

**EFFECT OF IMPEDIMENTS IN SUPPLY CHAIN LINKAGES IN LOGISTICS
COMPANIES IN KENYA: A CASE STUDY OF DALSEY, HILLBLOM AND LYNN
(DHL) KENYA**

KISARA NICHOLAS ODIWUOR

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DECLARATION

This project is my original work and has not been presented for a degree in any other University

Signature.....

Date.....

Kisara Nicholas Odiwuor

ODLBML/28/01443/3/22

This project has been submitted for examination with my approval as University Supervisor

Signature.....

Date.....

Fredrick Maluki

Management University of Africa

DEDICATION

I wish to dedicate this project to my father Mr. Kisara who stood with me through various support during my entire study time.

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My institution supervisor, Mr. Fredrick Maluki has contributed a lot that has resulted to the success of this work and therefore I acknowledge him for that. I am grateful for to the administration of the Management University of Africa for allowing me to study in their

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ABSTRACT

The efficiency of logistics companies in Kenya is heavily dependent on the strength and reliability of supply chain linkages. However, impediments such as poor infrastructure, customs delays, regulatory bottlenecks, and limited technological integration continue to disrupt the

seamless flow of goods and services. These challenges not only increase operational costs but also undermine service delivery, competitiveness, and customer satisfaction. Understanding the effects of these impediments is crucial for developing strategies that enhance supply chain resilience and improve overall logistics performance in the country. The purpose of this study was to assess the effect of impediments in supply chain linkages in logistics companies in Kenya, with reference to Dalsey, Hillblom and Lynn (DHL) Kenya. The study assessed the effect of political instability, global market dynamics, government policies and infrastructure quality on supply chain linkages at DHL Kenya. The Transaction Cost Theory, the Resource-Based View Theory and Supply Chain Management Theory will be applied in this study. The study target population was 74 employees within the supply chain department. Descriptive research design was adopted. The use of census as a study sampling method was adopted to include the entire target population in the study data collection process. The use of questionnaires was used to collect data. The data was analyzed through quantitative method and presented through tables. The finding of this study established a connection between political instability, global market dynamics, government policies and infrastructure quality on supply chain linkages. The study concludes that, customs authorities in politically unstable countries often operate inefficiently due to corruption, lack of resources, or frequent policy changes. This results in prolonged clearance times, lost or damaged shipments, and additional fees, all of which negatively impact the reliability of cross-border supply chain linkages. Trade agreements influence logistics operations in that, when these agreements are altered or terminated, logistics firms must adjust to new tariffs, documentation requirements, and route restrictions. These abrupt shifts can disrupt partnerships with suppliers and clients, leading to uncertainty and reconfiguration of existing supply chain linkages. Proactive government policies reduce transit delays, increase transparency, and build trust among supply chain partners. Logistics companies operating under such conditions are better positioned to forge strong, long-term linkages with suppliers, customers, and international logistics networks. Well-paved roads, clear signage, and optimized routing technologies ensure timely delivery to end customers. In contrast, congested or poorly planned city layouts reduce delivery efficiency, increase costs, and lead to customer dissatisfaction, thereby weakening downstream supply chain effectiveness. It is recommended that, logistics companies should develop alternative supply chain routes and modes of transportation to ensure continuity during political unrest. By using a mix of road, rail, air, and sea transport, firms can maintain operations even if one channel is disrupted. Logistics firms should adopt trade analytics platforms to monitor international market trends, trade flows, and customer preferences. These insights help anticipate changes in global demand, supply chain bottlenecks, and emerging risks or opportunities. Embracing digital platforms for customs declarations, licensing, and cargo tracking can reduce bureaucratic inefficiencies. This will help these companies to minimize human error, speed up clearance times, and improve transparency in the supply chain. The use of innovative solutions like electric bikes, drones, and route optimization software, particularly in congested or underdeveloped urban areas should be adopted to help these companies bypass infrastructure gaps to reduce delivery time.

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ACRONYMS AND ABBREVIATIONS

DHL	Dalsey, Hillblom and Lynn
PPPs	Public-private partnerships
RBV	Resource-Based View

SCM	Supply Chain Management
SGR	Standard Gauge Railway
TCT	Transaction Cost Theory

OPERATIONAL DEFINITION OF TERMS

Global Market Dynamics This encompasses factors influencing global trade and economic interactions, including supply and demand, currency fluctuations, international trade agreements, and economic growth rates

Government Policies

These include laws, regulations and decisions that affect economic activities like as trade tariffs, labor laws, environmental regulations or infrastructure investments

Infrastructure Quality

This is the state of physical systems such as transportation networks (roads, ports, airports), utilities (energy, water), and communication networks (internet, telecommunication).

Political Instability

This refers to the likelihood of significant political disruptions within a country, such as government changes, civil unrest, or policy shifts.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The study's background, issue statement, aims, research questions, significance, constraints, and scope are all included in this chapter, which also serves as the study introduction.

1.1 Background of the Study

A study conducted by Fadlallah et al. (2022) in Lebanon highlights the significant impact of inadequate infrastructure and political instability on the logistics industry. In Lebanon, road congestion, poor port facilities and inconsistent electricity supply hinder the movement of goods within the country. Political instability, which often leads to protests or civil unrest, disrupts supply chain linkages by creating delays in transportation and imposing unexpected costs. These issues in Lebanon are similar to challenges faced by other regions with unstable political climates, where logistical operations often become unpredictable, leading to inefficiencies in service delivery and increased operational costs. Logistical delays often result in inventory shortages, which affect industries reliant on just-in-time delivery systems, creating a ripple effect throughout the entire supply chain.

In Malaysia, Rahman and Yunus (2021) conducted research on supply chain impediments, focusing on the role of regulatory challenges and technological gaps in logistics operations. They found that regulatory complexities such as customs clearance delays and compliance with local and international standards were major barriers to smooth supply chain linkages. These impediments increased lead times and costs for logistics companies, especially in cross-border trade. Rahman and Yunus (2021) observed that a lack of advanced technological integration in logistics operations, such as automated inventory systems and real-time tracking, contributed to inefficiencies and reduced the effectiveness of supply chain linkages. Without these technological improvements, logistics companies in Malaysia struggled to optimize their operations, which affected their ability to meet competitive market demand.

In Nigeria, Afolabi et al. (2021) explored the impact of labor shortages and strikes on the logistics industry. The study showed that the frequent strikes and labor-related disruptions at Nigerian ports and along transportation routes severely hindered supply chain linkages. The

absence of skilled labor, coupled with the high turnover rates in the logistics industry, also caused delays in the handling and delivery of goods. Afolabi et al. (2021) pointed out that such labor-related impediments led to an increase in lead times and operational costs, making it difficult for logistics companies to maintain consistent service levels. In addition to labor issues, inadequate infrastructure such as poorly maintained roads and an inefficient rail system further complicated the movement of goods within Nigeria, exacerbating supply chain disruptions.

Niyonsaba et al. (2020) in Burundi examined the relationship between infrastructure challenges and supply chain inefficiencies. The study indicated that poor road networks, inadequate transportation systems, and the lack of sufficient warehousing facilities significantly disrupted supply chain operations in Burundi. These infrastructural impediments caused delays in transportation, particularly in rural areas, where road conditions were unsuitable for heavy-duty vehicles. Furthermore, the lack of adequate storage facilities led to overstocking and understocking issues, affecting the inventory management systems of logistics companies. Niyonsaba et al. (2020) concluded that such infrastructure challenges increased operational costs, disrupted service delivery, and contributed to lost sales opportunities, all of which negatively impacted the logistics industry in Burundi.

Ngugi and Gichuhi (2023) studied the effect of supply chain impediments in the logistics industry, focusing on the role of regulatory hurdles, technological gaps, and poor infrastructure. The study found that delays in customs processing, inefficient import/export procedures, and frequent changes in regulations posed significant challenges for logistics companies operating in Kenya. These regulatory bottlenecks resulted in higher costs and delayed shipments. The study highlighted the lack of modern technology adoption in the logistics sector, particularly in tracking and inventory management systems. This gap in technological infrastructure led to challenges in coordinating shipments, tracking deliveries, and forecasting demand, ultimately affecting the efficiency of supply chain linkages. Ngugi and Gichuhi (2023) also pointed out that poor road networks and congestion in key cities like Nairobi exacerbated logistical challenges, leading to longer delivery times and increased transportation costs.

1.1.1 Political Instability

Political instability refers to the occurrence of sudden, unpredictable changes in the political environment of a country, such as government changes, civil unrest, or armed conflicts. In the logistics industry, political instability can have a significant impact on supply chain linkages by disrupting transportation routes, delaying shipments, and increasing the risks associated with cross-border trade. According to studies by Tebbutt and Smith (2021), political instability can lead to the closure of borders, impose curfews, or result in strikes and protests, which directly hinder the smooth flow of goods and services. In countries where political unrest is frequent, logistics companies often face increased transportation costs and operational risks, which can disrupt supply chain schedules, leading to delays and inefficiencies in delivery. Such disruptions affect not only domestic supply chains but also international trade, increasing lead times and logistical costs.

El-Sharkawy and Kandeel (2022) argue that, the unpredictability of the political environment can lead to a loss of investor confidence in the logistics industry, discouraging foreign investment and reducing the availability of funds for infrastructure improvements. The lack of investment can then exacerbate existing logistical problems, such as inefficient ports, inadequate transport networks, and insufficient warehousing facilities. In politically unstable regions, organizations may also experience difficulties in establishing reliable supply chain partnerships, as local suppliers or transporters may struggle to maintain consistent services due to the volatility of the political environment. As a result, the overall productivity and efficiency of logistics operations can be severely compromised.

