2025

Crisis response strategies and organizational resilience of cargo airlines in Kenya

Wachira, Hazel
Strathmore Business School
Strathmore University

CRISIS RESPONSE STRATEGIES AND ORGANIZATIONAL RESILIENCE OF CARGO AIRLINES IN KENYA

HAZEL WACHIRA

133931

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF A MASTER OF BUSINESS ADMINISTRATION AT STRATHMORE UNIVERSITY

STRATHMORE BUSINESS SCHOOL,

STRATHMORE UNIVERSITY,

NAIROBI, KENYA

MAY 2025

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other university. To the best of my knowledge and belief, this research project contains no material previously published or written by another person except where a reference is made in the thesis itself.

Signature: …… Date: ….19th May 2025.

Hazel Wachira

133931

APPROVAL

This research project of Hazel Wachira has been reviewed and approved for examination by:

Signature: Date….19th May 2025

Dr. William Murithi

Strathmore Business School

Strathmore University

DEDICATION

This dissertation is dedicated to my family, whose unwavering support and encouragement have guided me throughout this academic journey. It is also dedicated to my supervisor for his invaluable guidance and expertise, and to my colleagues and friends, whose insights and camaraderie have enriched this experience.

Special thanks to aviation and, particularly air cargo professionals. I dedicate this thesis to the professionals in the cargo airline industry whose hard work, innovation and excellence continue to inspire me and deepen my passion for this field.

ACKNOLWEDGEMENTS

I would like to express my sincere gratitude to my supervisor, Dr William Murithi, for his exceptional guidance, insightful feedback, and unwavering support throughout this research project. His expertise, dedication, and constructive critiques have been invaluable in shaping the direction and quality of this work. I am deeply appreciative of their mentorship and the time they invested in ensuring the success of this project.

I am also profoundly grateful to my parents, whose constant encouragement, support, and belief in my abilities have been a source of strength and inspiration. Their sacrifices, guidance, and unwavering faith in my endeavors have been pivotal in my academic journey, and I owe much of my accomplishments to their love and dedication.

Additionally, I would like to extend my appreciation to the professional networks and communities that have played a significant role in the development of this research project. The insights and collaboration gained through these networks have enriched my understanding and contributed greatly to the depth of this work.

A special thanks to Strathmore Business School Fraternity for providing the resources, environment, and support necessary for this research. The academic community and facilities have been instrumental in fostering my growth and enabling this work to come to fruition.

To my extended family, friends, and colleagues, I extend my heartfelt thanks for their continuous support and encouragement. Their understanding and patience throughout this demanding process have been greatly appreciated.

Above all, without God's guidance and grace, none of this would have been possible.

ABSTRACT

During the COVID-19 Pandemic, the airline industry, cargo airlines included, faced major disruptions due to global travel restrictions. As uncertainty grew, these companies had to adopt different strategies to stay afloat. This study looks specifically at how cargo airlines in Kenya responded, focusing on how their crisis strategies influenced organizational resilience. The research set out to achieve three goals: to assess how positioning, cost-cutting, and diversification strategies affected organizational resilience among these airlines. The study was based on the established business framework, such as the dynamic capability view, and the research used a correlational design targeting 25 cargo airlines. From each airline, respondents included top-level, mid-level and lower management, totaling 75 respondents, and the data collection tool was sampled through a pilot study. Data was gathered using online questionnaires and analyzed using descriptive statistics, correlations and regression tests. The results indicated that diversification strategies had a positive and statistically significant effect on organizational resilience, underscoring the importance of strategic flexibility and market diversification in enhancing an organization's ability to adapt and thrive during crises. In contrast, both positioning and cost reduction strategies were found to have non-significant relationships with organizational resilience. The study contributes to theory by reinforcing the applicability of dynamic capability theory and Balance Scorecard in resilience research, and to practice by highlighting the importance of market and product diversification. Policy recommendations include the development of supportive frameworks for diversification and innovation in air cargo operations. Future research should explore the longitudinal impacts of strategic responses across varied contexts in Africa’s aviation sector.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

