Effect of Supply Chain Management Functions on Operational Performance of the Uganda Police Force

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ABSTRACT

Security and economic development are closely intertwined, yet according to the World Justice Project Rule of Law Index (2025), only 18 of 143 countries achieved a score of 0.90 in Order and Security. Similarly, according to the Uganda Police Force (UPF) Annual Crime Reports (2018–2023), crime increased by 15%, crime clearance rates declined from 60.8% to 60.3%, and average emergency response time remained at 45 minutes compared to the global benchmark of 15 minutes. This study examined the effect of supply chain management functions on operational performance of the Uganda Police Force. Guided by the Resource-Based View theory, the study adopted a positivist philosophy and a quantitative approach using a correlational research design. The target population comprised 10,141 police officers from regional police headquarters and divisions within Uganda's four major cities. A sample of 370 respondents was selected using stratified sampling, while a pilot study was conducted among 70 officers. The findings revealed that supply chain management functions significantly and positively influence operational performance ($\beta = 0.712$, $p < 0.001$; $R^2 = 0.507$). The study recommends integrated policy interventions, strategic investments in supply chain systems, and sustainable financing mechanisms to strengthen operational effectiveness and service delivery within the Uganda Police Force.

Background of the Study

Supply Chain Management (SCM) has become a critical component of organizational effectiveness because it integrates the activities required to acquire, store, move and distribute resources to where they are needed. Globally, the SCM market was valued at USD 25.74 billion in 2022 and was projected to reach approximately USD 72.1 billion by 2032, representing a 10.9% CAGR (Shusong, 2023). Chopra and Meindl (2016) define SCM as involving all entities directly or indirectly engaged in fulfilling demand, including suppliers, manufacturers, transporters, warehouses, retailers and customers. Within organizations, SCM encompasses interconnected functions such as procurement, inventory management, warehousing, transportation, materials handling and information flow, which collectively facilitate the efficient movement of materials and resources (Tien et al., 2019; Copacino, 2019; Richey et al., 2022; Abdirad & Krishnan, 2021). In public institutions such as police organizations, effective SCM functions are particularly important because operational activities depend on the timely availability and distribution of vehicles, equipment, supplies and other logistical resources.

The importance of SCM functions is evident in policing, where transportation, inventory management and warehousing directly support operational readiness. Efficient transportation facilitates the rapid deployment of officers and equipment, while effective inventory management ensures that essential resources are available when required. Similarly, adequate warehousing enables secure storage, systematic stock control and timely distribution of supplies (Kamalahmadi & Mellat-Parast, 2016; Huston & Bryan, 2019). Evidence from different countries indicates that police SCM systems face varying challenges. In the United States and Europe, procurement, logistics, inventory management, technology integration and compliance have supported improved

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resource management and response capabilities, while India has experienced constraints associated with limited financial resources and outdated technology (Williams & Collins, 2018; Sharma & Kumar, 2018). China has improved response efficiency through real-time monitoring, whereas Australia has reported benefits from effective inventory management, although rural areas continue to experience logistical delays (Li & Zhang, 2019; Australian Institute of Criminology, 2020). In Africa, particularly East Africa, inventory management, warehousing and transportation remain central SCM functions, although inadequate infrastructure, poor record-keeping and inefficient transportation systems continue to constrain timely resource distribution (Mwangi & Otieno, 2020; Nabukenya & Kisembo, 2018).

Operational performance refers to an organization's ability to execute its activities efficiently and effectively while optimizing available resources and achieving desired outputs (Slack et al., 2010; Gimbert et al., 2010). It incorporates dimensions such as cost efficiency, speed, dependability, flexibility, quality and effectiveness (Narasimhan & Kim, 2002; Gunasekaran et al., 2004). In policing, operational performance is more specifically reflected through response time, crime rate, crime clearance rate and enforcement productivity (Caputo, 2018; Sparrow, 2015). Crime rate provides an indication of the prevalence and severity of crime, while crime clearance rate reflects the proportion of reported crimes resolved by a police jurisdiction within a specified period (Ratcliffe, 2015; Blanes-Vidal & Kirchmaier, 2018). Response time and enforcement productivity, including arrests and other enforcement activities, further provide direct measures of police effectiveness (Coleman et al., 2012; Maguire, 2003).

The relationship between SCM functions and operational performance is particularly important for the Uganda Police Force (UPF). The available evidence indicates substantial operational challenges. Globally, optimized SCM has reportedly been associated with a 25% reduction in response times, a 20% increase in crime-resolution rates, and a 30% improvement in resource availability among police forces in developed countries. In Uganda, however, the UPF Crime Report for 2019–2023 indicated that crime rates increased by 15%, while the crime clearance rate declined from 60.8% to 60.3%. Average police response time was reported at 45 minutes, compared with a 15-minute global standard (UPF, 2023). Furthermore, approximately 40% of police stations experienced delays and shortages associated with inadequate inventory systems and poor record keeping (UPF, 2020). Poor transportation infrastructure has also constrained the rapid distribution of resources, particularly across remote areas (Mugisha & Mukasa, 2019). These statistics demonstrate that weaknesses in transportation, inventory management and warehousing can undermine resource availability, response speed and enforcement effectiveness, thereby providing a strong basis for examining the effect of SCM functions on operational performance in the Uganda Police Force.

Problem statement

Effective supply chain management (SCM) is critical to the operational performance of police forces because efficient transportation, warehousing, inventory management and related logistics functions enable timely deployment of personnel and resources. Despite efforts by the Uganda Police Force (UPF) to strengthen its SCM functions through acquisition of vehicles, establishment of regional maintenance centres and warehouses, recruitment of logistics personnel, and improvement of inventory systems, significant operational performance challenges persist. UPF crime reports for 2018–2023 indicate a 15% increase in crime rates, a decline in the crime clearance rate from 60.8% to 60.3%, and average response times of about 45 minutes compared with the 15-minute global benchmark. These challenges have been associated with weaknesses in transportation, warehousing and inventory management, including inadequate facilities, logistical constraints and inefficient resource deployment.

Although previous studies have examined SCM and organizational performance, limited empirical evidence exists on the combined effect of key SCM functions on the operational performance of police forces in Uganda. Much of the existing literature focuses on individual SCM components or contexts outside developing-country law enforcement institutions, making the findings less applicable to the UPF. Consequently, there is insufficient quantitative evidence on how transportation, warehouse management and inventory management collectively influence operational performance. This study therefore examines the effect of SCM functions on the operational performance of the Uganda Police Force.

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Objective of the study

To determine the effect of Supply Chain Management functions on the operational performance of the Uganda Police Force.

CONCEPTUAL FRAMEWORK

The conceptual framework illustrating the relationship between supply chain management functions and operational performance of the Uganda Police Force is presented in Figure 1.