1.1.2 Global Market Dynamics

Global market dynamics refer to the broader economic, trade, and market trends that influence international trade flows, such as changes in demand, shifts in commodity prices, and the impact of global trade agreements. In the logistics industry, these dynamics can lead to fluctuations in supply chain linkages as companies react to changes in market demand or global trade policies. Kamau and Nderitu (2022), when global markets experience volatility, it often results in fluctuating transportation costs, delays in international shipments, and an increased need for inventory management adjustments. For example, sudden changes in commodity prices or raw material shortages can cause imbalances in supply and demand, leading to inefficient production cycles and transportation bottlenecks. Trade wars and tariffs can create barriers to

entry in certain markets, thereby disrupting established supply chain routes and increasing the cost of goods.

The effects of global market dynamics are especially noticeable in industries dependent on global supply chains, such as electronics, automotive, and textiles. Smith and Richards (2020) found that fluctuations in global oil prices, changes in international trade agreements, and the emergence of new global competitors can cause disruptions in logistics operations. These changes may necessitate reevaluating suppliers, adjusting shipping routes, or investing in new technologies to keep up with shifting market demands. The uncertainty generated by such global market dynamics forces logistics companies to adopt more agile and flexible supply chain strategies, which can lead to increased operational costs if not managed effectively. In some cases, failure to adapt to these changes can result in missed business opportunities and a loss of competitive advantage.

1.1.3 Government Policies and Regulations

Government policies and regulations play a crucial role in shaping the efficiency and reliability of supply chain linkages in the logistics industry. Regulations related to customs, trade, taxation, labor, and environmental standards can either facilitate or obstruct the smooth flow of goods and services across borders. Mugambi and Sikalieh (2020) point out that stringent regulatory requirements, such as complex customs procedures and high import/export duties, can create delays in supply chains, as goods may be stuck at border points awaiting clearance. In some cases, regulatory policies may require significant investments in compliance infrastructure, increasing operational costs for logistics companies. Changes in government policies, like trade restrictions or tariffs, can alter cost and availability of goods in global markets, leading to supply chain disruptions and inefficiencies in the logistics industry.

Regulatory frameworks that are not aligned with international standards can create difficulties in cross-border logistics, particularly for organizations operating in multiple countries. According to Ngugi and Gichuhi (2023), countries with inconsistent or unclear regulations can face logistical inefficiencies due to the lack of standardized procedures. This inconsistency results in longer lead times, higher costs, and more complicated negotiations between stakeholders in different countries. Furthermore, government interventions in areas like fuel

prices, labor laws, or environmental regulations can directly impact transportation and supply chain operations. As regulations evolve, logistics companies must constantly adjust their operations to remain compliant, which can introduce unpredictability into supply chain linkages, affecting overall productivity.

1.1.4 Infrastructure Quality

The quality of infrastructure, including transportation networks (roads, ports, railways), storage facilities, and digital infrastructure, is a key determinant of the efficiency of supply chain linkages. Rahman and Yunus (2021) emphasize that poor infrastructure significantly hampers the efficiency of logistics operations, leading to delays, increased costs, and reduced reliability of supply chains. Inadequate roads, for instance, can slow down the transportation of goods, while inefficient port facilities can create bottlenecks, delaying the movement of goods to their final destinations. Poor infrastructure increases the operational complexity for logistics companies, leading to higher costs for transportation and inventory management. In many developing countries, where infrastructure is often outdated or insufficient, the logistics sector is forced to rely on alternative, less efficient methods of transportation, further driving up operational costs and reducing overall productivity.

Tebbutt and Smith (2021) suggest that the lack of modern digital infrastructure, such as automated warehouses or advanced logistics management systems, can severely affect supply chain linkages. In today's interconnected world, logistics companies must rely on real-time tracking, automated systems, and data analytics to streamline operations and reduce human errors. Without these systems, companies struggle to monitor their shipments, plan for inventory needs, and make adjustments to supply chains in real time. Inadequate infrastructure not only increases transportation and operational costs but also affects the overall reliability of the supply chain. As a result, logistics companies operating in regions with subpar infrastructure face constant challenges in meeting customer expectations, which impacts their competitive advantage and market position.

1.2 Statement of the Problem

The logistics industry in Kenya, particularly firms like DHL, faces significant challenges stemming from impediments in supply chain linkages that hinder operational efficiency. These

challenges include issues related to poor infrastructure, regulatory inefficiencies, and fluctuating market conditions, which contribute to delays and increased operational costs. According to Ngugi and Gichuhi (2023), Kenya's road networks and port facilities are often in poor condition, causing bottlenecks in the transportation of goods. Such infrastructural limitations make it difficult for logistics firms like DHL to maintain timely delivery schedules and meet customer expectations. The inefficiencies in Kenya's infrastructure, coupled with the rising costs of fuel and transportation, exacerbate the logistical challenges DHL faces, undermining its ability to provide consistent, cost-effective services to clients.

Further complicating supply chain operations are the regulatory challenges faced by logistics companies in Kenya. The country has experienced frequent changes in import/export regulations, customs procedures and trade policies that create uncertainty for logistics providers. These regulatory barriers often lead to delays at customs points, increased transaction costs, and a lack of clarity regarding compliance requirements, which disrupt the flow of goods and services. Kamau and Nderitu (2022), inconsistent regulations and the slow pace of trade facilitation reforms negatively affect the efficiency of logistics operations. For DHL, navigating through these challenges requires resources and strategic adjustments, which ultimately detracts from its productivity and competitiveness in the market.

The dynamic nature of global market trends plays a crucial role in affecting supply chain linkages within logistics firms. The volatility in international trade, fluctuating demand for goods, and unpredictable commodity prices make it difficult for companies like DHL to forecast and plan their supply chain operations effectively. Rahman and Yunus (2021) highlight that disruptions in global supply chains due to factors such as economic downturns or international trade tensions significantly impact logistics providers in Kenya. DHL, being part of a global supply chain, faces the challenge of aligning its operations with shifting market demands while ensuring smooth linkages between suppliers, distributors and customers. These market dynamics, combined with local supply chain obstacles, necessitate continuous adaptation, putting pressure on operational efficiency and productivity.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to determine the effect of impediments in supply chain linkages in logistics companies in Kenya with reference to DHL Kenya

1.3.1 Specific Objectives

- i. To determine the effect of political instability on supply chain linkages at DHL Kenya
- ii. To establish the effect of global market dynamics on supply chain linkages at DHL Kenya
- iii. To assess the effect of government policies and regulations on supply chain linkages at DHL Kenya
- iv. To evaluate the effect of infrastructure quality on supply chain linkages at DHL Kenya

1.4 Research Questions

- i. How does political instability affect supply chain linkages at DHL Kenya?
- ii. What is the effect of global market dynamics on supply chain linkages at DHL Kenya?
- iii. How does government policies and regulations affect supply chain linkages at DHL Kenya?
- iv. How does infrastructure quality affect supply chain linkages at DHL Kenya?

1.5 Significance of the Study

The primary beneficiaries of this study will be logistics companies operating in Kenya, including multinational firms like DHL. The research will provide these companies with a better understanding of the key obstacles they face in managing their supply chain linkages effectively. By identifying specific impediments such as poor infrastructure, regulatory challenges, and market volatility, logistics providers can adopt strategies to mitigate these challenges and improve the efficiency of their operations. Insights from the study could inform investments in better technologies, improved infrastructure, and enhanced regulatory compliance processes, all of which will lead to increased service reliability, reduced operational costs, and enhanced customer satisfaction.

The study will also be highly beneficial for policymakers and government agencies in Kenya. Understanding the key impediments that logistics companies face, particularly regarding infrastructure and regulatory inefficiencies will provide valuable data to inform policy decisions and reforms. By addressing issues like poor road networks, inconsistent customs procedures,

and inadequate infrastructure, the government can make strategic investments to improve the overall logistics landscape. Additionally, the findings can guide the development of policies that promote smoother trade facilitation, encourage investment in infrastructure development, and streamline the regulatory environment, which can enhance the country's competitiveness in global trade and logistics operations.

This study will contribute to academic research in fields of logistics, supply chain management and business operations. Researchers and scholars will benefit from the insights generated by the case study of DHL in Kenya, as it provides real-world data on the specific challenges faced by logistics companies in a developing economy. This research can serve as a foundation for further studies on the logistics sector, particularly in sub-Saharan Africa, and provide comparative analysis with other regions. The findings can inform the development of new models and frameworks for understanding and addressing supply chain disruptions in emerging markets, enhancing academic discourse in logistics management studies.

1.6 Scope of the Study

The purpose of this study was determine the effect of impediments in supply chain linkages in logistics companies in Kenya with reference to DHL Kenya, located at Corner Lusaka Road and Witu at the Industrial Area in Nairobi, Kenya. The target population was 74 employees within the supply chain department. This study was conducted from January to June 2025.

1.7. Chapter Summary

This chapter discusses the study's introduction. It contains the study's background, which talks about how the prior author contributed to the main research theme. The nature of the problem and its causes are described in the problem statement. The independent variables being examined determine the overall and specific goals of the study. Research questions have been created based on the specific objectives of the study. This chapter also discusses the study's significance and scope.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter provides the study literature review. It comprises of the theoretical literature review, empirical literature review, summary and research gaps, conceptual framework, operationalization of variables and the chapter summary.

2.1 Theoretical Literature Review

Theoretical literature review examines established theories that explain supply chain linkages and the challenges logistics companies face. The Transaction Cost Theory (TCT) by Coase (1937) and Williamson (1975) was used as the anchored theory because it provides a robust lens to understand how and why supply chain impediments affect decision-making, costs, and organizational choices and it is well-suited to developing economies like Kenya, where infrastructure and regulatory inefficiencies can raise transaction costs significantly.