ACTKs	Accessible Cargo Tonne-Kilometers
BSC	Balanced Scorecard
CAGR	Compound Average Annual Growth Rate
CEO	Chief Executive Officers
CFO	Chief Financial Officer
COO	Chief Operating Officer
CTKs	Cargo Ton Kilometers
DCs	Dynamic capabilities
DCT	Dynamic Capability Theory
DHL	Dalsey Hillblom Lynn
FedEx	Federal Express
FTK	Freight Tonne Kilometers
ICAO	International Civil Aviation Organization
ICR	Internal Consistency Reliability
JKIA	Jomo Kenyatta international Airport
KAA	Kenya Airports Authority
KCAA	Kenya Civil Aviation Authority
M&As	Mergers and Acquisitions
MNCs	Multinational Companies
NACOSTI	National Commission for Science, Technology, and Innovation
OLS	Ordinary Least Squares
ROT	Real Option Theory
SARS	Severe Acute Respiratory Syndrome
SU-IERC	Strathmore University Institutional Ethics Review Committee
SCA	Sustainable Competitive Advantage
SPSS	Statistical Package for the Social Sciences
SWOT	Strength, Weaknesses, Opportunities, And Threats
TCAA	Tanzania Civil Aviation Authority
UAE	United Arab Emirates
UPS	United Parcel Services

US	United States
WHO	World Health Organization

CHAPTER ONE:
INTRODUCTION

1.1 Background of the Study

The air cargo industry is responsible for the $6 trillion transportation of goods around the world, and this is approximately 35% of international trade value. Every year, air transportation moves more than 52 million tons, which is approximately 1% of international trade by volume and 30% of value. The industry provided about 10% to 15% of total revenue for airlines before the pandemic, fetching $102.4 billion, which is approximately 12.3% of total airline revenues (Arora et al., 2021). There was significant disruption to the industry following the COVID-19 pandemic as the announcement by the world health organization (WHO) of it as a pandemic saw global demand for air cargo measured cargo ton kilometers (CTKs) decline to 27.7% compared to the expected 29.5% of the international capacity measured in accessible payload ton kilometers (ACTKs). This was a 42% shrinkage in comparison to the previous year, while air payload for belly cargo transportation shrank by 75% (Maneenop & Kotcharin, 2020; Bouali et al., 2020; Irungu & Kitur, 2023).

The numbers were even alarming at the national level. In Turkey, domestic and international cargo traffic decreased by 39.8% and 41.6%, respectively (Demir et al., 2021). In Asia Pacific, the freight tonne kilometers (FTK) fell by 6.4% in 2020 while global air cargo demand declined by 15.5% and freight capacity fell by 24.4% within the periodp. (Paethngrasi, 2021). Total cargo operations of airlines in the Asia-Pacific region fell by 21.3 % in the mid-year of 2020 compared to the year before (Paethngrasi, 2021).

In the African region, its air cargo landscape remains the weakest region worldwide. According to the International Civil Aviation Organization (ICAOs) the expected Compound Average Annual Growth Rate (CAGR) for Africa will attain 2.2% FTK by 2042 while world air cargo will grow over the next years by 4.2% annually (Hajjar & Kaitouni, 2018). In Egypt, export cargo carried decreased by 19%, exports recorded 50,658 tons in FY2020/2021 versus 62,819 tons recorded in 2020/2021 (EgyptAir, 2022) while cargo tonnage reduced from 40,622 tons to 10,532 tons in Mauritius indicating a 74% decline (Air Mauritius, 2022). In Tanzania, cargo recorded a 0.98 %

decrease from 24,172.2 tons in 2019/20 to 24,389.6 tons in 2018/19, while international cargo handled declined by 2.4%, from 21,581.81 tons in 2018/19 to 21,063.7 tons in 2019/20 (Tanzania Civil Aviation Authority [TCAA], 2021). In Kenya, cargo tonnage for Kenya Airways (KQ) freighters and belly aircraft fell by 27.6%, declining from 68,264 tonnes reduced to 49,418 (Kenya Airways, 2021).