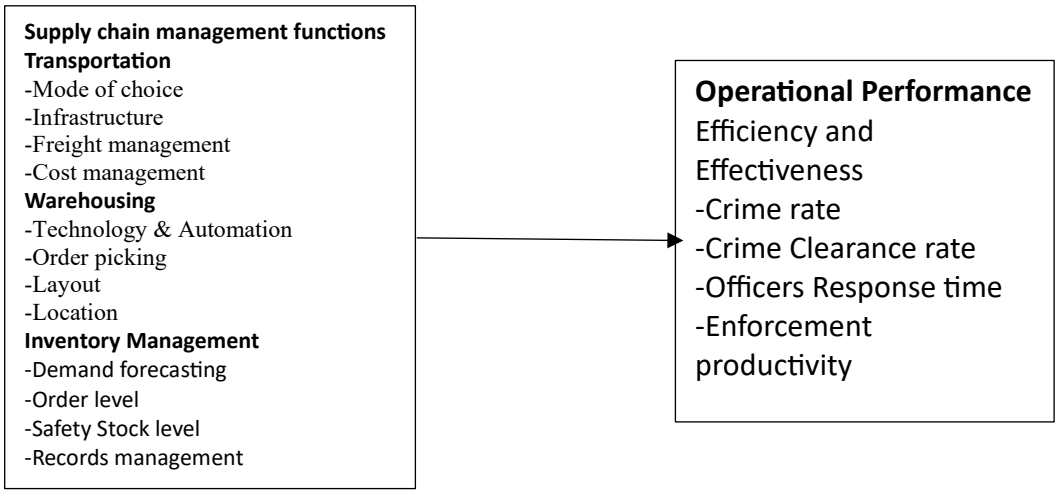

Figure 1. Conceptual Framework

THEORETICAL FRAMEWORK

The Resource-Based View (RBV), first articulated by Barney (1991) and Wernerfelt (1984), posits that an organization's capacity to maintain a competitive advantage depends on the acquisition and utilization of resources that are valuable, rare, inimitable, and non-substitutable (VRIN). The RBV posits that certain resources empower an organization to distinguish itself within the marketplace by cultivating distinctive capabilities that are not readily imitable by competitors. The Uganda Police Force could benefit from the implementation of effective Supply chain management functions, as RBV indicates. Optimized transportation, warehousing, and inventory management served as strategic resources that have the potential to significantly enhance the operational performance of the force. This viewpoint was crucial in emphasizing how concentrating on distinctive internal resources, especially those associated with SCM, could enhance the efficacy and efficiency of public services.

A notable strength of RBV lies in its focus on internal organizational resources as pivotal elements in fostering sustainable competitive advantage, applicable to both private and public sector entities. By concentrating on distinctive assets and capabilities, the RBV offered organizations a systematic framework to improve operational results while minimizing dependence on external influences. Moreover, RBV's emphasis on the distinctiveness and irreplaceability of resources offered organizations valuable perspectives on developing capabilities that rivals found challenging to replicate. Nonetheless, a significant limitation of the RBV was its presumption that internal resources are the sole determinants of competitive advantage, potentially neglecting the impact of external factors, including market fluctuations and competitive behavior, on organizational achievement. Moreover, detractors contend that the RBV inadequately addressed the influence of financial limitations or restricted access to essential resources, a shortcoming particularly pertinent in resource-constrained environments such as public sector entities.

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The RBV had demonstrated effectiveness in scenarios where entities held distinctive, expertly managed resources that were challenging for competitors to imitate. In the realm of the private sector, organizations such as Apple and Toyota harness unique internal capabilities exemplified by innovation and lean manufacturing as VRIN resources that enhance their competitive edge. Nonetheless, the RBV had occasionally proven inadequate in public sector scenarios or in contexts characterized by resource constraints, as public entities might not consistently possess access to unique resources or adequate funding to maintain them. In the context of the UPF, the application of the RBV underscored the capacity of SCM functions to improve operational performance. However, it also drew attention to the limitations imposed by constrained financial resources, which could hinder the optimal utilization of these assets.

The RBV theory was congruent with the objectives of this study, highlighting the significance of internal capabilities, specifically SCM functions, as strategic resources that enhanced the operational performance of the Uganda Police Force. This viewpoint aligned with the primary aim, which endeavored to elucidate the connection between SCM functions and operational performance. Furthermore, the emphasis on resource management within RBV was pertinent to comprehending the influence of SCMP, as constrained funding would impact the capacity of SCM functions to serve as a continuous source of operational enhancement. This alignment expounded the necessity for the Uganda Police Force to cultivate not only effective SCM functions but also ensure sufficient financing, thereby allowing these practices to act as enduring catalysts for performance improvement. Other relevant theories to the study included: Transaction Costs Economics theory and Systems theory. However the RBV Theory was supreme to these theories since it emphasized unique internal resources and capabilities such as as critical enablers of competitive advantage. In addition, whereas TCE Theory focused narrowly on costs minimisation in transactions, RBV explained how financing strengthen or constrains Police Force's ability to leverage Supply chain management functions for superior operational performance. Similarly while Systems theory showed the interconnection, RBV provided stronger justification for examining how financial resources moderate the SCM-Performance by shaping the depth and operational outcomes.

EMPIRICAL LITERATURE REVIEW

In their study, Ghio, Audretsch, and Lehmann (2023) examined the role of transport infrastructure endowment on firm performance, particularly focusing on emerging economies. The study explored how transport networks (such as roads and railways) and transport nodes (like airports and ports) influence labor productivity in firms. The methodology employed a multilevel analytical approach, combining firm-level data from Eastern Europe and Central Asia with country-level data on transport infrastructure. The results indicated that transport networks, especially roads and railways, had a significant positive impact on firm labor productivity, while transport nodes showed minimal effects. The study highlighted that transport networks facilitated knowledge spillovers and improved connectivity, fostering a better environment for firms to thrive. While the study provided valuable insights into the importance of transport infrastructure, it was geographically limited to Eastern Europe and Central Asia, which could not fully represent the problems among law enforcement agencies in Uganda in relation to transportation and operational performance. The study also focused on transport networks and nodes as key elements of transport infrastructure, but it did not address other crucial components of transportation such as freight management, cost management and choice of mode. Furthermore, the study relied on a multilevel analysis with secondary data, which could not capture the current state of transport in Uganda as was carried out using primary data in the current study.

Wachieni and Ndolo (2022) investigated the effect of freight management on the operational performance of humanitarian value chains in Kenya, focusing on variables such as freight security measures (track and trace services) and employee training in security protocols. Using a cross-sectional design, they collected data from 100 respondents across various humanitarian organizations with semi-structured questionnaires and applied linear regression analysis. The results indicated a significant positive relationship between freight security practices and operational performance. While the study highlighted valuable insights into freight management as one of the constructs of transportation, a function of supply chain management, it still recorded weaknesses. Notably, the research did not consider other variables such as choice of mode, infrastructure, and cost management, all of which could influence operational performance. Additionally, the study did not employ any specific theoretical framework to guide its analysis, which weakens its theoretical grounding. Moreover, lacked

clear data collection method and type weakens the study's methodology, while focusing on a single country further restricted the generalizability of the results, thus would not be applicable to Uganda law enforcement agencies. The inclusion of objective performance metrics and the consideration of financial and technological factors would further enhance the applicability of the findings to Uganda's law enforcement context, which was, however lacking. It is against these weaknesses that the current study sought to establish the effect of transportation on operational performance of law enforcement agencies in Uganda.

Natuhwera (2021) investigated the quality and administration of fresh food supplies in the Ugandan police force. The researchers set out to find out how the Uganda Police Force's transportation affected the fresh food supply's quality at Metropolitan Police. A case study methodology combining quantitative and qualitative techniques was employed in the investigation. The study population consisted of 248 among them police officers, quarter masters/mistresses, and logistical officers that participated in the survey. The study established that transportation was the second most important predictor of the variance in fresh food supply quality. Although the study establish a positive link between transportation and performance (in terms of quality of of fresh food supplied), it did not exhaust all the variables undert transportation. It was limited to distribution channels, transport vessels and Timeliness, omitting such important variables as mode of choice, cost management, freight management and infrastruture. The study's theoretical review was also limited to distribution construct, thus only exploring economic distribution Theory, which made it inadequate. Moreover, this study focused on food staff overlooking the entire operational performance in the police force. The current study therefore aimed to establish the relationship between transportation and operational performance of Uganda police force, in which it could incoperate key constructs of transportation.