2.1.1 Transaction Cost Theory

The Transaction Cost Theory, originally developed by Coase (1937) and later expanded by Williamson (1975), focuses on the costs associated with economic transactions. The theory posits that firms must decide whether to carry out certain activities internally or outsource them based on transaction costs, which include search costs, bargaining costs, enforcement costs, and coordination costs. In logistics, these costs are significantly impacted by impediments in supply chain linkages, such as regulatory bottlenecks, poor infrastructure, and inefficiencies in communication among supply chain partners.

In Kenya, one of the biggest challenges faced by logistics firms is the high cost of transportation, exacerbated by poor road networks and congestion at major ports, such as the Port of Mombasa (Kimani, 2021). These infrastructural challenges increase transaction costs, making logistics operations expensive and inefficient. Bureaucratic red tape in customs clearance leads to further delays and increased costs. The presence of multiple checkpoints on Kenyan highways, coupled with varying county-level taxation policies, also contributes to higher enforcement costs.

To minimize these transaction costs, logistics companies in Kenya can adopt strategies such as vertical integration, where firms control multiple aspects of the supply chain, reducing dependency on third parties. Adopting technology-driven solutions, such as block chain and real-time tracking systems, can enhance transparency and reduce coordination costs. By reducing transaction costs, logistics firms can enhance efficiency, improve profitability, and ensure seamless supply chain operations.

2.1.2 Resource-Based View (RBV) Theory

The Resource-Based View (RBV) Theory, introduced by Barney (1991), emphasizes that a firm's competitive advantage depends on its unique resources and capabilities. According to this theory, firms that possess valuable, rare, inimitable, and non-substitutable resources can outperform competitors and navigate supply chain challenges more effectively. In the context of Kenyan logistics companies, impediments like limited technological adoption, inadequate skilled workforce, and poor warehousing facilities hinder efficient supply chain linkages.

A key issue faced by logistics firms in Kenya is the lack of investment in advanced supply chain management systems. Many companies still rely on outdated tracking and inventory management tools, leading to inefficiencies in cargo handling and distribution (Wanjiru, 2022). Shortage of skilled personnel in logistics and supply chain management further weakens the sector's ability to optimize operations, this lack of expertise results in delays, errors in shipment and poor decision-making, which negatively impact supply chain linkages.

To overcome these impediments, logistics firms in Kenya need to invest in technology-driven solutions, such as Enterprise Resource Planning systems, artificial intelligence (AI), and predictive analytics, to enhance supply chain efficiency. Additionally, developing strategic partnerships with academic institutions can help improve workforce skills through specialized training programs. By leveraging unique and valuable resources, logistics firms can create a more resilient and efficient supply chain network, reducing operational disruptions and improving service delivery (Mwangi and Kamau, 2023).

2.1.3. Supply Chain Management Theory

The Supply Chain Management Theory, developed by Mentzer et al. (2001), highlights the importance of coordination, integration, and collaboration among supply chain stakeholders to achieve optimal performance. According to this theory, an effective supply chain should function as a seamless and interconnected system, where suppliers, manufacturers, distributors, and logistics firms work together to ensure efficiency. However, in Kenya, several impediments disrupt supply chain linkages, including fragmentation in supply chain networks, lack of real-time data sharing, and regulatory inefficiencies.

One of the major challenges in Kenya's logistics industry is poor coordination between suppliers and transporters, leading to frequent delays and stock outs (Muthoni, 2023). Many logistics firms operate in silos, failing to integrate their operations with suppliers and distributors, which results in inefficiencies in demand forecasting and inventory management. Additionally, limited use of data analytics and real-time tracking makes it difficult for logistics firms to anticipate disruptions and optimize delivery routes.

To enhance supply chain linkages, logistics firms in Kenya should adopt integrated supply chain systems, which enable real-time communication and data sharing among all stakeholders. The implementation of block chain technology can also improve supply chain visibility, ensuring transparency and reducing fraud. Furthermore, forming strategic alliances with government agencies can help reduce regulatory bottlenecks, improving the speed and efficiency of goods movement. By fostering collaboration and integration, logistics firms can create a more resilient, agile, and cost-effective supply chain system (Wanjiru, 2022).

2.2 Empirical Literature Review

The section summarizes the work of other experts to help fill in the gaps that the current study aims to fill. The empirical literature review provides a summary of earlier studies and findings related to the topic of interest. This section examines and synthesizes empirical studies to find patterns, significant findings, and gaps in the literature that informed the future research and practices in the field.

2.2.1 Political Instability and Supply Chain Linkages

While Ireland is considered politically stable, Brexit created significant political and economic uncertainty that disrupted supply chain linkages. A study by Murphy and O'Brien (2022) found that Brexit led to new trade barriers, customs procedures, and regulatory changes, impacting logistics companies operating between Ireland and the United Kingdom. The study identified several key effects on supply chains: increased customs checks led to longer lead times for imports and exports, regulatory uncertainty made it difficult for businesses to plan long-term supply chain strategies and higher operational costs emerged as firms had to adapt to new compliance requirements and reconfigure their logistics networks. Despite these challenges, Ireland's response included technological innovations which helped minimize disruptions. However, the study focused primarily on Brexit-related instability and did not explore broader political instability scenarios, such as domestic governance issues or external political conflicts. While Ireland's case highlights how political instability in neighboring regions can affect supply chains, it does not address how countries with weaker governance structures and security risks handle disruptions. This study filled the gap by comparing Ireland's experience with that of Kenya, where political instability stems from internal governance challenges rather than external political events.

Italy has faced frequent government changes and political uncertainty, affecting supply chain operations. Bianchi and Romano (2023) examined how political instability impacts Italy's logistics sector, particularly in manufacturing and retail supply chains. Their study found that unstable government policies led to inconsistent trade regulations, making long-term supply chain planning difficult, transport strikes and labor unrest, often driven by political tensions, disrupted supply routes and delays in public infrastructure projects, caused by shifting political priorities, weakened logistics connectivity. Italy's instability was domestic and governance-related, affecting internal supply chain efficiency. Italy's well-developed infrastructure and European Union membership helped mitigate extreme disruptions. The study recommended greater policy consistency and private-sector engagement to stabilize supply chains amid political uncertainty. Italy's case highlights the role of governance instability in disrupting supply chains, but it does not explore how developing economies, with weaker institutional frameworks, manage similar challenges. This study filled the gap by examining how Kenya,

with its periodic election-related instability, handles supply chain disruptions in a less regulated and less integrated economic environment.

Rwanda's history of political instability, particularly during and after the 1994 genocide, had devastating effects on supply chains. Niyonsenga (2021) analyzed Rwanda's post-genocide economic recovery and its impact on supply chain linkages. The study identified the following challenges, widespread destruction of infrastructure, including roads, warehouses, and bridges, led to logistical bottlenecks, the collapse of governance structures resulted in inefficient trade facilitation and a lack of regulatory oversight and the high levels of uncertainty discouraged foreign investment, weakening supply chain integration with international markets. Despite these challenges, Rwanda's government implemented pro-business policies, invested in infrastructure development, and strengthened regional trade agreements, which significantly improved its logistics sector. While Rwanda's study focuses on post-conflict recovery, it does not address how ongoing political instability-such as election-related violence-affects supply chains in developing economies. This study filled the gap by examining how Kenya, which experiences periodic political disruptions rather than prolonged conflict, can build resilient supply chain networks despite recurring instability.

Kenya has faced recurrent political instability, particularly during election periods, which significantly affects supply chains. Mwangi and Kamau (2023) studied the impact of post-election violence on Kenya's logistics sector and found that road blockades and insecurity disrupted the movement of goods, increasing delivery times and costs, looting and vandalism of goods created financial losses for supply chain stakeholders and unstable trade policies, influenced by political lobbying, created unpredictability in import/export regulations. Kenya's instability often results in violent conflicts that physically disrupt logistics networks. Compared to Rwanda, where instability was prolonged but gradually stabilized, Kenya's recurring cycles of instability make it difficult for businesses to build long-term supply chain resilience. While existing research highlights Kenya's election-related supply chain disruptions, there is limited focus on how private-sector logistics firms can use digital transformation and alternative trade strategies to mitigate these challenges. This study filled the gap by exploring how Kenyan logistics firms can adopt flexible trade routes and supplier diversification to reduce dependency

on politically volatile regions and advocate for policy reforms to create a more predictable regulatory environment.

2.2.2 Global Market Dynamics and Supply Chain Linkages

India's supply chains have been significantly impacted by global trade policies, economic volatility, and supply chain digitalization trends. Sharma and Patel (2022) examined the effect of fluctuating oil prices, international trade tariffs disruptions on India's logistics sector. The study found that volatile fuel prices increased transportation costs, affecting supply chain efficiency, trade restrictions and shifting import-export policies disrupted the availability of raw materials for key industries and the global supply chain digitalization trends forced Indian firms to invest in automation and AI-driven logistics solutions to remain competitive. Despite these challenges, India's strong manufacturing base and government-backed digital transformation initiatives have helped its supply chains remain competitive. The study emphasizes the importance of technological adaptation in mitigating global supply chain risks. While India's study highlights the role of global economic fluctuations and digitalization in shaping supply chains, it does not address how economies with weaker digital infrastructure and regulatory frameworks manage similar challenges. This study filled the gap by exploring how Kenyan logistics firms-operating in a less digitized environment-can leverage technology and policy reforms to enhance supply chain efficiency.