The effects of these disruptions extended far beyond the aviation sector itself. A report by International Air Transport Association (IATA, 2021) estimated that the global airline industry lost over 2.3 million jobs, due to reduced operations with many of these tied direct to cargo logistics, freight forwarding and ground handling services. Small and medium-sized enterprises (SMEs) that depend on timely cargo deliveries for imports and exports also suffered, particularly in sectors such as pharmaceuticals and agriculture. In developing economies where air freight is often the fastest and most reliable mode of transport for high-value goods, these disruptions contributed to supply chain breakdowns and weakened economic output (IATA, 2021). These disruptions exposed the vulnerability of the air cargo industry, particularly in developing regions and highlighted the need for strategic resilience to withstand future global crises (UNCTAD, 2021)

1.1.1 Crisis Response Strategies During the Pandemic

A crisis can be described as a sudden, unexpected situation that disrupts normal operations and threatens the survival or stability of an organization. It often creates a sense of urgency and demands quick decision-making, typically under pressure and with limited information. Over time, researchers have defined crisis in slightly different ways, depending on the context and focus of their studies. Pearson Clair (1998) defined crisis as a low probability, high impact event that threatens the viability of an organization and is characterized by ambiguity of cause, effect and means of resolution. Their definition is widely cited and emphasizes how crises tend to catch organizations off guard, forcing them to operate in uncertain conditions where there may be no clear solutions. Similarly, (Coombs, 2007) explains a crisis as the "perception of an unpredictable event that threatens important expectancies of stakeholders and can seriously impact an organization's performance and generate negative outcomes". This view highlights how the perception of a crisis can influence its impact, especially when it affects stakeholder trust and an organization's

reputation. Bundy et al, (2017) takes a broader approach by describing a crisis as an "event perceived by stakeholders to threaten an organization's survival and to challenge its core values and operations". Their definition adds to the dimension of external pressure, showing how stakeholders' expectations can shape the response and recovery process.

For this study, which focuses on crisis response strategies and organizational resilience among cargo airlines in Kenya, the definition by Pearson and Clair fits best. The COVID-19 pandemic is a clear example of a rare but deeply disruptive event. It forced cargo airlines to act under uncertainty with reduced demand, restricted operations and changing regulations. This context mirrors the ambiguity and high-stakes environment described in Pearson and Clair's definition, making it the most relevant for the scope and focus of this research.

The extant literature indicates studies from around the world that focused on the crisis response associated with the COVID-19 pandemic (Gualini, 2023; Jaroenjitrkam, Kotcharin, & Maneenop, 2023; Yong & Laing, 2021; Kiraci et al., 2023; Chutiphongdech et al., 2023; Su et al., 2023; Arrigo, Beccarello, & Di Foggia, 2023; Ansaharju & Sorvi, 2023; Belhadi et al., 2020; Serfontein & Govender, 2021; Ebenuwa, 2022; Musengi, 2021; Nyamoh, 2022). These studies highlight challenges faced within the airline industry during the pandemic and some of the response strategies used. For instance, Gualini (2023) revealed that international carriers resulted in domestic flights while regional carriers resulted in middle seat blocking in the United States (U.S). Jaroenjitrkam et al. (2023) found that diversification and mergers and acquisitions (M&As) were adopted to offset the negative effects of the pandemic. Additionally, Yong and Laing (2021) reported that internationalization contributed to more resiliency to economic shocks caused by the pandemic. Further, Kiraci et al. (2023) determined that information, operational, and financial factors were significant in contributing to airlines' resilience, while Chutiphongdech et al. (2023) established that technology use, government support, airline management, and passenger-based collaboration were airline businesses' strategic responses to the pandemic.

In the European market, Su et al. (2023) found that market concentration contributed to positive resilience to both domestic and international carriers. Arrigo et al.'s (2023)

research in Europe (France, Germany, Italy, and Spain) revealed that strategic positioning, cost reduction, and diversification were adopted in response to the pandemic by airlines. Ansaharju and Sorvi (2023) research determined that organizational structure, financial resilience, scenario planning, operational efforts, and model adaptations contributed to the resilience of airlines. Belhadi et al (2020) found that cooperation among supply chain actors and accelerated use of digital technologies contributed to airline resilience, while Suk and Kim (2021) revealed that changing from passenger flights to high-demand products and pharmaceutical supplies.

