional trade, distribution, and customer service. Christopher and Peck (2021) emphasize the role of systematic inventory management in supply chain efficiency, while Ogunleye et al. (2022) found that basic inventory-control practices, including stock audits and reorder-point systems, can improve order fulfillment and reduce stock discrepancies in African logistics warehouses. These findings indicate that effective inventory management can contribute to operational efficiency even where organizations may not have access to highly advanced technologies.

In Rwanda, the development of logistics services has increased the need for efficient warehouse operations capable of supporting domestic distribution and regional trade. Africa Global Logistics Company operates within this environment and depends on effective warehouse practices to maintain inventory accuracy, facilitate order processing, and provide reliable logistics services (Harerimana, 2025). The original study identified inventory monitoring, accurate inventory records, inventory-control procedures, and stock verification as important inventory-management practices at the company. Despite the importance of inventory management in logistics operations, organization-specific empirical evidence remains limited concerning how inventory-management practices influence operational efficiency within Africa Global Logistics Company in Rwanda. Previous studies have examined inventory control in different geographical and organizational settings, but their findings may not fully reflect the operational realities of logistics firms operating in Rwanda. The present study therefore focuses specifically on inventory management and operational efficiency at Africa Global Logistics Company. The study provides evidence concerning the extent to which inventory monitoring, record accuracy, stock verification, and inventory-control procedures contribute to the efficient delivery of logistics services.

1.1. Statement of the Problem

In modern logistics, warehouse practices, including automated Inventory Control, optimized Storage Layout, and Warehouse Management Systems (WMS) serve as the backbone of operational efficiency. Ideally, these practices synchronize to minimize lead times, reduce operational costs, and eliminate fulfillment errors, thereby ensuring a competitive edge in a globalized supply chain (Peterson & Langford, 2022). However, the transition from theory to practice remains fraught with inefficiency. Globally, poor warehouse management accounts for 20% to 35% of total logistics costs, with order picking alone consuming up to 55% of operating budgets (Global Logistics Review, 2022). In developing economies, this issue is aggravated by inventory inaccuracy rates of up to 25%, leading to systemic stock-outs and revenue loss (Terry, 2024). Inefficient supply chains result in unsold inventory and unfilled customer orders, posing a significant risk to company profitability and competitive advantage (Datta, 2017; Kirovska et al., 2016; Liotta, Stecca, & Kaihara, 2015; Angeleanu, 2015).

In Rwanda, the logistics sector faces a unique set of bottlenecks. Despite the nation's ambition to become a regional logistics hub, local providers struggle with suboptimal layouts, manual material handling, and a shortage of technical expertise (Rwakayija & Mutesi, 2023). These deficiencies manifest as delayed order fulfillment and inflated costs, which threaten the competitiveness of the domestic economy. The study also showed that insufficient storage space, outdated warehouse designs, shortage of

warehouse equipment, lack of accurate data, and capacity building gaps were the main inventory management challenges faced by the facility. (Boche et al., 2020). It is in this regard that the researcher thought to address this gap by conducting a study on the effect of warehouse practices on operational efficiency in logistics services, with a case of Africa Global Logistics Company in Rwanda.

While international scholars (Tan & Wijaya, 2021; Schneider & Hoffmann, 2022) has established the benefits of automation and WMS in Asia and Europe, there is a critical empirical silence regarding the Rwandan context. Existing literature often focuses on broad regional trends in East Africa, failing to account for Rwanda's specific regulatory framework and operational constraints. Furthermore, research has rarely integrated multiple variables like: inventory management, order fulfillment speed, layout design, and technology integration into a single, holistic analysis within a Rwandan firm (Nsengimana & Habiyaemye, 2023). Consequently, there is an urgent need to investigate how these multidimensional warehouse practices specifically influence the operational efficiency of a major industry player. This influence may occur through improved coordination of inventory management, warehouse layout optimization, technology adoption, labor productivity, and distribution processes, all of which directly affect operational efficiency by using Africa Global Logistics (AGL) as a case study,

This research seeks to bridge the gap between global logistics theories and Rwandan operational realities, providing the empirical evidence necessary to optimize logistics performance in a burgeoning land-linked economy where Rwanda is often described as moving from a landlocked to a land-linked economy by investing in roads, regional trade, logistics, and digital infrastructure to connect with neighboring countries and ports (RWANDA Long Term Development Goals, 2025).