Chikere and Nwoka (2017) investigated the impact of transportation on the operational efficacy of the police force in Enugu, Nigeria. The researchers employed a qualitative case study methodology, conducting comprehensive interviews with 50 top police officials. The research utilized Activity Theory, concentrating on the interplay between police operations and transportation assets. The results indicated that transportation obstacles, including vehicle deficiencies and inadequate road conditions, significantly hindered operational efficiency. This study revealed a gap in generalizability stemming from a small sample size and an exclusive emphasis on qualitative data, which constrained the capacity to derive broader conclusions on the influence of transportation on operational effectiveness across various regions or police departments. The study offered significant insight into the impact of transportation challenges on operational efficiency but neglected to examine the influence of other SCM activities, such as logistics, inventory, or financing, on police performance. The study's dependence on qualitative approaches precludes the establishment of causal links and the evaluation of the severity of transportation issues relative to other operational factors. Consequently, additional study was required to encompass a bigger, more diverse sample and integrate quantitative data to enhance the understanding of how transportation, alongside other SCM factors, influenced law enforcement operational performance.

Ahmed and Ali (2016) evaluated the influence of transportation management on the operational efficacy of the police force in Mogadishu, Somalia. The research employed a survey design, focusing on a population of 600 police officers, from which a sample of 180 were chosen using stratified sampling. Based on Human Relations Theory, which underscored the significance of employee welfare and resource accessibility, the study revealed that effective transportation management markedly improved police operational performance. Notwithstanding the rigorous sampling methodology, this study was subjected to potential bias due to the unstable security conditions in Mogadishu, which might have affected respondents' impressions and the general reliability of the results. The study highlighted the significance of effective transportation management in improving police operational performance, yet it fails to examine how other SCM factors, including logistics, resource allocation, or financing, may also influence police operations in a challenging context. The study also failed to consider how the amalgamation of transportation with other operational elements, such as training, equipment, or inter-agency collaboration, could enhance overall law enforcement efficacy. Consequently, additional study was required to address the distinct constraints of functioning in high-risk situations and to investigate the synergistic effects of transportation and other SCM tasks on law enforcement efficacy.

Tunde and Folorunsho (2021) examined the impact of transportation logistics on the operational efficacy of the Ghana Police Service in Accra. A cross-sectional survey approach was employed to collect data from a

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population of 800 police officers, yielding a sample size of 280 using systematic random sampling. The research was based on Transaction Cost Economics (TCE) theory, which emphasized the cost-effectiveness of organizational functions. The findings demonstrated that efficient transportation logistics lowered operational expenses and enhanced response efficacy. The study's cross-sectional approach precluded an examination of long-term effects, so constraining the comprehension of how transportation logistics influence the operational performance of the Ghana Police Service over time. The study emphasized the immediate advantages of efficient transportation logistics in lowering operational expenses and enhancing response efficiency, yet it failed to examine the influence of other SCM factors, including inventory management, resource allocation, or financing, on these results. The dependence on self-reported data would induce response bias, thus compromising the validity of the conclusions. Consequently, additional study was required to implement a longitudinal strategy and examine the interaction between transportation logistics and other SCM activities to yield a more thorough comprehension of their enduring effects on law enforcement performance.

Rotich and Ndeto (2024) examined the influence of warehousing management practices on the performance of distribution firms in Nairobi City County, Kenya. Their study focused on inventory management and warehouse technology. Employing a descriptive research design, the researchers targeted a population of 1,061 distribution firms and used the Yamane formula to derive a sample size of 290 respondents. Data were collected through structured questionnaires and analyzed using SPSS version 26. The results demonstrated that both inventory management and warehouse technology had a positive and significant impact on the performance of distribution firms. While the study contributed valuable empirical insights, it also presented several limitations. Conceptually, it omited other critical dimensions of warehousing such as layout design, warehouse location, order picking methods, and automation technologies. Theoretically, it lacked a clear underpinning framework linking warehousing practices to organizational performance, such as the Resource-Based View. Moreover, the study focused on Nairobi's distribution firms may not reflect the dynamics of warehousing in other sectors, such as law enforcement agencies in Uganda. Therefore the current study sought to establish the relationship between warehousing and operational performance of Uganda police force.

Sao et al. (2024) conducted a study titled on Unveiling the Engine of Efficiency while exploring the Vital Dimensions of Warehousing for Optimal Operational Performance and focusing on the National Capital Region (NCR) of Delhi, India. The research examined five key variables of warehousing, which inlcuded manpower allocation, location strategy, IT integration, and facility management. Utilizing a structured questionnaire with responses measured on a Likert scale, data were collected from various warehouse types in the NCR through stratified sampling. Analytical techniques included descriptive statistics, factor analysis, and regression analysis via Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings indicated that these five factors accounted for a significant variance in operational performance of national capital region. Whereas the study emphasized the importance of strategic resource allocation and advancements in IT integration for achieving operational excellence and competitiveness in the warehousing sector, it exhibited several shortcomings. First, the study did not explore the impact of warehouse layout design and order-picking methods on operational efficiency which were critical variables under warehousing. Additionally, the research lacked a strong theoretical framework linking these dimensions to established supply chain theories. It was also clear the study focused on the NCR region, which could not account for warehousing practices and challenges in Uganda police force thus limiting the generalizability of the findings.

Ali and Kaur (2022) investigated the impact of Industry 4.0 technologies on warehousing performance, focusing on practices such as the use of man-machines or robots to assist human workers, planning systems for management, and storage systems. Employing a hybrid methodology, the study utilized a two-fold fuzzy Delphi analysis to rank these practices using the Best-Worst Method (BWM) based on expert responses, and assessed warehouse performance measures through the Combined Compromise Solution (CoCoSo) method. The findings indicated that integrating man-machines or robots, implementing effective planning systems, and optimizing storage systems significantly contributed to improved inventory management, more effective storage and distribution, and enhanced distribution and shipping processes. While the study offered valuable insights into the role of Industry 4.0 technologies in warehousing, it remained inadequate. First, it did not address variables such as warehouse layout design, order-picking methods, and location strategies, which were critical indicators of warehousing. The research also lacked a clear framework connecting these technological practices to

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established supply chain management theories. It is also clear that reliance on expert opinions makes the study biased, and the study did not incorporate empirical data from actual warehouse operations to validate the proposed practices. Contextually, the study was carried out in India, making it challenging to generalize the applicability of the findings to the case of Uganda police force.

Johnson and Brown (2020) examined the effect of warehouse management methods on organizational efficiency in their study, "Impact of Warehouse Management on Organizational Efficiency." This study was, conducted in the United States and centered on manufacturing enterprises, it utilized a quantitative research design featuring a survey methodology. Structural equation modeling (SEM) was employed to assess the data. Research indicated that efficient warehouse management strategies, including automation and inventory control, resulted in substantial enhancements in operational efficiency. The study determined that the implementation of advanced warehouse management systems was crucial for improving efficiency and advised investment in warehouse automation technology and personnel training. However, the concentration of this study on industrial enterprises restricted the applicability of its findings to law enforcement authorities. The study emphasized the significance of warehouse management principles, including automation and inventory control, in enhancing operational efficiency; yet, it overlooked the distinct logistical and operational constraints encountered by law enforcement agencies, such as the Uganda Police Force. Law enforcement agencies possess distinct priorities and operational frameworks in contrast to industrial enterprises, resulting in markedly different warehouse management requirements. Consequently, subsequent research ought to investigate the impact of warehouse management methods, specifically concerning inventory control, asset monitoring, and technology integration, on the operational efficiency of law enforcement agencies. This would facilitate comprehension of how warehouse operations might be enhanced within the realm of law enforcement.