Studies have also emerged that focused on the Sub-Saharan African context regarding some of the strategies that airlines used to respond to the crisis. For instance, Serfontein and Govender (2021) reported that corporate governance and quality assurance contributed to organizational resilience in South Africa. In Nigeria, organizational responsiveness was positively related to marketing resilience of domestic airlines (Ebenuwa 2022), while compensation, feedback, communication, apologies, explanation, and empowerment as service recovery strategies had a positive effect on airline resilience. Further, in Kenya, Musengi (2021) established that promoting an innovative culture contributed to airline resilience in Kenya, while Nyamoh (2022) found that KQ adopted cost reduction strategies during the pandemic.

Based on the foregoing discussion, the review of the studies indicates that there are different independent strategies that were adopted by air cargo actors in the industry globally, regionally, and domestically during the pandemic. Out of these strategies, the researcher synthesized and categorized them into positioning, cost reduction, and diversification strategies and were consequently adapted as the study's independent variables..

1.1.2 Organizational Resilience

Organizational resilience is defined as the capability of a business to evolve and adapt to its environment by being able to respond to short-term shocks and shape itself to respond to its long-term challenges (Carri, 2019). Li (2020) defined organizational resilience as a unique ability of an organization to respond to, prepare for, and learn from adverse events to bounce back for survival in the short term and reach forward. Overall, it is the differential capability of companies to respond to, anticipate, recover

from and learn from adversity. This definition by Li (2020) includes all perceptions with all adverse events as the central predecessor, responding, preparing, and learning as the main approaches across three stages, and thriving and surviving as the main results. The study adopts this definition by Li to define organizational resilience in the context of the airline industry.

Scholars in the field of organizational resilience have identified several aspects of organizational resilience. Khan et al. (2019) proposed four means of thinking when it comes to organizational resilience as defensive consistency, defensive flexibility, progressive consistency, and progressive flexibility. Serfontein and Govender (2021) identified strategic management, awareness and monitoring, company culture, responsive adaptation, and exposure management as dimensions of organizational resilience. Hepfer and Lawrence (2022) explained organizational resilience to include strategic, operational, and functional resilience, and each has unique outcomes, dynamics, and foundations. Musengi (2021) measured organizational resilience by customer complaints, customer retention, total sales revenues, market share, cost reduction, operational efficiency, and innovation.

Based on the foregoing discussion on organizational resilience, it is evident that an interest in the concept of organizational resilience and this has resulted in multiple models or frameworks that have been adopted to measure the concept. There exists no consensus on an organizational resilience theory that explicitly presents the constructs to be adopted in research. Therefore, the study adopts Hepfer and Lawrence's (2022) typology of organizational resilience, namely: strategic, operational, and functional resilience. This were used to conceptualize the study's independent variable within the airline sector studied. To further understand the nuances that the airline sector faces, the next section focuses on the cargo airline in Kenya. Further, this section will outline the specific challenges to the Cargo Airline sector in Kenya in line with the study’s focus.

1.1.3 Cargo Airline Companies in Kenya

The Kenya Civil Aviation Authority (KCAA) regulates all air services in the country, including cargo and passenger. The Civil Aviation Act, 2013 and the Civil Aviation Regulations, 2018 categorize air services into transport of passengers or cargo or mail or a combination. On the other hand, the Kenya Airports Authority (KAA) owns and

operates 9 civilian airstrips and airports and is mandated to provide secure, safe, and efficient services that contribute to regional connectivity and economic growth (Irungu & Kitur, 2023). Generally, there are different business models adopted by airlines, ranging from combination carriers, all-cargo, and passenger airlines. All-cargo airlines operating aircraft called freighters, while those that offer a part of their cargo capacity is shared on passenger flights are referred to as combination carriers (Anyango, 2014). There is an increased regulation imposed by the mandated organizations in Kenya's air cargo environment due to changing technology, competition rivalry, and governing airlines, which all pose a threat to cargo airline companies' operation (Irungu & Kitur, 2023).

Further, Bouali, Douha, and Khadri (2020) explained that air cargo traffic is affected by economic growth in comparison to passenger traffic. Therefore, this study does not include railway and water transport cargo. The air cargo subsector is further grouped into commercial cargo and mail cargo. Out of the two, the study is limited to commercial cargo given its importance for the global supply chain, including for food and pharmaceuticals, and the subsector did not experience the restrictions from the COVID-19 pandemic as experienced by passenger airlines. Therefore, airline cargo players had to adjust their strategies to match this new reality to maintain and further their competitive advantage and performance, therefore, organizational resilience.