1.2. Objectives of the study

This research was guided by the following study objectives:

1.2.1. General Objective

The main objective of this study is to assess the effect of warehouse practices on operational efficiency in logistics services in Rwanda, using Africa Global Logistics Company as a case study.

1.2.2. Specific Objectives

The following are specific objectives that guided this study:

- i. To assess the influence of inventory management on operational efficiency in logistics services at Africa Global Logistics Company.

2. Literature Review

Inventory management refers to systematic planning, control, monitoring, and maintenance of stock to ensure that the appropriate quantity of goods is available when required while minimizing unnecessary inventory-related costs. Effective inventory management includes maintaining accurate inventory records, monitoring stock levels, conducting regular stock verification, controlling inventory movements, and ensuring timely replenishment. Thompson and Reed (2024) explain that inventory management is a critical warehouse practice because it ensures product availability while preventing excessive and insufficient stock levels. Harrison and Blake (2023) similarly emphasize that systematic stock tracking, categorization, and replenishment enable logistics firms to maintain continuous flows of goods and minimize operational disruptions.

Accurate inventory information is particularly important in modern logistics operations because warehouse decisions depend heavily on the availability of reliable stock information. Collins and Bryant (2024) indicate that technologies such as Warehouse Management Systems, barcode scanning, and RFID tracking can strengthen inventory management by providing timely information about stock levels and movements. These technologies enable warehouse managers to make better decisions concerning inventory control, replenishment, storage, and distribution. Foster and Lane (2023) further emphasize that technology-supported inventory management can improve inventory forecasting and replenishment planning, thereby contributing to operational continuity and resilience.

Effective inventory management also has implications for cost control and customer service. When organizations maintain appropriate stock levels, they can reduce unnecessary holding costs while ensuring that goods are available to satisfy customer requirements. Parker and Stone (2024) argue that effective inventory management contributes to operational efficiency by preventing stockouts and overstocking, reducing wastage, and supporting timely delivery. Accurate inventory records also improve coordination among warehouse employees and other logistics stakeholders because reliable stock information facilitates faster decision-making and reduces the likelihood of errors. Consequently, inventory management represents a fundamental operational practice through which logistics organizations can improve service reliability and resource utilization.

Operational efficiency refers to the ability of an organization to provide services accurately, reliably, and on time while making effective use of available resources. In logistics services, operational efficiency is reflected in timely order processing, accurate fulfillment, appropriate resource utilization, reduced operational costs, coordinated warehouse processes, and customer satisfaction. Parker and Lewis (2024) explain that operational efficiency involves the coordination of logistics resources and activities to

ensure that goods move smoothly through the supply chain. Terry (2024) further notes that efficient logistics operations enable firms to reduce delays, improve responsiveness, and maintain consistent service quality.

Inventory management contributes to operational efficiency because inventory is directly connected to order fulfillment and warehouse resource utilization. When stock records are accurate, employees can identify required products quickly and process orders with fewer delays. Regular inventory monitoring reduces the possibility of stockouts and overstocking, while stock verification enables organizations to identify and correct discrepancies. These practices contribute to efficient warehouse operations by improving inventory visibility and supporting informed operational decisions. The relationship between inventory management and operational efficiency is therefore expected to be positive because improvements in inventory control can reduce operational disruptions and strengthen the reliability of logistics services.

2.1 Theoretical Perspective

The study was guided by the Resource-Based View (RBV) Theory, which was formally developed by Barney (1991). The Resource-Based View explains organizational performance by emphasizing the importance of internal resources and capabilities. Barney (1991) argues that organizations can achieve sustained competitive advantage when they possess and effectively organize resources that are valuable, rare, difficult to imitate, and properly utilized. The theory has subsequently been applied to organizational strategy, operations, and logistics because warehouse systems, employee skills, information, organizational procedures, and technological capabilities can influence operational performance.