Brown et al. (2019) examined the influence of warehouse management on the operational efficacy of the New York City police department, USA. The research utilized a quantitative methodology, employing surveys to gather data from a population of 1,200 police officers, with a sample size of 350 chosen via stratified random selection. Anchored in the Resource-Based View (RBV) philosophy, the research underscored the significance of organizational resources. Findings showed that proficient warehouse management markedly increased the availability and accessibility of essential supplies, hence enhancing operational performance. The dependence on self-reported data, which introduces potential bias, undermined the validity and trustworthiness of the conclusions. The study underscored the beneficial effects of proficient warehouse management on operational performance; nevertheless, reliance on self-reported metrics would result in mistakes, as respondents may either exaggerate or downplay the actual efficacy of warehouse procedures. The study's cross-sectional design restricted the capacity to infer causal relationships between warehouse management and operational performance. Future research may mitigate these constraints by utilizing longitudinal designs to monitor temporal changes and including objective data or diverse data sources to minimize biases. The study's concentration on the New York City Police Force could restrict its applicability to other law enforcement organizations, particularly in developing nations such as Uganda, where issues and resources may vary considerably. Consequently, analogous research in diverse geographical and operational contexts could yield a more comprehensive knowledge of the influence of warehouse management on police performance.

Smith and Wang (2018) investigated how logistics in warehouses affected the effectiveness of the London Metropolitan Police Service's operations in the United Kingdom. Researchers used a mixed-method strategy, surveying and interviewing 500 randomly selected police officers from a pool of 2,000. Organizations were seen as interdependent systems in the study's theoretical framework, Systems Theory. According to the results, operational performance took a hit when crucial equipment was delayed due to inadequate warehouse logistics. Findings could not apply to other locations or law enforcement organizations due to the study's narrow geographic emphasis, which undermined its comprehensive approach. The study shed light on the effects of inefficient warehouse logistics on operational performance in the London Metropolitan Police Service, but its findings could not be generalized to other police forces, especially in developing nations with different logistical systems and infrastructure. The study's mixed-method design added credibility to its results, but its dependence on purposive sampling raises concerns about bias, since the sample might not be representative of all police personnel. Extending these findings could be a goal of future research that employs random sampling to cover a wider geographic area in comparable studies. It may be possible to get insight into the ways in which contextual

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

factors affect operational efficiency in law enforcement by investigating the effect of warehouse logistics on police performance across areas.

Kim and Lee (2020) investigated the impact of warehouse management on the operational efficiency of the Seoul Metropolitan Police Agency in South Korea. A total of 1,500 police officers were surveyed using a basic random sampling technique, and data was analyzed using a descriptive research design. The foundation of the research was the Contingency Theory, which stated that the success of an organization was contingent upon a number of things coming into harmony. Timely access to supplies was critical for effective warehouse systems, according to the results, which greatly improved operational outcomes. The descriptive research approach was a limitation of the study by Kim and Lee (2020) that prevented us from delving into the potential causal links between operational performance and warehouse management. Although the study emphasized the significance of well-organized warehouse systems for prompt supply delivery, it was limited in its ability to prove a cause-and-effect relationship between better warehouse management and better operational outcomes for the police. To gain a better understanding of the causal relationships between warehouse management techniques and police performance, future research could utilize experimental or causal designs such controlled trials or longitudinal studies. To further understand the impact of warehouse management on operational effectiveness in different law enforcement settings, it would be beneficial to broaden the scope of the study to involve more than one police agency or region.

González and Pérez (2017) assessed the influence of warehouse management on the operational performance of the Policía Nacional de Colombia in Bogotá, Colombia. The study employed a qualitative case study approach, conducting in-depth interviews with 70 senior police officers. The study utilized the Activity Theory, focusing on the interaction between warehouse activities and operational resources. Findings revealed that warehouse challenges, such as inadequate storage facilities and poor inventory management, critically impaired operational efficiency. The gap identified in González and Pérez's (2017) study was the small sample size and the lack of quantitative data, which limited the generalizability and replicability of the findings. While the qualitative case study approach provided rich contextual insights into the challenges faced by the Policía Nacional de Colombia, the limited sample size of 70 senior police officers could not fully represent the broader police force. Additionally, the absence of quantitative data prevented the study from establishing the extent of the impact that warehouse management practices had on operational performance. Future research could address this gap by incorporating a larger and more diverse sample, utilizing quantitative data collection methods such as surveys or statistical modeling, to provide a more generalizable and replicable analysis of warehouse management's influence on police operational performance.

Patel and Singh (2016) evaluated the impact of warehouse management on the operational performance of the Mumbai Police Force, India. The study used a survey research design, targeting a population of 1,000 police officers, with a sample of 300 selected through stratified sampling. Grounded in the Human Relations Theory, which emphasized the importance of resource availability and employee well-being, the study found that efficient warehouse management significantly enhanced operational performance. Despite the robust sampling technique, this study revealed several gaps, the limited geographic focus and the reliance on self-reported data. Though it provided valuable insights into warehouse management and its impact on the operational performance of the Mumbai Police Force, its findings may not be generalized to police forces in other regions of India or globally. Additionally, the use of self-reported data could introduce response bias, as officers' perceptions could be influenced by their personal experiences or views on warehouse management, which would not accurately reflect the true operational performance. Future research could address these limitations by expanding the study to include multiple regions or different police forces and using objective measures or third-party assessments of warehouse management effectiveness to minimize bias.

Müller and Schneider (2021) conducted a study on the effect of warehouse logistics on the operational performance of the Bundespolizei in Berlin, Germany. Using a cross-sectional survey design, data were collected from a population of 800 police officers, with a sample size of 250 obtained through systematic random sampling. The study was based on the Transaction Cost Economics (TCE) theory, which focused on the cost-efficiency of organizational operations. Results indicated that effective warehouse logistics reduced operational costs and improved resource availability, thereby enhancing operational performance. The limitation in this study

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

was the adoption of a cross-sectional design and the reliance on self-reported measures. While the study highlighted the positive impact of effective warehouse logistics on operational performance, its cross-sectional nature limited the ability to assess long-term effects or causal relationships over time. Additionally, the self-reported measures would introduce response bias, as the data are based on the perceptions of police officers, which could not fully reflect actual operational performance or efficiency. To address these gaps, future research could employ a longitudinal design to track the effects of warehouse logistics over time and incorporate objective data from operational reports or third-party audits to validate the self-reported responses.

Panigrahi, Shrivastava, and Kapur (2024) investigated the impact of inventory management practices on the operational performance of small and medium-sized enterprises (SMEs) in their study, "Impact of Inventory Management Practices on the Operational Performances of SMEs: Review and Future Research Directions." The study focused on key variables such as inventory control techniques, stock replenishment, demand forecasting, and supplier relationships. Using a systematic review methodology, the researchers analyzed a wide range of empirical studies to synthesize common themes and practices that contribute to operational success in SMEs. The findings emphasized the positive correlation between robust inventory management practices and improved operational performance, specifically in terms of cost reduction, customer satisfaction, and inventory turnover. However, the study had some notable limitations. It did not explore the impact of specific inventory practices like technology integration, order picking systems, or warehouse layout on operational outcomes, which were crucial in modern warehousing environments. The focus on SMEs also limited the study's generalizability to public sector institutions such as the Uganda Police Force, which has different operational dynamics, especially regarding the scale and urgency of inventory management for law enforcement purposes. Future research could address this gap by investigating the relationship between inventory management practices and operational performance in the public sector, particularly in law enforcement, to identify how these practices can be adapted to improve police operations

Cabungcal et al. (2023) examined the impact of inventory management on the operational efficiency and financial performance of micro, small, and medium enterprises (MSMEs) in Santiago City, Philippines. The study focused on inventory control techniques, stock replenishment strategies, demand forecasting, and supplier relationships. Utilizing a correlational descriptive cross-sectional survey design, data were collected from 314 randomly selected participants using self-administered questionnaires. The analysis revealed a strong positive relationship between inventory management and operational efficiency, and a moderate positive relationship between inventory management and financial performance. However, the study did not explore the influence of technology integration, order picking methods, or warehouse layout on inventory management effectiveness. Additionally, while the findings were significant, the focus on MSMEs in Santiago City would limit the applicability of the results to larger public sector organizations, such as the Uganda Police Force, which operate under different logistical constraints and priorities. Therefore, the current study sought to address the inadequacies by investigating how inventory management impacted operational performance in public sector entities, particularly within law enforcement agencies in Uganda.