As part of the UK, Wales has faced significant supply chain disruptions due to Brexit, trade policy shifts, and labor shortages. A study by Williams and Thomas (2023) analyzed the impact of Brexit-related trade policies and labor market dynamics on Wales' supply chain networks. The study found that new trade barriers with the European union led to delays, increased customs costs, and rerouted supply chains, shortages of skilled labor in key industries (manufacturing, logistics and retail) disrupted supply chain efficiency and the global economic uncertainty post-Brexit forced Welsh businesses to diversify suppliers and invest in automation to maintain competitiveness. Wales' case illustrates how global trade policy changes can reshape regional supply chain linkages. Welsh firms relied more on supplier diversification and automation to counteract market uncertainties. While Wales' study focuses on the impact of trade policy shifts on supply chains, it does not explore how countries with weaker economic integration and higher political instability manage supply chain risks. This study filled the gap

by comparing Wales' experience with Kenyan, where supply chains face multiple pressures, including global market shifts and domestic governance challenges.

Sudan's supply chain networks have been highly vulnerable to global market fluctuations due to ongoing economic sanctions, currency depreciation, and trade restrictions. Ahmed et al. (2021) investigated the effect of global commodity price shifts, trade embargoes, and regional conflicts on Sudan's logistics sector. Key findings included, economic sanctions and trade restrictions reduced access to critical supply chain resources such as fuel and industrial equipment, fluctuations in global commodity prices, particularly in the oil and agricultural sectors, destabilized supply chain planning and geopolitical tensions and civil conflicts created logistics bottlenecks, increasing costs and reducing supply chain efficiency. Sudan's experience highlights the challenges faced by economies that are disconnected from global trade networks due to political and economic instability. Sudan's supply chains remain highly vulnerable due to external dependencies and weak institutional support. While Sudan's study focuses on the impact of trade restrictions and geopolitical instability on supply chains, it does not examine how countries with more stable trade environments but periodic political disruptions handle global market fluctuations. This study filled the gap by exploring how Kenyan logistics firms can balance global market risks with domestic economic policies to create a more stable supply chain network.

Kenya's supply chain networks have been significantly influenced by global trade trends, shifting commodity prices, and foreign investment policies. Otieno and Njoroge (2023) examined the effect of global economic slowdowns, trade disruptions, and currency fluctuations on Kenya's logistics industry. The study found that, global oil price fluctuations affected transportation costs, increasing supply chain expenses, foreign direct investment in Kenya's logistics sector fluctuated based on global economic conditions, affecting infrastructure development and a shifts in international trade agreements impacted Kenya's ability to export agricultural products and import industrial goods. Kenya's supply chains are more vulnerable due to reliance on external trade partners, weak infrastructure, and regulatory inconsistencies. Kenya's growing adoption of digital logistics solutions and regional trade agreements present opportunities for supply chain resilience. While Kenya's study highlights global economic trends affecting supply chains, it does not explore how businesses can proactively adapt to

global market shifts using strategic investments and technology. This study filled the gap by examining how Kenyan logistics firms can enhance resilience through technology adoption, supplier diversification, and regional trade partnerships.

2.2.3 Government Policies and Regulations and Supply Chain Linkages

Estonia has been recognized for its pro-business policies, digital governance, and advanced logistics infrastructure, making it a model for how government regulations can enhance supply chain linkages. Laukkanen and Vainikainen (2022) examined how Estonia's regulatory framework, digital trade policies, and environmental regulations have influenced supply chains. The study found that, E-Governance initiatives, such as electronic customs clearance and digital trade documentation, significantly reduced administrative burdens and improved cross-border logistics. Transparent regulatory policies fostered foreign investment in logistics infrastructure, improving supply chain efficiency and sustainable supply chain regulations encouraged businesses to adopt green logistics solutions, reducing carbon footprints while maintaining efficiency. Estonia's digital-first governance model and streamlined regulatory processes have resulted in high supply chain efficiency and minimal bureaucratic delays. The study highlights the benefits of regulatory stability and digitalization in enhancing supply chain performance. While Estonia's case demonstrates how proactive policies and digital transformation enhance supply chain efficiency, it does not explore how developing economies with fragmented regulatory frameworks can achieve similar success. This study filled the gap by examining how Kenya can integrate digital governance and policy reforms to improve supply chain linkages despite regulatory inconsistencies.

South Africa's supply chains are highly regulated, with government policies influencing labor laws, transportation regulations, and trade facilitation measures. A study by Mthembu and Van Wyk (2021) explored the impact of strict labor laws, customs regulations, and transport policies on supply chain efficiency. The study found that, rigid labor laws and frequent labor strikes in the transportation sector led to logistics disruptions and increased costs. Complex customs and border regulations resulted in delays in international trade, especially in imports and exports and infrastructure investments by the government, such as port expansions and railway modernizations, improved long-term supply chain efficiency. Government investments in infrastructure development and regional trade partnerships have helped mitigate some of these

challenges. South Africa's case highlights the impact of labor laws and customs regulations on supply chains, but it does not explore how firms can strategically adapt to overcome regulatory inefficiencies. This study filled the gap by analyzing how Kenyan logistics firms can navigate labor laws, customs policies, and infrastructure gaps through technology adoption and alternative supply chain strategies.

Kenya's supply chain networks are heavily influenced by government trade policies, taxation frameworks, customs regulations, and infrastructure development programs. Otieno and Kamau (2023) examined the impact of government regulations on logistics and supply chain management in Kenya. The study found that: high taxation and fluctuating regulatory policies created uncertainty for businesses, leading to higher costs in logistics operations, delays in customs clearance processes slowed down import/export efficiency, affecting global supply chain linkages and Public-private partnerships (PPPs) in infrastructure projects, like Standard Gauge Railway (SGR), improved logistics efficiency, reducing reliance on road transport. Kenya's regulatory environment is more fragmented, creating uncertainties for logistics firms. However, Kenya has taken progressive steps toward regional trade integration through agreements like the African Continental Free Trade Area, which could enhance future supply chain linkages. Kenya's case highlights regulatory inefficiencies affecting supply chains, but existing research does not offer practical solutions for logistics firms to navigate policy uncertainties and improve efficiency. This study filled the gap by examining how Kenyan logistics firms can adapt to unpredictable policy changes through supplier diversification and digital tracking systems and exploring how Kenya can adopt best practices from Estonia's e-governance model to streamline customs processes.

2.2.4 Infrastructure Quality and Regulations and Supply Chain Linkages

Germany is known for having one of the most advanced logistics and infrastructure networks in the world, with highly efficient transport systems, smart logistics hubs, and extensive digital connectivity. Müller and Schmidt (2022) analyzed role of transportation infrastructure, digital logistics systems, and energy networks in Germany's supply chain efficiency. The study found that, well-maintained road, rail, and port infrastructure significantly reduced transportation time and costs, ensuring smooth supply chain linkages and advanced digital logistics platforms, including automated warehousing, block chain-based tracking, and AI-driven supply chain

management, improved real-time visibility and efficiency. Germany's case demonstrates how high-quality infrastructure fosters seamless supply chain operations, making it a global logistics hub. While the study highlights the benefits of well-developed infrastructure, it does not address how countries with underdeveloped infrastructure can improve supply chain linkages using cost-effective and innovative solutions. This study filled the gap by exploring how Kenyan logistics firms can adopt scalable digital solutions and alternative transportation strategies to mitigate infrastructure deficiencies.

Cyprus, an island economy, faces unique supply chain challenges due to its geographical location and reliance on maritime trade infrastructure. A study by Ioannou and Georgiou (2023) examined the impact of port infrastructure, road networks, and digital trade facilitation on supply chain linkages in Cyprus. Key findings included, port efficiency and modernization were critical for facilitating international trade, but periodic congestion and capacity limitations affected supply chain fluidity, limited inland transport infrastructure created bottlenecks in the movement of goods from ports to inland distribution centers and digital customs and trade facilitation policies helped streamline logistics operations by reducing delays and paperwork. Cyprus' case highlights importance of efficient maritime infrastructure and digital trade facilitation in overcoming geographical constraints. Cyprus relies heavily on ports and digital trade solutions. While Cyprus' study focuses on maritime infrastructure and digital customs solutions, it does not explore how landlocked or semi-landlocked countries with weak transport infrastructure can optimize supply chain linkages. This study filled the gap by analyzing how Kenya-facing both land and maritime transport challenges-can leverage digital trade facilitation and infrastructure investments to enhance supply chain efficiency.

Nigeria's supply chains are significantly impacted by poor road networks, inconsistent power supply, and weak port infrastructure, leading to high logistics costs and inefficiencies. A study by Ogunleye and Ajayi (2021) examined impact of transportation, energy, and warehousing infrastructure on supply chain linkages in Nigeria. The study found that, poor road networks and inadequate rail infrastructure led to delays, high transportation costs, and frequent supply chain disruptions, inconsistent power supply affected warehouse operations, raising costs and congested and inefficient ports resulted in delays in clearing imported goods, affecting international supply chain linkages. Nigeria's case illustrates how infrastructure deficiencies

create major bottlenecks in supply chains, increasing operational costs and reducing efficiency. While the study highlights the severe impact of infrastructure deficiencies on supply chains, it does not explore cost-effective and innovative solutions for firms operating in similar conditions. This study filled the gap by investigating how Kenyan logistics firms can use technology, public-private partnerships, and regional trade agreements to mitigate infrastructure-related supply chain challenges.