The relevance of RBV to inventory management lies in the fact that inventory-control procedures, accurate inventory information, employee competencies, monitoring systems, and stock-verification practices represent organizational capabilities. The effectiveness of inventory management therefore depends not simply on the availability of inventory but also on how effectively the organization manages information and processes associated with that inventory. Teery (2022) explains that RBV can be applied to warehouse operations by considering internal processes and resources as capabilities that contribute to organizational performance, while Uttoy (2024) emphasizes the importance of resource-based capabilities in improving operational efficiency within logistics firms.

At Africa Global Logistics Company, inventory management can be viewed as an organizational capability through which available inventory resources are controlled and utilized efficiently. Regular monitoring, accurate records, stock verification, and standardized control procedures can help the organization reduce waste, improve resource allocation, and support timely order fulfillment. From an RBV perspective, therefore, organizations that

develop strong inventory-management capabilities are better positioned to achieve operational efficiency because they are able to utilize their internal resources more effectively.

2.2 Empirical Review

Evidence from previous studies generally demonstrates a positive relationship between inventory management and logistics performance. Christopher and Peck (2021), in a study of multinational logistics companies in Europe and North America, found that organizations with systematic inventory tracking and demand forecasting experienced improvements in stock availability and order-fulfillment accuracy. The study concluded that effective inventory control enhances logistics efficiency and reliability. Although the study provides useful evidence concerning the importance of systematic inventory management, its focus on developed logistics environments limits the extent to which its findings can be directly generalized to organizations operating in developing-country contexts.

Ogunleye et al. (2022) examined inventory-control practices among retail distribution warehouses in Nigeria and found that warehouses using reorder-point systems and regular stock audits achieved improved order fulfillment and reduced stock discrepancies. The study demonstrated that even relatively basic inventory-management practices can improve operational performance in African logistics environments. Similarly, Mugisha et al. (2023) reported that logistics warehouses using structured stock monitoring and mobile-based inventory tracking achieved faster order fulfillment and fewer stockouts. These findings suggest that effective inventory management remains important even where logistics organizations operate under technological and infrastructural constraints.

In Rwanda, Munyaneza and Uwera (2024) examined inventory management and operational efficiency in logistics organizations and found that the integration of inventory-control systems, barcode scanning, and systematic stock management improved order processing and reduced inventory-related costs. The study demonstrates the importance of inventory management in the Rwandan logistics environment. However, additional organization-specific evidence remains necessary because logistics organizations differ in terms of operational processes, workforce capabilities, technologies, and inventory requirements.

The present study addresses this gap by focusing specifically on Africa Global Logistics Company. Rather than examining warehouse practices as a broad group, the manuscript concentrates on inventory management and its relationship with operational efficiency. This focused approach provides a clearer understanding of whether inventory monitoring, accurate inventory records, inventory-control procedures, and stock verification are associated with improved operational outcomes at the company.

3. Methodology

The study adopted a descriptive and correlational research design using quantitative and qualitative approaches. The descriptive component enabled the researcher to assess the level of implementation of inventory-management practices, while the correlational component was used to establish the relationship between inventory management and operational efficiency. Qualitative information obtained through interviews with warehouse managers complemented the quantitative findings by providing explanations concerning how inventory-management practices affect warehouse operations.

The target population comprised 137 employees involved in warehouse and logistics activities at Africa Global Logistics Company. The population included warehouse managers, supervisors and team leaders, IT and systems staff, logistics and transport coordinators, and operational warehouse staff. The study used a census approach because the population was manageable. Questionnaires were administered to 132 respondents, while five warehouse managers participated as key informants. A total of 122 questionnaires were returned and all five planned interviews were conducted.

Data were collected using structured questionnaires and semi-structured interviews. The questionnaire employed a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The inventory-management section assessed issues including inventory-record accuracy, stock-level monitoring, prevention of stock shortages and overstocking, inventory systems and timely order fulfillment, and inventory tracking. Interviews with warehouse managers focused on inventory monitoring and its contribution to order accuracy and timely delivery.