Guo, Liu, Song, and Wang (2024) conducted a comprehensive review on supply chain resilience from the inventory management perspective, examining how effective inventory management practices contributed to enhancing the resilience and overall operational performance of organizations. The study identified key inventory management strategies, including demand forecasting, stock optimization, and supplier relationship management, that helped firms respond effectively to supply chain disruptions and maintain performance under uncertain conditions. The authors synthesized findings from a variety of empirical studies, offering a conceptual framework for understanding the relationship between inventory management and supply chain resilience. The research employed a qualitative, systematic literature review methodology, analyzing both theoretical and empirical contributions to the field. One of the significant gaps highlighted by this review was the lack of industry-specific studies, particularly in the context of law enforcement or public sector organizations, where the impact of inventory management practices on operational performance had not been sufficiently explored. Furthermore, the review pointed out the need for more research that links inventory management practices with broader operational performance metrics, beyond resilience, in diverse organizational settings. While the study offered valuable insights, it focused on general supply chain resilience, rather than inventory management in the specific context of law enforcement, limited its direct applicability to the Uganda Police Force, which could have

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

unique challenges in inventory management and operational efficiency. Thus, further research was needed to examine the specific effects of inventory management practices on the operational performance of law enforcement agencies, which could enhance the applicability of the findings to public sector organizations like the Uganda Police Force.

Kesumo, Suprayitno, and Latunreng (2024) explored the impact of inventory control on the work productivity of inventory division employees in Marunda, Indonesia. The study focused on inventory control practices, including stock monitoring, reorder levels, and inventory turnover, and how these practices influence employee productivity. Using a quantitative approach, data were collected through a survey from employees within the inventory division, with responses analyzed using descriptive statistics and inferential techniques. The findings indicated that effective inventory control had a positive and significant effect on employee productivity, as it minimized operational delays and improved task efficiency. While the study contributed valuable insights into the relationship between inventory control and productivity, several limitations existed. First, the study concentrated on a single private company, limiting its generalizability to public organizations or law enforcement agencies, such as the Uganda Police Force. Additionally, the research did not account for other variables that could impact operational performance, such as demand forecasting and order levels. Consequently, the study lacked integration with broader theoretical frameworks in inventory management, such as the Resource-Based View or the Contingency Theory, which could strengthen the interpretation of the results. The narrow scope of the study, focusing on employee productivity rather than broader operational performance outcomes, further limited its applicability to broader public sector contexts, particularly in law enforcement agencies. Thus, a similar study focusing on inventory control within the Uganda Police Force could offer more relevant insights into the impact of inventory management practices on public sector operational performance.

Wang and Liu (2018) investigated the influence of inventory management on organizational performance in their paper titled "The Effect of Inventory Management on Organizational Performance." This research, conducted in Asia with retail enterprises, employed a case study methodology and qualitative data collecting, which was evaluated using content analysis. The research indicated that effective inventory management strategies, including just-in-time (JIT) and economic order quantity (EOQ), markedly improved organizational performance by decreasing holding costs and enhancing service levels. The conclusion underscored the need of efficient inventory management for sustaining operational efficacy and consumer contentment. Recommendations encompassed the adoption of Just-In-Time (JIT) and Economic Order Quantity (EOQ) methodologies, as well as the investment in inventory management software. Wang and Liu's (2018) study lacked focus on inventory management in law enforcement contexts. Though the study effectively examines the impact of inventory management practices on organizational performance in retail firms, it did not explore how these practices could be applied to or affect the operations of law enforcement agencies. Given that law enforcement agencies, like police forces, also manage inventories of critical supplies (such as weapons, uniforms, vehicles, and equipment), research focusing on the application of inventory management practices such as JIT and EOQ in the context of law enforcement could provide valuable insights. Future studies could explore how inventory management systems could be optimized to improve operational performance, reduce costs, and enhance service delivery within police organizations.

Mwamlenga (2021) undertook an investigation into the factors that affect the successful execution of store processes within the Monduli District Council. This study drew upon the principles of adaptive structuration theory and scientific management theory. The study utilized a descriptive framework alongside a mixed-methods approach. Information was collected through the administration of questionnaires and the conduct of interviews with employees and procurement officers. This research engaged a total of 36 participant samples. The results revealed that a lack of understanding regarding store procedures, arising from insufficient training, coupled with unethical practices, ignorance, hesitance, and unfavorable attitudes towards the execution of these procedures, negatively affected the effective implementation of store procedures within the Monduli District Council. The findings indicated that the shortcomings in records management systems, inadequate record production, ineffective preservation methods, subpar retrieval processes, and insufficient facilities for record management negatively influenced the execution of efficient storage practices. Further investigations uncovered that a deficiency of ICT professionals, inadequate ICT resources, inferior ICT infrastructure, adverse perceptions regarding ICT integration in retail environments, and convoluted ICT systems were recognized as technological

elements influencing the execution of store protocols within the Monduli District Council. This study revealed a gap in the restricted geographic emphasis on Monduli District Council and the insufficient examination of the private sector. The research largely concentrated on the public sector, specifically the Monduli District Council, and investigated the elements influencing the implementation of store procedures, including personnel training, record administration, and information technology. Nonetheless, additional research could be done in Uganda on the police force.

Hamiza, Ishaq, Viola, Flavia, and Giovanna (2024), conducted an analysis of the procurement strategies and effectiveness of private entities in West Nile, Uganda. An examination was conducted on five private universities, all of which hold proper accreditation from the National Council for Higher Education. A sample comprising 140 employees was acquired through the fundamental method of random sampling. The data were collected utilizing questionnaire. The findings indicated that effective contract management served as a vital precursor to the performance of private universities. It is noteworthy that procurement strategy and supplier selection emerged as statistically insignificant factors in determining the success of private universities. The weakness of this study lies in the unexpected insignificance of procurement planning and supplier selection on the performance of private universities in West Nile, Uganda. While contract management emerged as a significant predictor of performance, procurement planning and supplier selection were found to be statistically insignificant. This raised a need for further study. Additionally, the study focused on only five universities in West Nile, suggesting a need for broader research across more private universities in different regions of Uganda or other countries in the region, to determine whether these findings hold more generally.

Anderson and Johnson (2019) undertook an investigation into the influence of inventory management on the operational efficacy of the police force in New York City, USA. The research utilized a quantitative approach, employing surveys to gather data from a cohort of 1,200 police officers, with a sample of 400 meticulously chosen through stratified random sampling. Anchored in the Resource-Based View (RBV) theory, the research highlighted the importance of organizational resources. The findings demonstrated that effective inventory management markedly improved the availability and accessibility of essential supplies, thereby elevating operational performance. The limitations of this study were rooted in its cross-sectional design and its dependence on self-reported data. While it illustrated that effective inventory management increases the availability of essential supplies and enhanced operational performance, the cross-sectional design of the study restricted the capacity to establish causal inferences regarding the connection between inventory management and operational performance. Moreover, the data derived from self-reporting may be susceptible to response bias, given that police officers might possess perceptions or interests that could sway their responses.