Kenya’s supply chains are affected by transport infrastructure gaps, digital connectivity challenges, and inconsistent energy supply. Mutua and Wanjiru (2023) analyzed the effect of transportation networks, digital logistics systems, and public infrastructure investment on supply chain linkages in Kenya. The study found that, significant improvements in road and railway infrastructure, such as the Standard Gauge Railway, have reduced transportation time and costs, particularly for cargo movement between Mombasa and Nairobi, Limited last-mile connectivity and inadequate rural road networks continue to hinder supply chain efficiency, particularly in the agricultural sector and slow adoption of digital logistics solutions has led to inefficiencies in tracking, warehousing, and customs clearance processes. While investments in major transport projects have improved supply chain linkages, rural connectivity and digital adoption remain areas of concern. While Kenya’s study provides insights into infrastructure-related challenges and improvements, it does not explore how firms can integrate alternative transport modes and digital solutions to mitigate these challenges. This study filled the gap by analyzing how Kenyan logistics firms can adopt technology-driven solutions to improve supply chain efficiency and how Kenya can learn from best practices countries like Germany and Cyprus to enhance supply chain linkages through smart infrastructure investments.

2.3 Summary of Knowledge Gaps

Table 1: Summary of Knowledge Gaps

Author	Year	Title	Findings	Research Gaps	Focus on the Current Study
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Bianchi, M., & Romano, F.	(2023)	Effects of project management on the performance of a construction firm in Nigeria	Unstable government policies led to inconsistent trade regulations, making long-term supply chain planning difficult, transport strikes and labor unrest, often driven by political tensions	Study highlights role of governance instability in disrupting supply chains, but it does not explore how developing economies, with weaker institutional frameworks, manage similar challenges	This study filled the gap by examining how Kenya, with its periodic election-related instability, handles supply chain disruptions in a less regulated and less integrated economic environment.
Sharma, R., & Patel, K.	(2022)	The role of digital transformation in India's supply chain resilience amid global market fluctuations	Volatile fuel prices increases transportation costs, affecting supply chain efficiency and shifting import-export policies disrupted the availability of raw materials for key industries	While the study highlights role of global economic fluctuations in shaping supply chains, it does not address how economies with weaker digital infrastructure manage similar challenges	This study filled the gap by exploring how Kenyan logistics firms-operating in a less digitized environment-can leverage technology and policy reforms to enhance supply chain efficiency
Author	Year	Title	Findings	Research Gaps	Focus on the Current Study

Laukkanen, A., & Vainikainen, P. (2022)	E-Governance and its impact on supply chain efficiency in Estonia	Transparent regulatory policies fostered foreign investment in logistics infrastructure, improving supply chain efficiency and sustainable supply chain regulations	While the study demonstrates how proactive policies and digital transformation enhance supply chain efficiency, it does not explore how economies with fragmented regulatory frameworks can achieve similar success	This study filled the gap by examining how Kenya can integrate digital governance and policy reforms to improve supply chain linkages despite regulatory inconsistencies.
Müller, K., & Schmidt, L. (2022)	Smart logistics and infrastructure development in Germany	Well-maintained road, rail, and port infrastructure significantly reduced transportation time and costs, ensuring smooth supply chain linkages and advanced digital logistics platforms	The researcher has not addressed how countries with underdeveloped infrastructure can improve supply chain linkages using cost-effective and innovative solutions.	This study filled the gap by exploring how Kenyan logistics firms can adopt scalable digital solutions and alternative transportation strategies to mitigate infrastructure deficiencies

2.4 Conceptual Framework

Independent Variable

Dependent Variable

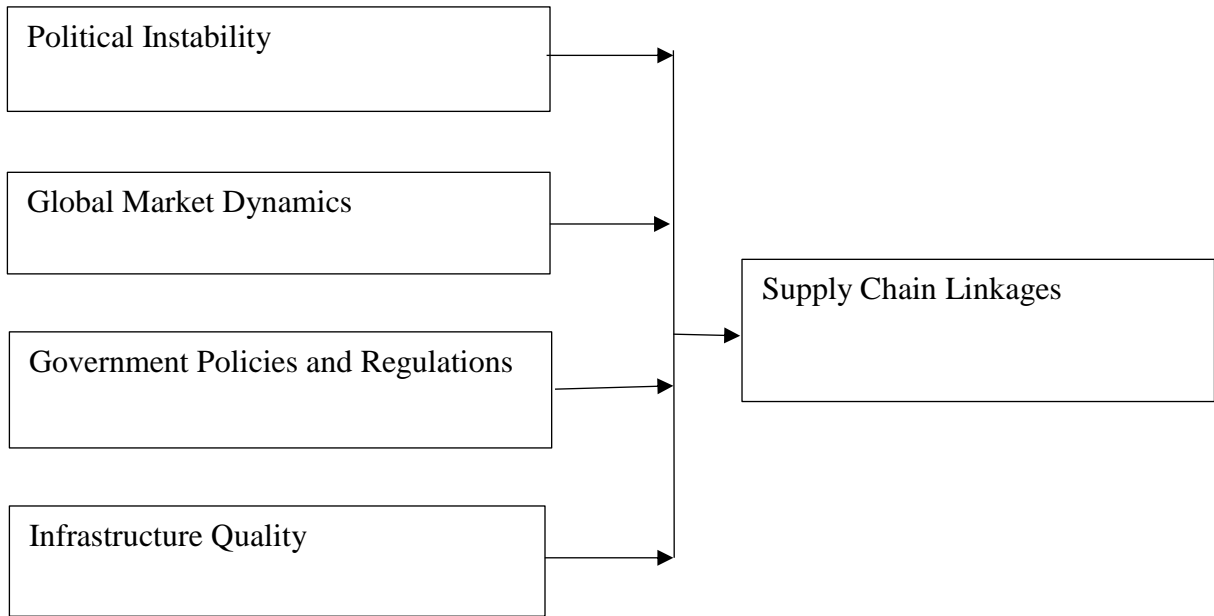


Figure 1: Conceptual Framework

2.5 Operationalization of Variables

Table 2 Operationalization of Variables

Variable	Indicators	Measurement Scale	Tools of Analysis
Political Instability	<ul style="list-style-type: none"> • Import/export restrictions • Lead time variability • Supply chain disruptions frequency • Supplier reliability index 	5-Point Likert Scale Questionnaire	Frequencies Percentages
Global Market Dynamics	<ul style="list-style-type: none"> ▪ Exchange rate volatility ▪ Commodity price index ▪ Trade volume & balance ▪ Customer demand variability 	5-Point Likert Scale Questionnaire	Frequencies Percentages
Government Policies and Regulations	<ul style="list-style-type: none"> • Regulatory compliance • Taxation and tariff impact on cost • Labor law compliance index • Environmental compliance score 	5-Point Likert Scale Questionnaire	Frequencies Percentages
Infrastructure Quality	<ul style="list-style-type: none"> • Average delivery time • Average delivery time • Cost of transportation per unit of goods • Power supply reliability index 	5-Point Likert Scale Questionnaire	Frequencies Percentages

2.6 Chapter Summary

This chapter explored the anchor theory along with the supporting theoretical perspectives that provide a strong foundation for the study. It reviewed relevant empirical literature to highlight existing research findings and identify gaps that this study seeks to address. The discussion also included a summary of these gaps, the development of a conceptual framework to illustrate key connection among variables, and the operationalization of the study variables to define how they were measured. The chapter concluded with a brief summary, tying together the key points discussed.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This study's research design, target population, sampling strategy, tool for acquiring data, technique for analyzing and presenting results, ethical considerations, and chapter summary are all included in this chapter.

3.1 Research Design

Research design is the overall strategy or blueprint that outlines how a research study will be conducted. It includes the methods, procedures, and techniques used to collect and analyze data to achieve the research objectives. A well-structured research design ensures the validity, reliability, and accuracy of the study's findings. Descriptive research design is a type of research method that was used in this study to describe characteristics, behaviors, and trends of a specific population, phenomenon, or situation. It helped in understanding and explaining existing conditions, behaviors, or trends. Since it does not interfere with the study variables, it provides an accurate representation of real-world scenarios. The common methods include surveys, observations, and case studies Gamage, (2025).

3.2 Target Population

According to Kothari (2015), the target population is the entire group of individuals or objects that a study is attempting to identify or draw conclusions from. A total of 74 employees within the supply chain department of the DHL Kenya headquarters in Nairobi was the target population.

Table 3 Target Population

Category	Population Size	Percentage
Warehouse Department	25	34
Procurement Department	19	26
Logistic/ Distribution Department	30	40
Total	74	100

3.3 Sample and Sampling Technique

A sample is a subset of a population selected for a research study. It represents the larger population and is used to draw conclusions about the whole group without studying every individual (Bersoff, 2019). A well-chosen sample ensures the accuracy and generalizability of research findings. The use of census as a sampling method was adopted. A census is used in a research project when the objective is to gather data from an entire population rather than a sample. When the target population is relatively small and manageable, a census ensures comprehensive data collection without the risk of missing key insights. Since data is collected from every individual or unit in the population, the results are highly accurate and free from sampling errors (Kothari and Garg, 2015).

3.4 Instruments

In this study, questionnaires were used. A questionnaire is a methodical instrument for gathering data that comprises a series of questions designed to extract information from participants on a certain topic, issue, or phenomenon. One benefit of adopting questionnaires is that they may be standardized, which ensures data comparability and dependability by asking the same questions of all participants (Bryman, 2016).

3.5 Pilot Study

In order to assess the feasibility, time, cost, and procedures of the study design and to find any potential problems with the research equipment or methodologies, a pilot study is a small-scale exploratory investigation carried out prior to the major research (Creswell, 2014). Before beginning a full-scale investigation, it enables researchers to improve data collection methods and spot any issues with study design. 10% of the sample size should be used for the pilot study since this percentage enables a significant evaluation of the research tools while still being feasible in terms of time and expense. Researchers can find flaws like unclear questions, technological difficulties, or logistical difficulties in data collecting by testing the instruments on a smaller group that is typical of the general population.