Air cargo transport can further be categorized into freight and belly cargo transport, where the former refers to dedicated freighters for cargo transportation, while the latter refers to air cargo capacity in passenger aircraft. There are 4 business models common in air cargo transport. First, the all-cargo carriers' operation of dedicated fleets of freighter aircraft. Second, belly cargo carriers only ferry passengers but also ferry cargo in the holds of their aircraft as an extra revenue stream. Third, express carriers are companies that provide door-to-door services, including Dalsey Hillblom Lynn (DHL), Federal Express (FedEx), and United Parcel Services (UPS). Lastly, combination carriers fly both freighter and passenger aircraft and exclusively collaborate with freight forwarders to provide delivery and pickup services to the final customer (Airports Council International, 2020). Based on this classification, Table 1.1 shows 25 air cargo companies operating in JKIA as listed by Kenya Airports Authority, the official souce.

Table 1.1: Air Cargo Categories

Category	Number
1 Cargo Carriers	14
2 Cargo Belly Carriers	4
3 Courier Companies	7
Total	**25**

Source: Kenya Airports Authority Website (2025)

1.2 Problem Statement

Based on the national statistics from all airports in Kenya. total air cargo was 84,471.9 tonnes in 2019 (pre-pandemic), increasing to 89,589.5 tonnes in 2020 and declining to 72,029.8 tonnes in 2021 and later rising to 83,382.7 tonnes in 2022 (Kenya National Bureau of Statistics [KNBS], 2022, 2023). In Kenya, cargo tonnage for Kenya Airways (KQ) freighter and belly aircraft fell by 27.6%, declining from 68,264 tonnes to 49,418 (Kenya Airways, 2021). There has been considerable interest from researchers (Gualini, 2023; Jaroenjitrkam et al., 2023; Yong & Laing, 2021; Kiraci et al., 2023; Chutiphongdech et al., 2023; Su et al., 2023; Arrigo et al., 2023; Ansaharju & Sorvi, 2023; Belhadi et al., 2020) on organizational resilience of cargo airlines from their crisis response strategies.

Yet, some gaps are evident. Conceptually, there is a lack of uniformity and consistency in identifying the various crisis response strategies into exhaustive and heterogeneous groups (Gualini, 2023). This gap was addressed by identifying these strategies as positioning, cost reduction, and diversification strategies. Additionally, organizational resilience has also not been adequately defined or measured, and this study fills this gap by using Hepfer and Lawrence (2022) typology of organizational resilience, namely: strategic, operational, and functional resilience.

Contextually, most studies present a Western, Asian, and European experience, and less evidence exists from a sub-Saharan Africa (SSA) setting. This research gap was filled by presenting evidence from Kenya. Methodologically, most of the evidence were found to have over-reliance on descriptive or qualitative studies and therefore, this study was intended to employ statistical testing to examine association and relationships between crisis response strategies and organizational resilience.

Despite these experiences, there has been limited research on crisis response strategies and the resilience of cargo airlines in the context of developing nations. In Kenya,

Musengi (2021) research found that business continuity planning contributed to cargo airline resilience in Kenya, while Nyamoh (2022) research found that cargo airlines reduced their workforce and improved the capacity of aircraft maintenance domestically to reduce costs. However, these studies were limited to business continuity planning and KQ cargo carriers. It is pertinent for more research into the organizational resilience of cargo airlines in Kenya due to its location and status as a leading economy in the region from which other neighboring nations acquire products from its airports. Thus, this research examined the internationally adopted crisis response strategies and their influence on the resilience of local cargo airlines.

1.3 General Objective

This research examined crisis response strategies and their effect on the organizational resilience of cargo airlines in Kenya.

1.3.1 Specific Objectives

The study was guided by these specific objectives.

i. To establish the influence of positioning strategies on organizational resilience among cargo airlines in Kenya.
ii. To determine the influence of cost reduction strategies on organizational resilience among cargo airlines in Kenya.
iii. To evaluate the influence of diversification strategies on organizational resilience among cargo airlines in Kenya.

1.4 Research Questions

The study aimed to answer these questions.

i. What is the effect of positioning strategies on the organizational resilience of cargo airlines in Kenya?
ii. What is the influence of cost reduction strategies on the organizational resilience of cargo airlines in Kenya?
iii. What is the effect of the diversification strategies on the organizational resilience of cargo airlines in Kenya?