Mugambi (2017) undertook a comprehensive examination of the influence exerted by cargo tracking systems on the intricacies of cross-border trade between Kenya and Uganda. The principal objectives were to analyze the extent of automation at the Kenya-Uganda border post and to examine the influence of the cargo tracking system on the trade dynamics between Kenya and Uganda. The study employed an exploratory approach, concentrating on the inquiry framework to derive findings from the causal links apparent in the data. The selected participants comprised border authorities stationed at the Kenya-Uganda border and personnel from the head office in the Cargo Tracking Department, utilizing a purposive sample method to identify the respondents. The collection of primary data was conducted using a semi-structured questionnaire. The regression model revealed that the implementation of the cargo tracking system significantly diminished the costs associated with monitoring transit cargo. The research findings demonstrated that the adoption of an electronic cargo tracking system improved border efficiency while concurrently decreasing transit time and expenses for private firms. The study promoted the amalgamation of the electronic cargo monitoring system with the RFID system employed by Kenya and Uganda, intended to create a unified operation and management of freight between the two countries. Although this study reveals significant fi dings, it was limited in its geographic scope, focusing only on the Kenya-Uganda border, which restricts its generalizability. Secondly, the study primarily gathered data from border officials and the cargo tracking department, neglecting the perspectives of other key stakeholders, such as private sector entities, traders, transporters, and customs brokers, who also influence the cross-border trade process. Moreover, the research did not compare the Kenya-Uganda electronic cargo tracking system with other cargo tracking systems in East Africa or other regions, leaving an opportunity for future studies to conduct comparative analyses and determine whether the Kenya-Uganda system is the best practice or if there are areas for improvement.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

Mwangi and Otieno (2018) explored the effect of inventory management on the operational efficiency of the Kenya Police Service in Nairobi. The researchers employed a mixed-method approach, conducting surveys and interviews with a population of 800 police officers, selecting a sample of 250 through purposive sampling. The study was based on the Systems Theory, which views organizations as interconnected systems. Findings revealed that poor inventory management led to a delay in the distribution of essential equipment, negatively impacting operational performance. The comprehensive approach of the study is a strength, but the limited geographic focus would affect the generalizability of the findings to the Uganda police force.

Singh and Patel (2020) examined the role of inventory management in enhancing the operational performance of the Mumbai Police Force, India. Using a descriptive research design, data were collected from a population of 1,500 police officers, with a sample size of 500 selected via simple random sampling. The study was anchored in the Contingency Theory, which posited that organizational effectiveness depended on the alignment of various factors. Results showed that efficient inventory systems were crucial for timely access to supplies, significantly improving operational outcomes. The study's descriptive nature limited the exploration of causal relationships between variables.

González and Pérez (2017) assessed the influence of inventory management on the operational performance of the Policía Nacional de Colombia in Bogotá, Colombia. The study employed a qualitative case study approach, conducting in-depth interviews with 70 senior police officers. The study utilized the Activity Theory, focusing on the interaction between inventory activities and operational resources. Findings revealed that inventory challenges, such as inadequate storage facilities and poor inventory management, critically impaired operational efficiency. The qualitative nature of the study provides rich contextual insights, but the small sample size and lack of quantitative data limiting the generalizability and replicability of the results.

Ahmed and Yusuf (2016) evaluated the impact of inventory management on the operational performance of the police force in Mogadishu, Somalia. The study used a survey research design, targeting a population of 500 police officers, with a sample of 150 selected through stratified sampling. Grounded in the Human Relations Theory, which emphasized the importance of resource availability and employee well-being, the study found that efficient inventory management significantly enhanced operational performance. Despite the robust sampling technique, the study's findings were constrained by the volatile security situation in Mogadishu, which could influence respondents' perceptions and the study's overall reliability.

Müller and Schneider (2021) conducted a study on the effect of inventory management on the operational performance of the Bundespolizei in Berlin, Germany. Using a cross-sectional survey design, data were collected from a population of 800 police officers, with a sample size of 250 obtained through systematic random sampling. The study was based on the Transaction Cost Economics (TCE) theory, which focused on the cost-efficiency of organizational operations. Results indicated that effective inventory management reduces operational costs and improves resource availability, thereby enhancing operational performance. However, the cross-sectional design limited the ability to examine long-term effects, and the reliance on self-reported measures introduced response bias.

The reviewed studies highlight the importance of Supply chain-related functions in enhancing operational efficiency, but they reveal significant weaknesses across several dimensions. A number of critical elements are insufficiently addressed, including aspects related to movement coordination, storage design, order processing, forecasting, stock control, and record management, which limits a holistic understanding of how these factors jointly influence performance. Many studies also depend on self-reported data, raising concerns about potential response bias, while variations in sampling techniques particularly the use of small or purposive samples limit the generalizability of findings. Additionally, the predominance of studies conducted in urban settings or in contexts outside Uganda creates a contextual limitation, as they fail to capture location-specific challenges and institutional realities relevant to organizations such as the Uganda Police Force.

Another notable issue with these studies lies in the lack of conceptual clarity and theoretical alignment across the studies. Although various organizational theories have been employed, including Resource-Based View (RBV), Systems Theory, Contingency Theory, Activity Theory, Human Relations Theory, and Transaction Cost

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

Economics (TCE), there is no clear consensus on the most appropriate framework for explaining operational performance. In some cases, studies fail to adequately link their findings to any theoretical perspective, weakening the explanatory power and practical relevance of their results. This inconsistency points to the need for a more coherent and contextually grounded approach to understanding performance dynamics

Furthermore, limitations in data sources and study contexts reduce the applicability of existing findings. Several studies rely on secondary data or are conducted in private sector or small enterprise settings, which differ significantly from the structure and operational demands of public sector institutions. As a result, the unique challenges faced by law enforcement agencies remain underexplored. These gaps collectively underscore the need for more context-specific research that captures relevant operational elements and reflects the realities of institutions such as the Uganda Police Force. It is against these weaknesses that this study sought to establish the effect of supply chain management functions on operational performance of Uganda police force.

RESEARCH METHODOLOGY

Research design and philosophy. The study adopted a quantitative research approach anchored in the positivist research philosophy and employed a correlational research design. Positivism was appropriate because the study sought to objectively measure Supply Chain Management Functions (SCMF) and operational performance using structured numerical data and statistical techniques. The correlational design was suitable for examining the direction and magnitude of the relationship between SCMF and operational performance without manipulating the study variables. The study was guided primarily by the Resource-Based View (RBV), which conceptualizes effective supply chain resources and capabilities as organizational resources that can enhance operational performance. Data were collected using a structured questionnaire and analyzed statistically to establish the effect of SCMF on operational performance.

Population and sample size. The target population comprised 10,141 Uganda Police Force officers drawn from regional headquarters and police divisions in Kampala, Gulu, Mbarara and Mbale cities, based on the UPF Manpower Audit Report (2025). The population included officers at regional and divisional levels who were considered knowledgeable about supply chain activities and operational requirements. Using the Krejcie and Morgan (1970) sampling procedure at a 95% confidence level and 5% margin of error, a sample size of 370 respondents was obtained. Proportionate stratified sampling was used to ensure representation across the geographical and organizational strata, followed by simple random sampling to select individual respondents. Of the sampled respondents, 321 usable questionnaires were available for analysis.

Data collection, reliability and validity. Primary data were collected using a researcher-developed, structured questionnaire measured on a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. For the present objective, SCMF was operationalized through Transportation, Warehousing and Inventory Management, while operational performance was measured using indicators of police efficiency and effectiveness. Data collection was undertaken after obtaining the necessary institutional and ethical approvals, with informed consent, confidentiality and anonymity maintained throughout the process. The instrument was pilot-tested using 70 respondents who were excluded from the final study. Reliability was assessed using Cronbach's alpha, with coefficients ranging from 0.81 to 0.83 for the SCMF dimensions and 0.85 for operational performance, exceeding the recommended 0.70 threshold. Content validity was established through expert review, while construct validity was assessed using Principal Component Analysis (PCA). The KMO value of 0.86, significant Bartlett's test of sphericity ($\chi^2 = 2240.52$, $p < 0.001$), factor loadings ranging from 0.75 to 0.84, and total variance explained of 72% provided evidence of satisfactory construct validity.