3.5.1 Validity

This is the degree to which a research tool collects the data that it is designed to collect. A valid tool ensures that the conclusions drawn from the data accurately reflect the reality of the concept

being studied (Cohen et al., 2018). To ensure content validity, the researcher will craft the survey questions to accurately capture all aspects of the study; to ensure construct validity; they would also verify that the survey questions accurately measure the theoretical foundations of procurement performance.

3.5.2 Reliability

A reliability test examines how consistently and repeatable an assessment tool provides data in order to ascertain whether it is free from random errors and can be trusted to measure the intended construct effectively (Kothari and Garg, 2015). To enhance the reliability test, the researcher crafted a clear, concise, and exact questions. The researcher refrained from using confusing or demanding terminology because it can lead to conflicting interpretations.

3.6 Data Collection Procedure

In order to gather detailed information from the participants, the researchers will use authorized questionnaires in this study, which was carried out at DHL Kenya. After approval, they ensured that all data collection procedures are carried out ethically, obtaining informed consent from participants and always maintaining participant anonymity.

3.7 Data Analysis and Presentation

Clandinin and Connelly (2010) define data analysis as a step in the research study process that comprises classifying and organizing the unprocessed field data in order to improve its interpretive value. Using Microsoft Excel sheets, the researcher assessed the data gathered for the study. Descriptive statistics was used. The final analysis of the research findings was provided using tables.

3.8 Ethical Considerations

3.8.1 Informed Consent

The researcher provided participants with comprehensive and clear information on the research process, including the objectives, procedures, potential risks, and benefits of the study, in an intelligible manner. This approach conforms to ethical norms that require participants to make an informed decision about taking part in the research (Bersoff, 2019). All participants were given informed consent forms prior to any data collection, and their formal consent will be

requested. This respects people's autonomy, ensures transparency, and shields them from pressure.

3.8.2 Voluntary Participation

This idea emphasizes that participants are not subjected to any form of coercion and are free to decide whether or not to participate in the study. The researcher made it clear that participation is completely voluntary and that participants can decline, with the assurance that their decision could not affect their connection with the researcher or any affiliated organization. This concept is crucial to maintaining the integrity of the research process and honoring the participants' independence and autonomy. The researcher worked hard to communicate this information during the recruitment process, emphasizing that participation is completely optional.

3.8.3 Confidentiality

The researcher ensured that all data collected throughout the study is kept confidential and accessible to only those who have been given permission to participate. Confidentiality was maintained through the use of locked physical records and other secure storage methods. Participants were informed by the researcher that their responses could only be used for research purposes and that no personally identifiable information could be shared with outside parties. The goal of this approach was to protect individuals' privacy and prevent any unfavorable consequences that might arise from making private information public.

3.8.4 Privacy

The researcher ensured that no participant's personal information, including contact information, is collected unless it is absolutely necessary and that it is not shared with anyone beyond the study's scope. When gathering data, the researcher prioritized minimizing the amount of personally identifiable information in order to minimize any potential hazards to participant privacy. The researcher also provided participants with thorough descriptions of these processes, ensuring that they understand how their personal information could be managed and protected.

3.8.5 Anonymity

To ensure participant anonymity, the researcher did not collect any information that could be

used to link people to their responses directly. Participants received guarantees that their identities could not be revealed in any publications or reports resulting from the study. This approach preserves participants' privacy while allowing researchers to gather useful data without endangering their personal data.

3.9 Chapter Summary

The researcher will employ quantitative techniques to gather comprehensive data on the topic of interest. Data collection for the study will mostly be done through questionnaires, with a focus on getting responses from managers and employees in the hospitality industry. The link of study variables has been examined using the descriptive study design. Census was used to choose people who are relevant to study issue. In order to provide a thorough interpretation of the results, statistical techniques were employed in data analysis for quantitative data.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

This chapter has covered the interpretation of the data obtained from the administered surveys after the field's raw data was collected.

4.1 Presentation of Research Findings

Table 4 Response Rate

Category	Frequency	Percentage
Response	64	86
Non-Response	10	14
Total	74	100

To ascertain the study response, 74 questionnaires were issued as part of the study sample. The study yielded good findings; 86% of respondents gave a positive answer, while 14% did not, as indicated by a score of 64. This outcome proved that the study was successful, and as such, it can serve as a basis for further research.

Table 5 Gender Analysis

Category	Frequency	Percentage
Male	41	64
Female	23	36
Total	64	100

This study's gender response analysis revealed that, with 64% of the responses coming from the males whereas 36% from females. This indicates that there were more male responses than female responses. This implies that there is a gender disparity inside this company necessitated by the large portion of the nature of work being done which mostly involves male.

Table 6 Highest Education Level

Category	Frequency	Percentage
Secondary Certificate	32	50
College Diploma	24	38
University Degree	6	9
Postgraduate Degree Level	2	3
Total	64	100

The researcher assessed the educational achievements of the different research participants. This study found that 3 percent had a postgraduate degree, 38% had a college degree, 9% had a university degree and 50% had a secondary certificate. This outcome showed how knowledgeable the employees of this company were thus, ability to be more productive.

Table 7 Length of Service

Category	Frequency	Percentage
1-2 year	8	12
3-4 years	40	63
5 years & above	16	25
Total	64	100

The evaluation of the length of service of the research participants revealed that 12% had worked for one to two years, 63% had worked for three to four years and 25% had worked for five years or more. It was found that because respondents had a stronger understanding of the firm's background knowledge, they were better able to reply to research questions.

Table 8 Age Brackets

Category	Frequency	Percentage
18-23 Years	5	8
24-29 Years	9	14
30-35 Years	13	20
36 years and above	37	58
Total	64	100

The research participants' groups were also assessed in this study. Eight percent were in the 18–23 age range, fourteen percent were in the 24–29 age range, twenty percent were in the 30–35 age range and fifty-eight percent were older than thirty-six years and above. This finding showed that the participants in the study were more mature, which facilitated their ability to provide a comprehensive understanding of the research setting.

Table 9 Rating effect of political instability on supply chain linkages

	Strongly Agreed	Agreed	Undecided	Disagreed	Strongly Disagreed
Political instability leads to supply chain disruptions by causing trade restrictions, labor strikes and logistical delays	48%	52%	0%	0%	0%
Frequent political unrest in a country discourages foreign investments, negatively affecting supply chain partnerships and linkages	50%	50%	0%	0%	0%

Unstable political environments increase procurement costs due to higher risks, insurance premiums, and security expenses	42%	58%	0%	0%	0%
Political uncertainty makes long-term supply chain planning difficult due to unpredictable policy changes and regulations	60%	40%	0%	0%	0%
A politically stable environment enhances supply chain efficiency by ensuring smooth trade and operational continuity	48%	52%	0%	0%	0%

The statement on whether political instability leads to supply chain disruptions revealed that, the majority of respondents strongly agreed or agreed that political instability leads to logistical delays, trade restrictions, and labor strikes. This supports literature showing how political unrest in Kenya has frequently delayed customs operations and disrupted port activities. These real-time disruptions at DHL Kenya align with field responses indicating widespread acknowledgement of the instability’s operational impact. The statement on whether Frequent political unrest discourages foreign investments revealed that, field responses leaned heavily towards agreement, indicating that DHL staff recognize the impact of instability on attracting global partners. This matches secondary findings that foreign logistics investors often avoid unstable regions, thus weakening DHL’s global integration in politically fragile times. The data confirms that employees are aware of how political conditions influence investor confidence and supply chain strength. On assessing if unstable political environments increase procurement costs, large number of respondents strongly agreed, confirming the reality that political instability forces DHL Kenya to incur additional expenses for insurance, risk protection, and security. These perceptions correlate with documented increases in operating costs during previous unrest periods (higher container storage fees during protests or border tensions). This alignment shows the practical experience of employees mirrors academic research. On whether political uncertainty hinders long-term planning, the field data shows a high level of agreement,

reflecting DHL employees’ understanding that unpredictable political climates complicate strategic decisions. This supports prior findings that abrupt policy shifts-often driven by new regimes-disrupt long-term logistics planning. Respondents’ recognition of this uncertainty highlights operational struggles in forecasting and strategy formulation. On determining if politically stable environment enhances efficiency, most respondents agreed or strongly agreed, emphasizing the positive impact of political stability on daily logistics operations. This view corresponds with industry reports indicating smooth customs procedures, open trade routes, and faster clearance times in politically calm periods. The alignment between field data and literature affirms the importance of stable governance for reliable supply chain linkages.