1.5 Scope of Study

There are three types of cargo airline organizations in Kenya namely: cargo carriers, Cargo Belly Carriers, and Hub Airlines. Furthermore, the air cargo subsector is

further grouped into commercial cargo and mail cargo. Cargo airline companies operate from JKIA, Mombasa International Airport (MIA), Eldoret International Airport (EIA) and other airports around the country. Majority of cargo moves through the JKIA and the 25 companies operating from this site represented the units of analysis. The literature is replete with different crisis response strategies adopted by organizations during the pandemic. However, this study conceptually focused on the positioning, cost reduction, and diversification strategies that were adopted by international cargo airline companies. Contextually, the study was conducted among cargo airline companies and their management staff and focused on the cargo airline sector that operates from the Jomo Kenyatta International Airport (JKIA) and thus excludes other national, domestic and international airports in Kenya. Methodologically, the study was bound under a positivist and a correlational research design that incorporated a quantitative research design using a structured questionnaire to collect data. The study was conducted between February and May 2025.

1.6 Significance of the Study

The findings are aimed to be of benefit to policy, practice, and theory.

1.6.1 Contributions to Policy Making

The government should develop policy guidelines to improve cross-border agreements with non-traditional markets that allow easier and faster movement of cargo between countries and regions, especially during global crises where trade routes may be disrupted. In addition, the governments can give priority to movements of essential goods for cargo airlines to face little or no restrictions or delays in international trade. Such actions could include pausing tariffs on these essential goods or providing customs support to speed up the processes.

Based on the study's findings, it is evident that diversification strategies significantly enhance the resilience of cargo airlines. As such, policy efforts should encourage airlines to broaden their operations by investing in related services such as freight forwarding, cold chain logistics and e-commerce cargo. Government bodies like the Kenya Civil Aviation Authority (KCAA) and the Ministry of Transport could support this through targeted incentives, including tax relief and funding programs aimed at promoting innovation and diversification in the air cargo sector.

While cost-cutting and positioning strategies were found to have no significant impact on resilience during crises, they still play important roles if approached strategically. Instead of broad cost reductions, airlines should be guided toward efficiency-based cost management, such as adopting lean operations or automating key functions. Similarly, positioning strategies that focus on long-term competitiveness, like improving digital systems or using market intelligence, should be supported through knowledge sharing platforms and innovation grants. These measures would help airlines prepare for future disruptions without undermining their core capabilities.

To strengthen crisis preparedness across the sector, the study recommends the development of a national aviation resilience framework. Led by KCAA, or Kenya Association of Air Operators (KAAO), this framework should include standardized risk assessment procedures, crisis communication protocols and coordinated response mechanisms. Additionally, building capacity through leadership and crisis management training is crucial and hence, collaborations with academic institutions and international aviation organizations could help deliver specialized training to equip airline personnel with the skills necessary to navigate future shocks effectively.

1.6.2 Contribution to Practice

The study recommends that top leadership and managers in the sector focus on building their market and product diversification to enhance their resilience in times of crisis. This involves searching and reconfiguring their existing operations to better capture opportunities in non-traditional markets such as Latin America, Australia, and other regions of Asia than focusing on the traditional sectors of floriculture in Europe and the US.

This study provides practical value to cargo airline managers by identifying the crisis response strategies that most effectively support organizational resilience. The research shows that diversification strategies – such as expanding services, entering new markets, or integrating logistics – play a critical role in enabling airlines to withstand and recover from disruptions like the COVID-19 pandemic. These findings equip practitioners with evidence-based guidance to shape their strategic planning and operational decisions during both crises and normal business cycles.

For policymakers and regulators, the study offers actionable insights to inform aviation policy and regulatory frameworks. By demonstrating that cost-cutting and positioning strategies had minimal impact on resilience, the research encourages a shift toward supporting innovation and diversification. Authorities like the Kenyan Civil Aviation Authority (KCAA) and the Ministry of Transport can use this data to develop targeted incentives and resilience-building policies that better support cargo airlines in times of crisis.