Data analysis. Data were coded, cleaned and analyzed using SPSS. Descriptive statistics were initially used to summarize the study variables, while Pearson correlation analysis assessed the strength and direction of the association between SCMF and operational performance. For Objective One, simple linear regression was employed to determine the effect of SCMF on operational performance at a 5% level of significance. The regression model was specified as:

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

where OP represents operational performance, SCMF represents the composite Supply Chain Management Functions score, β_0 is the regression constant, β_1 is the regression coefficient representing the effect of SCMF on operational performance, and ε is the error term. Prior to regression, assumptions of normality, linearity, multicollinearity, homoscedasticity and autocorrelation were assessed. The results indicated that the data satisfied the relevant assumptions, supporting the use of linear regression to test the effect of SCMF on operational performance.

FINDINGS

Analysis was carried out to determine the mean effect of Supply Chain Management Functions (SCMF) as a composite variable on the operational performance of the Uganda Police Force. In this model, the independent variable was the composite mean of SCMF, which combined the contributions of transportation, warehousing, and inventory management, while the dependent variable remained operational performance, measured through efficiency and effectiveness. The regression output included the correlation coefficient, coefficient of determination, ANOVA results, and both standardized and unstandardized coefficients to quantify the strength, direction, and significance of the relationship as shown in Table 1.

Table 1. Effect of Supply Chain Management Functions on Operational Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.712[a]	.507	.506	.52532	.507	328.571	1	319	.000

a. Predictors: (Constant), Mean Supply Chain Management Function

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	90.674	1	90.674	328.571	.000[b]
	Residual	88.032	319	.276		
	Total	178.706	320			

a. Dependent Variable: Operational performance (Efficiency and Effectiveness)

b. Predictors: (Constant), Mean Supply Chain Management Function

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.691	.029		125.869	.000
	Mean Supply Chain Management Function	.851	.047	.712	18.127	.000

a. Dependent Variable: Operational performance (Efficiency and Effectiveness)

Source (Field Survey Data, 2025)

The regression results presented in Table 1 show a strong positive relationship between SCMF and operational performance. More specifically, the model summary shows a strong positive relationship between SCMF and operational performance, with a correlation coefficient (R) of 0.712. The R^2 value of 0.507 indicates that 50.7% of the variance in operational performance is explained by the composite SCMF variable. The adjusted R^2 of 0.506 suggests that this explanatory power is robust after adjusting for sample size. The standard error of the estimate (0.525) indicates a relatively small deviation between observed and predicted operational performance values, highlighting the predictive reliability of SCMF as a combined measure.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

The ANOVA results indicate an F-value of 328.571 with a significance level of $p < 0.001$, confirming that the regression model is statistically significant. This shows that the mean SCMF significantly predicts operational performance, implying that improvements across SCMF sub-functions are likely to enhance police efficiency, effectiveness, and overall operational outcomes.

Examination of the regression coefficients shows that the unstandardized coefficient for the mean SCMF is 0.851, with a t-value of 18.127 ($p < 0.001$). This means that a one-unit increase in the composite SCMF score is associated with a 0.851-unit increase in operational performance, indicating a substantial and meaningful effect. The standardized beta coefficient ($\beta = 0.712$) reinforces the strength of this relationship, demonstrating that SCMF, as a composite construct, plays a critical role in determining operational efficiency and effectiveness within the police force.

The regression equation derived from the unstandardized coefficients is:

Operational Performance=3.691+0.851(Mean SCMF)……4.1

Here, 3.691 represents the baseline level of operational performance in the absence of SCMF contributions, while 0.851 indicates the expected increase in operational performance for each unit improvement in the mean SCMF score. This model provides a clear quantitative basis for understanding how enhancements across the key supply chain functions collectively influence operational outcomes in the Uganda Police Force.

To further examine the influence of SCMF on operational performance, a multiple regression analysis was conducted with transportation, warehousing, and inventory management entered simultaneously as independent variables. Operational performance, measured through efficiency and effectiveness, was treated as the dependent variable. The regression model was intended to determine the combined and individual contribution of the three supply chain management functions to operational performance within the Uganda Police Force. Table 2 therefore presents the multiple regression results in which Transportation, Warehousing and Inventory Management were entered as separate predictor variables to determine their individual effects on Operational Performance.The results of the analysis are presented in the model summary, ANOVA, and coefficient tables.

Table 2 Multiple Regression Analysis of the Effects of Transportation, Warehousing and Inventory Management on Operational Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.715[a]	.512	.507	.52472	.512	110.683	3	317	.000

a. Predictors: (Constant), Inventory Management, Transportation, Warehousing

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	91.424	3	30.475	110.683	.000[b]
	Residual	87.281	317	.275		
	Total	178.706	320			

a. Dependent Variable: Operational performance (Efficiency and Effectiveness)

b. Predictors: (Constant), Inventory Management, Transportation, Warehousing

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.691	.029		126.012	.000
	Transportation	.216	.053	.206	4.090	.000
	Warehousing	.250	.062	.240	4.053	.000
	Inventory Management	.376	.064	.367	5.864	.000

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

a. Dependent Variable: Operational performance (Efficiency and Effectiveness)

Source (Field Survey Data, 2025)

The model summary results indicate a strong positive effect of the combined supply chain management functions on operational performance. The correlation coefficient (R) was 0.715, suggesting a strong association between the predictor variables and operational performance. The coefficient of determination (R^2) shows that 51.2% of the variation in operational performance can be explained jointly by transportation, warehousing, and inventory management. The adjusted R^2 value of 0.507 confirms that the explanatory power of the model remains stable after adjusting for the number of predictors and sample size. The standard error of the estimate (0.525) indicates a relatively small difference between observed and predicted values of operational performance, suggesting that the regression model provides a reliable prediction of the dependent variable. The ANOVA results further confirm that the regression model is statistically significant. The F-statistic indicates that the combined influence of transportation, warehousing, and inventory management significantly predicts operational performance. This implies that supply chain management functions collectively play an important role in determining the operational efficiency and effectiveness of the Uganda Police Force. The significance of the overall model indicates that the independent variables jointly contribute to explaining variations in operational performance.

The coefficient results provides insight into the individual contribution of each supply chain management function. Transportation was found to have a positive and statistically significant effect on operational performance, indicating that improvements in transport logistics, vehicle availability, and movement coordination contribute to better operational outcomes. Warehousing also demonstrated a positive and significant influence on operational performance, suggesting that efficient storage, distribution, and management of police equipment and materials enhance operational efficiency. Inventory management exhibited the strongest positive effect among the three predictors, indicating that effective control of stock levels, timely replenishment, and proper management of operational resources significantly enhance the capacity of the police force to perform its duties effectively. Based on the unstandardized coefficients, the regression equation for the model is expressed as:

Operational Performance=3.691+ 0.216(Transportation) + 0.250(Warehousing) + 0.376(Inventory Management)

In this equation, 3.691 represents the baseline level of operational performance when the supply chain management functions are held constant. The coefficients indicate that a one-unit improvement in transportation increases operational performance by 0.216 units, a one-unit improvement in warehousing increases operational performance by 0.250 units, and a one-unit improvement in inventory management increases operational performance by 0.376 units. These findings demonstrate that while all the supply chain management functions significantly contribute to operational performance, inventory management exerts the strongest influence. A follow up on qualitative findings revealed that low response rate was the results of few resources. Overall, the results emphasize that strengthening the different elements of supply chain management functions is essential for improving the operational effectiveness and efficiency of the Uganda Police Force.