Table 10 Rating effect of global market dynamics on supply chain linkages

	Strongly Agreed	Agreed	Undecided	Disagreed	Strongly Disagreed
Exchange rate volatility affects the cost and efficiency of international logistics operations	54%	46%	0%	0%	0%
Fluctuations in global supply and demand impact inventory levels and delivery timelines	48%	52%	0%	0%	0%
Trade wars and tariffs disrupt global sourcing strategies and supply chain routes	48%	50%	2%	0%	0%
Global competition pressures logistics companies to constantly improve service delivery and reduce costs	50%	48%	2%	0%	0%

Integration into global markets expands supply chain networks and enhances business opportunities	48%	52%	0%	0%	0%
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The statement on whether exchange rate volatility affects logistics operations data collected showed strong agreement, validating the concern that DHL operations in Kenya are affected by global currency shifts. Employees acknowledged that fluctuations in the Kenyan Shilling against the US dollar influence fuel pricing, freight charges, and customs fees. This sentiment reinforces academic discussions on financial volatility as a global logistics risk. On whether global supply and demand imbalances affect delivery timelines, respondents mostly agreed, suggesting DHL staff recognize that international disruptions (like pandemics or geopolitical crises) can strain inventory management. Field data supported case findings where global air cargo shortages delayed shipments. The strong alignment reflects DHL’s experience navigating shifting volumes and delivery schedules due to global trends. In relation to whether trade wars and tariffs disrupt sourcing strategies, respondents agreed moderately, indicating awareness but possibly less direct exposure to international trade conflicts. Nonetheless, they acknowledged that these macroeconomic events force DHL to reroute shipments and source from alternative regions. This finding complements literature on global protectionism's influence on logistics design and supplier relationships. On assessing if global competition pressures improvement, the field data indicated high agreement, with employees recognizing that DHL must continually upgrade systems, adopt new technologies, and cut costs to stay competitive. These findings reinforce literature that highlights digital transformation and customer service enhancements as essential in the global logistics space. On determining if integration into global markets enhances business opportunities, respondents strongly agreed, reflecting DHL Kenya’s benefit from its global footprint. Employees confirmed that their connection to a larger DHL network opens access to markets, improves routing, and strengthens client services. These perceptions validate academic claims that globalization is an enabler of supply chain expansion and competitiveness.

Table 11 Rating effect of government policies and regulations on supply chain linkages

	Strongly Agreed	Agreed	Undecided	Disagreed	Strongly Disagreed
Complex customs regulations and border procedures cause delays in the supply chain	46%	54%	0%	0%	0%
Tax policies and regulatory fees increase the cost of logistics operations	50%	48%	2%	0%	0%
Frequent changes in import/export policies create uncertainty in logistics planning	52%	48%	0%	0%	0%
Compliance with safety and environmental regulations improves operational standards but can slow down delivery times	52%	48%	0%	0%	0%
Supportive government policies enhance logistics performance and promote stable supply chain linkages	46%	52%	2%	0%	0%

In relation to whether complex customs regulations cause delays, there was strong agreement among respondents that bureaucracy and customs delays hinder logistics efficiency. DHL employees highlighted practical difficulties with documentation and inspections, especially at Kenya's major ports and borders. This sentiment aligns with Kenya Trade Network Agency reports and World Bank observations on trade bottlenecks. The statement on whether frequent policy changes create uncertainty field data showed high levels of agreement, indicating staff frustration with sudden regulatory changes that disrupt planning. Respondents cited past experiences with abrupt VAT amendments and import bans that derailed service schedules. These findings confirm that DHL's operational environment is heavily affected by policy unpredictability. On determining if tax policies increase logistics costs, most respondents agreed or strongly agreed, highlighting the burden of regulatory fees and levies. Employees mentioned fuel taxes, licensing fees, and customs duties as factors inflating operational costs. This aligns with empirical findings that excessive regulation in East Africa undermines logistics profitability and investment. The statement on whether compliance with regulations improves standards but may slow delivery field responses reflected moderate agreement, showing staff appreciation for safety and environmental compliance while noting it adds time to processing. DHL employees acknowledged these policies raise service standards but add to loading times and process rigidity. This mirrors scholarly views on the compliance-performance trade-off in regulated sectors. In relation to whether supportive policies enhance performance, respondents strongly agreed, especially praising initiatives like the Integrated Customs Management System (ICMS). They noted faster clearance, reduced corruption, and improved visibility as major benefits. This response aligns with Kenya's logistics policy progress and confirms government support can meaningfully improve supply chain linkage and performance.

Table 12 Rating effect of infrastructure quality on supply chain linkages

The statement on whether Poor road conditions and congestion causes delays had an

	Strongly Agreed	Agreed	Undecided	Disagreed	Strongly Disagreed
Poor road conditions and congestion contribute to delays in delivery schedules	52%	48%	0%	0%	0%
Inadequate warehousing and storage facilities disrupt inventory management	50%	50%	0%	0%	0%
Frequent power outages and limited ICT infrastructure hinder real-time logistics coordination	52%	46%	2%	0%	0%
Investment in modern logistics infrastructure boosts supply chain efficiency and reliability	50%	48%	2%	0%	0%
Quality infrastructure enables faster, safer, and more cost-effective transportation of goods	54%	46%	0%	0%	0%

overwhelming agreement among respondents. DHL staff shared consistent experiences of delays due to Nairobi traffic, poor rural roads, and frequent roadblocks. These real-world concerns validate existing data from logistics performance surveys that rank Kenyan infrastructure as a bottleneck to efficient delivery. In relation to whether inadequate warehousing disrupts inventory management, respondents agreed, indicating DHL must rely on third-party or self-managed warehousing due to the shortage of modern facilities. This supports

studies from Kenya's Industrialization Ministry which show limited cold chain and secure storage as a challenge for logistics companies. On determining if power outages and poor ICT hinder coordination, many respondents strongly agreed, especially regional employees outside Nairobi, who highlighted frequent system failures during outages. DHL's reliance on digital platforms for tracking and routing means such outages weaken visibility and delay communication. These responses match concerns in developing country logistics literature regarding digital infrastructure. On assessing whether infrastructure investment boosts efficiency, there was strong agreement, particularly from staff at DHL's Nairobi hub, where access to the SGR, JKIA airport, and Mombasa Port has streamlined operations. Respondents confirmed improved delivery times and cargo flow when using upgraded infrastructure, aligning with investment-driven efficiency models discussed in international research. On determining if quality infrastructure enables faster, safer, cost-effective delivery, respondents universally agreed, affirming that well-maintained infrastructure (roads, ports, rail) not only enhances speed but also reduces wear and tear on vehicles and lowers fuel costs. This validates World Bank and AfDB studies linking infrastructure investment to reduced logistics costs and improved service reliability in Africa.

4.2 Limitations of the Study

The researcher faced a challenge of limited access to senior management and key decision-makers at DHL Kenya, who hold critical insights into strategic supply chain issues. Due to their busy schedules and the sensitivity of the information, many were unavailable or hesitant to participate, which risked narrowing the depth of the study's findings. To mitigate this, the researcher expanded the sample to include middle-level and supervisory staff directly involved in daily operations, who provided valuable perspectives on how political instability, global dynamics, and infrastructure affect logistics. Flexible interview scheduling and official endorsement from DHL's HR department helped increase participation, ensuring a broader and more balanced data set.

The sensitivity of information concerning supply chain strategies and costs, which made some respondents reluctant to share detailed or candid responses due to confidentiality concerns. This hesitation threatened the completeness and reliability of the data collected. To address this, the researcher guaranteed strict anonymity and confidentiality, clearly communicating that

responses would be used solely for academic purposes and that no identifying information would be disclosed. The researcher also carefully designed the questionnaire to avoid overly sensitive questions, focusing instead on general perceptions, which helped build trust and encouraged more open and honest participation from DHL employees

4.3 Chapter Summary

This chapter provides an overview of the data collected in the field using the distributed questionnaires. The general respondents' age ranges, greatest level of education, gender, and duration of service with the company are all included in two sections. The present relationships between the research variables are covered in the second part.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter contains a summary of the research investigation. It also offers the research's conclusions and suggestions in regard to the acquired field data.

5.1 Summary of Findings

5.1.1 Effect of Political Instability on Supply Chain Linkages

This study established that, political unrest frequently results in the closure of roads, airports, and seaports, which are essential arteries for logistics operations. When transportation corridors are compromised due to protests, armed conflict, or government-imposed curfews, logistics companies are unable to maintain scheduled deliveries. This unpredictability weakens the dependability of supply chain linkages and often forces businesses to seek costlier alternative routes or delay shipments indefinitely. This finding relates to Otieno and Njoroge (2023) who established that, political instability creates a high-risk environment that discourages both public and private investment in logistics infrastructure. Essential components such as roads, ports, and railway networks deteriorate when governments are unable or unwilling to prioritize them. In the absence of reliable infrastructure, logistics companies struggle to optimize their supply chain operations, limiting their ability to expand linkages across regions or attract foreign partnerships.

5.1.2 Effect of Global Market Dynamics on Supply Chain Linkages

The results of this study established that, global market dynamics often bring sudden shifts in demand for certain products due to changing consumer behavior, technological advancements, or crises such as pandemics. Logistics companies must quickly respond to these changes to avoid overstocking or understocking. These abrupt fluctuations strain relationships with suppliers and distributors, as the consistency required for strong supply chain linkages becomes more difficult to achieve. This finding concurs with Williams and Thomas (2023) who indicated that, as logistics operations increasingly cross borders, exchange rate volatility can significantly affect profitability and pricing structures. A weak domestic currency can make imported goods more expensive, alter freight rates, and complicate payment agreements with international

partners. This financial uncertainty often leads to strained relationships and contract renegotiations, weakening supply chain cohesion across countries.

5.1.3 Effect of Government Policies and Regulations on Supply Chain Linkages

This study finding established that, government-imposed tariffs and complex customs procedures can delay the movement of goods across borders and increase logistics costs. These restrictions deter firms from sourcing internationally or partnering with overseas suppliers. Such barriers introduce inefficiencies and reduce trust in global supply chain arrangements, forcing logistics companies to constantly adapt and renegotiate their delivery terms and routes. This finding relates to Murphy and O'Brien (2022) who indicated that, regulatory requirements such as vehicle licensing, staff certifications, and storage permits impose significant administrative burdens on logistics firms. Frequent inspections and documentation demands delay operations and create unpredictability in service delivery. These challenges make it harder to establish reliable networks, especially with international partners unfamiliar with the host country's bureaucratic landscape.