Quantitative data were analyzed using descriptive statistics, Pearson's Product-Moment Correlation, and regression analysis. Means and standard deviations were used to summarize respondents' perceptions of inventory-management practices, while Pearson correlation was used to establish the direction and strength of the relationship between inventory management and operational efficiency.

Regression analysis was used to examine the contribution of inventory management to operational efficiency while accounting for the other warehouse-practice variables contained in the original thesis model. Qualitative information from the interviews was analyzed thematically and used to complement the quantitative findings.

4. Results and Discussion

4.1. Findings

4.1.1. Response rate

The study targeted 137 participants from Africa Global Logistics Company. A total of 132 questionnaires were administered to supervisors and team leaders, IT and systems staff, logistics and transport coordinators, and operational warehouse staff, while five warehouse managers participated in interviews. Of the 132 questionnaires distributed, 122 were completed and returned, representing a response rate of 92.4%. All five planned interviews were successfully conducted, representing a response rate of 100%. Overall, 127 responses were obtained from the 137 targeted participants, representing an overall participation rate of 92.7%. The high response rate provided adequate information for analyzing inventory management and operational efficiency.

4.1.2. Descriptive statistics on inventory-management practices

The descriptive statistics presented in this section assess respondents' perceptions of inventory-management practices at Africa Global Logistics Company. The analysis focuses on inventory-level monitoring, accuracy and timeliness of inventory records, inventory-control procedures, regular stock verification, and the contribution of inventory management to operational efficiency. The responses were measured using a five-point Likert scale, where higher mean scores indicate stronger agreement with the respective statements.

Table 1: Descriptive Statistics on Inventory Management

Statement	N	Mean	Std.
Inventory levels are regularly monitored to avoid stock shortages and overstocking	122	4.31	0.664
Inventory records are accurate and updated on time	122	4.38	0.631
Inventory control procedures improve warehouse operations	122	4.35	0.648
Regular stock verification minimizes inventory discrepancies	122	4.29	0.682
Effective inventory management contributes to operational efficiency	122	4.45	0.596
Overall Mean	122	4.36	0.644

Source: Field Data (2026).

Table 1 presents respondents' perceptions of inventory-management practices at Africa Global Logistics Company. The overall mean score of 4.36, with a standard deviation of 0.644, indicates a high level of agreement concerning the effectiveness of inventory management. The highest mean

score was recorded for the statement that effective inventory management contributes to operational efficiency (M = 4.45, SD = 0.596). Accurate and timely inventory records also received a high mean score of 4.38 (SD = 0.631), suggesting that respondents perceived inventory

information to be generally reliable and available for operational decision-making.

Inventory-control procedures recorded a mean of 4.35 (SD = 0.648), while regular inventory monitoring recorded a mean of 4.31 (SD = 0.664). These findings indicate that the company had established practices for monitoring stock and controlling inventory levels. The lowest mean, although still high, was recorded for regular stock verification at 4.29 (SD = 0.682). This suggests that stock verification was generally practiced and contributed to minimizing inventory discrepancies. Overall, the descriptive findings demonstrate that respondents perceived inventory management as a well-established practice at Africa Global Logistics Company.

4.1.3 Qualitative Findings on Inventory Management

The qualitative findings obtained from warehouse managers supported the quantitative evidence. The interview responses indicated that inventory levels were monitored regularly to maintain appropriate stock quantities and avoid operational disruptions. Managers emphasized that continuous monitoring enabled employees to identify stock shortages and excessive inventory and to take corrective action. The interviews also indicated that inventory movements were recorded through established warehouse procedures, enabling employees to obtain information concerning available stock and support timely order processing.

The warehouse managers further emphasized the importance of accurate inventory records and regular stock verification. Accurate records were perceived as essential for maintaining consistency between physical inventory and recorded information, while stock verification enabled employees to identify discrepancies and make corrections. These practices were reported to contribute to improved

inventory accuracy and accountability within warehouse operations. The qualitative findings therefore provide an explanation for the high descriptive scores obtained for inventory-record accuracy and stock verification.