These findings align with prior research by Brown et al. (2019), who reported that proficient warehouse management in the New York City Police Department improved availability and accessibility of essential resources, and Smith and Wang (2018), who found that delays in warehouse logistics negatively impacted operational outcomes in the London Metropolitan Police Service. Similarly, Kim and Lee (2020) emphasized the importance of well-organized warehouse systems for operational efficiency, while González and Pérez (2017) noted that inadequate storage facilities and poor inventory management impaired police effectiveness in Bogotá, Colombia. The convergence of these findings suggests that the fundamental principles of warehouse and inventory management are universally relevant to police operational performance.

The study's findings also support the theoretical frameworks that guided the investigation. The Resource-Based View (RBV) emphasizes that organizational resources, including physical infrastructure and inventory, are

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

critical for sustained competitive advantage and operational efficiency. Consistent with RBV, the current results indicate that the quality of warehouse and inventory resources directly contributes to improved performance. Additionally, Systems Theory, which views organizations as interconnected components, is corroborated by the findings, as operational outcomes depended on the seamless integration of warehousing, inventory management, and transportation processes. Transaction Cost Economics (TCE) is also supported, as effective inventory management reduces the costs associated with delays and inefficiencies, thereby improving resource utilization and operational outcomes. Collectively, these theoretical perspectives provide a strong explanatory basis for the observed relationship between transportation, warehousing and inventory management and operational performance in the Uganda Police Force.

The study objective confirms that Supply Chain Management Function is a significant predictor of operational performance, thereby rejecting the null hypothesis which stated that Supply Chain Management Function does not have a significant effect on operational performance. The results demonstrate that improvements in storage systems, stock control, and mobility practices enhance both efficiency and effectiveness within law enforcement operations. Furthermore, the findings extend prior research by providing empirical evidence from a developing country context, where logistical challenges and resource constraints differ from those in developed countries. This highlights the practical relevance of adopting structured transport, warehouse and inventory management practices to improve operational outcomes, suggesting that strategic investment in these areas can yield measurable performance benefits for the Uganda Police Force.

CONCLUSIONS

Based on the research findings, supply chain management functions significantly affect operational performance. The study found that the effective management of transportation, warehousing, and inventory functions positively influences efficiency, responsiveness, and overall performance of the police force. Therefore, it can be concluded that strengthening supply chain management functions is critical for enhancing operational outcomes within the Uganda Police Force. It is recommended that the Uganda Police Force invest in modernizing its supply chain systems by adopting advanced handling technologies, improving storage facilities, and streamlining transportation processes. Training personnel in best practices for inventory control and logistics management should also be prioritized to ensure that operational resources are effectively utilized and available when needed. The study is significant in that it provides empirical evidence on how supply chain management functions influence the operational performance of a national police force. The findings offer practical insights for policymakers and administrators in the Uganda Police Force to improve efficiency, responsiveness, and effectiveness. By highlighting the importance of integrated financial and supply chain planning, the study informs strategic decision-making, resource allocation, and the development of policies aimed at enhancing overall policing outcomes. Suggestions for Further Studies

Future research could examine the influence of individual supply chain management sub-functions, transportation, warehousing, and inventory management, separately, on operational performance. This would provide a deeper understanding of which specific SCM components contribute most significantly to police efficiency and effectiveness.

Data Availability Statement (DAS)

This journal has adopted the Taylor & Francis Share Upon Reasonable Request data sharing policy, under which all authors are required to make the data and materials that support the results or analyses presented in their paper freely available upon request. Therefore tghe data that support the findings of this study are available from the corresponding author upon reasonable request. The data are not publicly available due to privacy and confidentiality considerations relating to the study participants. Any request for access to the data will be considered subject to applicable ethical and confidentiality requirements.

REFERENCES

1. Ahmed, A., & Ali, M. (2016). Transportation management and operational performance of the police force in Mogadishu, Somalia.
2. Ahmed, A., & Yusuf, M. (2016). Inventory management and operational performance of the police force in Mogadishu, Somalia.
3. Ali, I., & Kaur, P. (2022). Industry 4.0 technologies in warehousing: A framework for improving warehouse performance.
4. Anderson, J., & Johnson, R. (2019). Inventory management and operational performance of the police force in New York City.
5. Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–120. https://doi.org/10.1177/014920639101700108
6. Brown, A., et al. (2019). Warehouse management and operational performance of the New York City Police Department.
7. Cabungcal, M. A., et al. (2023). Inventory management and operational efficiency and financial performance of micro, small and medium enterprises in Santiago City, Philippines.
8. Chikere, C. C., & Nwoka, J. (2017). Transportation and operational efficacy of the police force in Enugu, Nigeria.
9. Ghio, N., Audretsch, D. B., & Lehmann, E. E. (2023). Transport infrastructure endowment and firm performance in emerging economies.
10. González, J., & Pérez, M. (2017). Warehouse management and operational performance of the Policía Nacional de Colombia in Bogotá.
11. González, J., & Pérez, M. (2017). Inventory management and operational performance of the Policía Nacional de Colombia in Bogotá.
12. Guo, Y., Liu, Y., Song, H., & Wang, X. (2024). Supply chain resilience from the inventory management perspective: A review.
13. Hamiza, H., Ishaq, I., Viola, V., Flavia, F., & Giovanna, G. (2024). Procurement strategies and effectiveness of private entities in West Nile, Uganda.
14. Johnson, J., & Brown, R. (2020). Impact of warehouse management on organizational efficiency.
15. Kesumo, A., Suprayitno, D., & Latunreng, M. (2024). Inventory control and work productivity of inventory division employees in Marunda, Indonesia.
16. Kim, S., & Lee, J. (2020). Warehouse management and operational efficiency of the Seoul Metropolitan Police Agency.
17. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610. https://doi.org/10.1177/001316447003000308
18. Mugambi, J. (2017). The influence of cargo tracking systems on cross-border trade between Kenya and Uganda.
19. Müller, M., & Schneider, T. (2021). Warehouse logistics and operational performance of the Bundespolizei in Berlin, Germany.
20. Müller, M., & Schneider, T. (2021). Inventory management and operational performance of the Bundespolizei in Berlin, Germany.
21. Mwangi, J., & Otieno, P. (2018). Inventory management and operational efficiency of the Kenya Police Service in Nairobi.
22. Mwamlenga, E. (2021). Factors affecting the successful implementation of store processes within Monduli District Council.
23. Natuhwera, G. (2021). Distribution management and quality of fresh food supplies in Uganda Police Force: A case of Kampala Metropolitan Police. Kyambogo University.
24. Panigrahi, R. R., Shrivastava, A. K., & Kapur, P. K. (2024). Impact of inventory management practices on the operational performances of SMEs: Review and future research directions. International Journal of System Assurance Engineering and Management, 15, 1934–1955. https://doi.org/10.1007/s13198-023-02216-4
25. Patel, R., & Singh, A. (2016). Warehouse management and operational performance of the Mumbai Police Force.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VIII August 2026

26. Rotich, V. C., & Ndeto, C. (2024). Warehousing management practices and performance of distribution firms in Nairobi City County, Kenya. International Journal of Social Sciences Management and Entrepreneurship, 8(4).
27. Sao, S., et al. (2024). Unveiling the engine of efficiency: Exploring the vital dimensions of warehousing for optimal operational performance.
28. Singh, R., & Patel, A. (2020). Inventory management and operational performance of the Mumbai Police Force.
29. Smith, J., & Wang, L. (2018). Warehouse logistics and operational effectiveness of the London Metropolitan Police Service.
30. Tunde, A., & Folorunsho, K. (2021). Transportation logistics and operational efficacy of the Ghana Police Service in Accra.
31. Wachieni, J., & Ndolo, J. (2022). Freight management and operational performance of humanitarian value chains in Kenya.
32. Wang, X., & Liu, Y. (2018). The effect of inventory management on organizational performance.
33. Wernerfelt, B. (1984). A resource-based view of the firm. Strategic Management Journal, 5(2), 171–180. https://doi.org/10.1002/smj.4250050207