5.1.4 Effect of Infrastructure Quality on Supply Chain Linkages

This research finding established that, efficient and well-maintained transport infrastructure is critical to the smooth functioning of supply chains. High-quality roads, ports, and rail systems allow for faster and safer movement of goods, reducing transit times and operational costs. Conversely, poor infrastructure increases the risk of damage, delays, and congestion, thereby weakening the reliability and responsiveness of supply chain linkages. This relates to Ogunleye and Ajayi (2021) research finding that indicated that, access to modern warehousing and distribution centers enables logistics firms to store, consolidate, and dispatch goods efficiently. Facilities equipped with automation and security systems help reduce inventory losses and improve delivery accuracy. In regions lacking such infrastructure, companies face difficulties in maintaining product flow, which disrupts supply chain synchronization and undermines client satisfaction.

5.2 Conclusion

Unstable political environments often increase the cost of doing business for logistics firms. Security threats, extortion, informal roadblocks, and insurance premiums for cargo in high-risk

areas all contribute to elevated expenses. These costs are typically transferred along the supply chain, reducing overall efficiency and undermining cost competitiveness. Over time, this creates barriers to the formation of sustainable supply chain partnerships.

Political instability influences not only logistics activities but also consumer and supplier behavior. Demand patterns may shift abruptly due to population displacement or reduced economic activity, while suppliers may shut down or relocate due to security threats. These rapid changes weaken planning and coordination among supply chain actors, undermining collaborative efforts and making it difficult to maintain long-term, stable logistics partnerships.

Logistics companies are under continuous pressure to lower costs and improve service due to increased global competition. This demand for efficiency forces firms to reengineer their supply chains, adopt automation, and seek new global partnerships. While this can create opportunities for growth, it also introduces fragility into supply chain linkages, as new alliances may lack the trust and integration of longer-standing relationships.

In today's global economy, disruptions in one part of the world can affect the entire supply chain. For instance, a labor strike in Asia or a raw material shortage in Europe can delay production in Africa and affect delivery in North America. This tight interdependence means that logistics companies must constantly adjust their networks and strategies, often weakening long-established linkages and introducing supply chain vulnerabilities.

Governments are increasingly enacting environmental regulations requiring companies to reduce emissions, adopt cleaner technologies, and report on their carbon footprints. While beneficial for sustainability, these mandates often require costly changes in fleet composition, warehousing, and logistics practices. Compliance efforts may strain resources and affect logistics partnerships, especially with firms operating in regions with less stringent regulations.

Governments that offer tax holidays, investment incentives, or logistics-friendly zones attract firms that are seeking long-term operational stability. In contrast, high taxes, bureaucratic red tape, or frequent policy reversals can drive away logistics providers. This directly affects the scope and strength of supply chain linkages, as companies prefer to operate in regions where the regulatory climate supports efficiency and growth.

Advanced ICT infrastructure allows for real-time tracking, communication, and coordination among supply chain actors. Integrated platforms enhance transparency, forecasting, and performance monitoring, strengthening trust and collaboration among stakeholders. In areas with weak digital infrastructure, logistics firms face challenges in sharing timely information, leading to miscommunication and weakened supply chain performance.

Reliable access to electricity, water, and fuel is vital for warehouse operations, refrigeration, and transport services. In regions with frequent blackouts or fuel shortages, logistics companies incur higher costs and delays. These disruptions impact inventory management, delivery reliability, and customer satisfaction, ultimately undermining strong supply chain linkages across networks.

5.3 Recommendations

Proactively monitoring political developments in operating regions is essential for risk mitigation. Logistics companies should invest in political risk analysis tools and partner with geopolitical intelligence firms to forecast potential disruptions. Timely access to such information allows them to adjust shipping schedules, reroute cargo, or advise clients before instability escalates into full-scale disruption.

Forging strong relationships with local communities and governments can offer a degree of protection and operational continuity during politically unstable periods. Logistics firms should engage in corporate social responsibility (CSR) efforts and employ local personnel who are familiar with the area's dynamics. These partnerships help build goodwill and enable quicker access to support or negotiation during unrest.

To cope with demand fluctuations and global competition, logistics companies should design flexible and scalable supply chains. This can involve using cloud-based logistics platforms, adjustable warehouse contracts, and on-demand labor. Such agility enables firms to quickly scale up or down in response to global market shifts, thereby maintaining steady supply chain linkages with minimal disruption.

To manage exposure to currency fluctuations, logistics companies should adopt financial instruments such as forward contracts, currency swaps, or multi-currency accounts. These tools

help stabilize pricing and payments in international transactions, ensuring financial predictability and stronger collaboration with global supply chain partners. Currency risk management is important for firms operating across volatile exchange environments.

To navigate complex regulatory landscapes, logistics companies should form dedicated units responsible for monitoring compliance with national and international laws. These teams can track policy changes, engage with regulatory bodies, and ensure timely licensing and certification. A strong compliance framework minimizes delays and fines, making the company a more reliable partner in supply chain networks.

Logistics firms should actively participate in industry associations to engage in policy dialogue and advocate for more streamlined regulations. Through collective representation, companies can influence government decisions on customs procedures, tax reforms, and logistics infrastructure investments. Advocacy also allows firms to align with others facing similar challenges, fostering collaboration and shared solutions.

Logistics companies should partner with both government and private investors to improve roads, warehouses, ports, and ICT systems. Public-private partnerships (PPPs) enable resource sharing and foster infrastructure investments in critical areas. By contributing to infrastructure development, logistics firms secure long-term operational benefits and improve the efficiency of supply chain linkages.

To compensate for weak infrastructure, logistics companies can establish centralized hubs equipped with advanced warehousing technologies, fleet tracking systems, and energy-efficient facilities. These hubs act as control centers for optimizing routes, managing inventory, and coordinating deliveries. Modern logistics centers enhance operational efficiency and strengthen coordination with partners across the supply chain.

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APPENDIX I: INTRODUCTION LETTER

The Dalsey, Hillblom and Lynn (DHL) Kenya),
P.O. Box 67577 - 00200,
Nairobi, Kenya

Dear Sir/ Madam,

RE: REQUEST FOR CONDUCTING A RESEARCH PROJECT

I write to seek permission from the leadership of Dalsey, Hillblom and Lynn (DHL) Kenya to allow their employees to help me to conduct my research project work through answering this research questionnaire on this research topic (EFFECT OF IMPEDIMENTS IN SUPPLY CHAIN LINKAGES IN LOGISTICS COMPANIES IN KENYA: A CASE STUDY OF DALSEY, HILLBLOM AND LYNN (DHL) KENYA).

Any form of support that will be granted to me will be of great benefit

Your Sincerely,

Kisara Nicholas Odiwuor

Adm. No ODLBML/29/01443/3/22

APPENDIX II: QUESTIONNAIRE

Kindly, fill this questionnaire correctly in the provided spaces by a TICK. Kindly note that this questionnaire is only for academic purpose

SECTION A: PERSONAL DETAILS

1. Indicate your Gender

Male ()

Female ()

2. Indicate your Highest level of education

Secondary Certificate ()

College Diploma ()

Undergraduate Degree ()

Postgraduate Level ()

3. Indicate your Length of service in this organization

1-2 years ()

3-4 years ()

5 years & above ()

4. Indicate your Age Bracket

18-23 years ()

24-29 years ()

30-35 years ()

36 years and above ()

SECTION B: INDEPENDENT VARIABLES

5. Through the use of a scale of rating of 1-5, where 5 - strongly agree; 4-agree; 3-neutral; 2-disagree; 1 - strongly disagree, rate the effect of political instability, global market dynamics,

government policies and regulations and infrastructure quality on supply chain linkages at DHL Kenya

Political Instability

Statements	1	2	3	4	5
i. Political instability leads to supply chain disruptions by causing trade restrictions, labor strikes and logistical delays.					
ii. Frequent political unrest in a country discourages foreign investments, negatively affecting supply chain partnerships and linkages.					
iii. Unstable political environments increase procurement costs due to higher risks, insurance premiums, and security expenses					
iv. Political uncertainty makes long-term supply chain planning difficult due to unpredictable policy changes and regulations					
v. A politically stable environment enhances supply chain efficiency by ensuring smooth trade and operational continuity					

Global Market Dynamics

Statements	1	2	3	4	5
i. Exchange rate volatility affects the cost and efficiency of international logistics operations.					
ii. Fluctuations in global supply and demand impact inventory levels and delivery timelines.					
iii. Trade wars and tariffs disrupt global sourcing strategies and supply chain routes.					
iv. Global competition pressures logistics companies to constantly improve service delivery and reduce costs					
v. Integration into global markets expands supply chain networks and enhances business opportunities.					

Government Policies and Regulations

Statements	1	2	3	4	5
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i. Complex customs regulations and border procedures cause delays in the supply chain.					
ii. Frequent changes in import/export policies create uncertainty in logistics planning					
iii. Tax policies and regulatory fees increase the cost of logistics operations.					
iv. Compliance with safety and environmental regulations improves operational standards but can slow down delivery times.					
v. Supportive government policies enhance logistics performance and promote stable supply chain linkages					

Infrastructure Quality

Statements	1	2	3	4	5
i. Poor road conditions and congestion contribute to delays in delivery schedules					
ii. Inadequate warehousing and storage facilities disrupt inventory management.					
iii. Frequent power outages and limited ICT infrastructure hinder real-time logistics coordination.					
iv. Investment in modern logistics infrastructure boosts supply chain efficiency and reliability.					
v. Quality infrastructure enables faster, safer, and more cost-effective transportation of goods.					