The interview evidence also indicated that standardized inventory-control procedures contributed to better coordination of warehouse activities. Managers reported that procedures governing inventory receipt, storage, monitoring, picking, and dispatch helped employees perform their responsibilities consistently. These practices were associated with reduced errors, improved inventory visibility, and more efficient warehouse operations. The qualitative findings therefore reinforce the quantitative evidence that effective inventory management contributes to operational efficiency at Africa Global Logistics Company.

4.1.4. Correlation analysis

Correlation analysis was conducted to determine the direction and strength of the relationship between inventory management and operational efficiency at Africa Global Logistics Company. Pearson’s Product-Moment Correlation Coefficient was used because both variables were measured using continuous composite scores derived from the questionnaire responses. The coefficient ranges from -1 to +1, where a positive value indicates that increases in one variable are associated with increases in the other, while a negative value indicates an inverse relationship. The significance level was assessed at the 0.05 level.

4.4 Correlation between Inventory Management and Operational Efficiency

Table 2: Correlation		
Variables	Inventory Management	Operational Efficiency
Inventory Management	1	.630**
Operational Efficiency	.630**	1
Sig. (2-tailed)	—	.000
N	122	122

Note. **Correlation is significant at the 0.01 level (2-tailed).

Source: Field Data (2026).

Table 2 shows a positive and statistically significant relationship between inventory management and operational efficiency at Africa Global Logistics Company (r = .630, p < .001). The coefficient indicates a moderately strong positive relationship, meaning that higher levels of effective inventory management were associated with higher levels of operational efficiency. Inventory management also recorded the strongest relationship with operational efficiency among the warehouse practices examined in the original study.

The findings suggest that effective inventory monitoring, accurate inventory records, stock verification, and inventory-control procedures are associated with improved operational outcomes. The result is consistent with Christopher and Peck (2021), who found that systematic inventory control improves logistics efficiency and order-fulfillment accuracy. It is also consistent with Ogunleye et al. (2022) and Mugisha et al. (2023), who found positive

relationships between inventory-control practices and logistics performance in African and East African settings. The finding further supports Parker and Stone (2024), who

associate effective inventory management with cost reduction, service reliability, and operational efficiency.

4.5 Regression Findings

The original thesis employed a multiple regression model containing inventory management, material handling,

Predictor	B	Std. Error	Beta (β)	t	Sig.
Inventory Management	.566	.249	.591	2.276	.025

Source: Field Data (2026).

Table 3 indicates that inventory management had a positive and statistically significant contribution to operational efficiency, with a standardized beta coefficient of .591, a t-value of 2.276, and a significance value of .025. Since the p-value is below the 0.05 significance level, the null hypothesis stating that inventory management has no significant influence on operational efficiency is rejected. The result therefore provides statistical evidence that inventory management contributes significantly to operational efficiency at Africa Global Logistics Company.

The finding means that inventory management remains an important contributor to operational efficiency even when considered alongside other warehouse practices in the original regression model. Effective inventory management provides accurate information concerning stock availability, supports appropriate replenishment decisions, reduces inventory discrepancies, and facilitates timely order fulfillment. These mechanisms can improve the speed and accuracy of warehouse operations and reduce operational disruptions.

4.6 Discussion of Findings

The findings demonstrate that inventory management has a positive and statistically significant relationship with operational efficiency at Africa Global Logistics Company. The descriptive results showed that respondents generally agreed that inventory levels were monitored, inventory records were accurate and updated, inventory-control procedures were implemented, and stock verification was undertaken. The overall mean indicates that inventory management practices were highly implemented within the organization. These findings suggest that the company has established inventory-management processes that support the control and utilization of warehouse resources.

The correlation analysis strengthened this conclusion by demonstrating a positive and statistically significant relationship between inventory management and operational efficiency. The regression coefficient further indicated a statistically significant positive contribution of inventory management to operational efficiency. Therefore, the evidence from both correlation and regression analysis

warehouse layout, and Warehouse Management Systems. The overall model was statistically significant, with $R = .740$, $R^2 = .548$, adjusted $R^2 = .533$, and $F = 35.481$, $p < .001$. However, because the present manuscript is intentionally restricted to the first specific objective, the interpretation below focuses only on the inventory-management coefficient rather than presenting the other three variables as study objectives.

consistently demonstrates that inventory management is an important factor associated with operational efficiency at Africa Global Logistics Company.

The finding is consistent with Mwangi and Muturi (2022), who found that effective inventory management improves warehouse performance through greater inventory accuracy, reduced stock shortages, lower inventory holding costs, and improved customer service. It also agrees with Adebayo and Olawale (2021), who established that accurate inventory records and regular inventory verification support operational efficiency by reducing inventory discrepancies and improving managerial decision-making. Nkundabanyanga et al. (2023) similarly found that inventory-control practices improve logistics performance by enhancing warehouse coordination, reducing operational waste, and increasing inventory visibility.

The findings can also be explained through the Resource-Based View Theory. Barney (1991) argues that organizations can achieve superior performance through the effective utilization and organization of valuable internal resources and capabilities. Within Africa Global Logistics Company, inventory records, inventory-control procedures, monitoring systems, employee knowledge, and stock-verification practices can be considered organizational capabilities that support efficient resource utilization. When these capabilities are effectively coordinated, the organization can reduce inventory-related waste, improve stock accuracy, support timely order fulfillment, and strengthen service reliability.

The qualitative findings provide additional explanation for the statistical results. Warehouse managers emphasized that regular inventory monitoring, accurate records, stock verification, and standardized inventory-control procedures improve inventory accuracy and reduce operational problems. These practices allow warehouse employees to obtain timely information about stock availability and support more efficient order processing. The qualitative evidence therefore demonstrates the practical mechanisms through which inventory management can contribute to operational efficiency.

Overall, the quantitative findings, qualitative evidence, empirical literature, and Resource-Based View Theory

provide converging evidence that inventory management is an important contributor to operational efficiency at Africa Global Logistics Company. Effective inventory management can improve stock visibility, reduce discrepancies, support timely order fulfillment, minimize unnecessary inventory-related costs, and strengthen warehouse coordination. The study therefore demonstrates the importance of maintaining and continuously improving inventory-management capabilities within logistics service organizations in Rwanda.

5. Conclusion and Recommendations

5.1 Conclusion

The study concludes that inventory management has a positive and statistically significant influence on operational efficiency in logistics services at Africa Global Logistics Company. The descriptive findings showed that respondents generally agreed that inventory levels were regularly monitored, inventory records were accurate and updated, inventory-control procedures were implemented, and stock verification was undertaken. The overall mean demonstrates a high level of agreement concerning the effectiveness of inventory management practices at the company. The inferential findings provide further evidence supporting the conclusion. Pearson correlation analysis revealed a positive and statistically significant relationship between inventory management and operational efficiency while regression analysis indicated a positive and statistically significant contribution of inventory management. The study therefore concludes that effective inventory management is an important organizational capability for improving operational efficiency at Africa Global Logistics Company. Strengthening inventory-management practices can help the company maintain accurate stock information, reduce inventory discrepancies, improve resource utilization, facilitate timely order fulfillment, and enhance the reliability of logistics services.

5.2 Recommendations

Based on the findings of this study, the following recommendations were made:

1. Africa Global Logistics Company should strengthen continuous inventory monitoring and stock verification. Management should ensure that inventory levels are monitored systematically and that physical stock is regularly reconciled with inventory records. Regular verification and reconciliation should be used to identify discrepancies at an early stage and prevent inventory inaccuracies from affecting order fulfillment and service delivery.
2. The company should strengthen inventory forecasting and replenishment practices. Inventory information should be used systematically to determine appropriate stock levels and

replenishment requirements. Improved forecasting can help prevent both stock shortages and unnecessary overstocking, thereby reducing avoidable inventory costs while ensuring that goods are available when required.

3. Africa Global Logistics Company should continuously strengthen employee competencies in inventory management. Employees responsible for inventory control should receive regular training in inventory-record management, stock verification, inventory monitoring, and the effective use of available inventory technologies. Strengthening employee competencies will support consistent implementation of inventory-control procedures and contribute to sustained operational efficiency.

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