Finally, the study contributes to industry capacity building by emphasizing the need for leadership and crisis management training. The findings can guide aviation training institutions, regulatory bodies and professional associations in designing specialized programs focused on crisis response, risk management and organizational adaptability. These efforts would strengthen the leadership pipeline within the sector and ensure that airlines are better equipped to manage future shocks.

1.6.3 Theoretical Contributions

The study was guided by the generic strategy, balanced scorecard, and dynamic capabilities view theories. The findings found that diversification strategies had a positive and significant effect on the organizational resilience of cargo airline companies. This provides empirical evidence for the dynamic capabilities view from the Kenyan context, thereby contributing to the literature on resilience in the sector during the pandemic.

This study makes a clear contribution to theory by examining the relevance and application of three major strategic frameworks – Porter's Generic Strategies, the balanced Scorecard and the Dynamic Capabilities View (DCV) – within the context of cargo airlines in Kenya. Of particular significance is the support it provides for Dynamics Capabilities View (DCV). The finding that diversification strategies have a positive and significant influence on organizational resilience directly reinforces the idea that firms can improve their ability to survive and adapt in turbulent environments by reconfiguring their resources and capabilities, particularly in high-uncertainty conditions like the COVID-19 pandemic.

The study further contributes to theory by expanding the application of the DCV into a new geographic and industry context. While much of the existing research on

dynamic capabilities has focused on firms in developed economies, this study demonstrates that the framework also holds value for firms in emerging markets, specifically within Africa's aviation sector. By showing that Kenyan cargo airlines benefit from diversification during a crisis, the research validates the broader applicability of the DCV beyond high-capital or technologically advanced organizations. This regional contribution enriches the literature by incorporating voices and evidence from underrepresented markets, offering a more global perspective on strategic adaptability and resilience.

Although the BSC and Porter's Generic Strategies were less predictive in this study, their inclusion still adds theoretical value. Their limited influence on resilience in a crisis context suggests that conventional strategy models may not fully capture the complexities organizations face during global disruptions. These findings call for further theoretical exploration into how traditional performance measurement and competitive strategy frameworks might be integrated with more flexible, dynamic approaches. In this way, the study encourages future scholars to investigate hybrid models that combine structured planning tools with adaptive capabilities, particularly in crisis-sensitive industries like air cargo.

1.7 Chapter Summary

This chapter introduced the study by presenting the background, context, and rationale for examining crisis response strategies and organizational resilience within Kenya's cargo airline sector. The chapter concluded by stating the research objectives and setting the stage for further exploration of how Kenyan cargo airlines responded to the crisis and what strategies proved most effective in enhancing resilience.

CHAPTER TWO:
LITERATURE REVIEW

2.1 Introduction

This chapter focuses on introducing theories on which the research was anchored on as well as presenting past empirical studies. It also presents the existing research gaps, conceptual framework, and operationalization of variables.

2.2 Theoretical Framework

In the study of crisis and organizational resilience, several theories have been adopted, including but not limited to dynamic capability theory (Teece, Pisano, & Shuen, 1997; Eisenhardt & Martin, 2000), transaction cost theory (Coase, 1937; Williamson, 1979), real option theory (Kogut & Kulatilaka, 2001; McGrath, Ferrier, & Mendelow, 2004); and Situational Crisis Communication Theory (Coombs, 2012). To explore the role of crisis response strategies, the study was guided by generic strategies (Porter, 1985), balanced scorecard (Kaplan & Norton, 1992), and the Dynamic Capabilities View (Teece et al., 1997) theories. The theories are introduced, their arguments described, and their relevance for this study outlined.

2.1.1 Porter's Generic Strategies

Porter's (1980) generic strategies argue that there are three ways in which firms can achieve competitive advantage, namely cost leadership, product differentiation, and focus strategies. The theory postulates that an organization can choose either of these strategies or risk the chance of being "stuck in the middle" (Permadi et al., 2021).

Cost leadership strategy is achieved by lowering costs and cost benefits that lessen manufacturing costs, time, and reengineering activities (Permadi et al., 2021). Product differentiation strategy meets a special client need by designing the service or product to allow companies to charge a premium price to capture market share. If effectively adopted, the company provides superior or unique value to clients by product features, quality, or after-sales support. Focus strategy aims to adopt a slim competitive scope within a sector to grow market share by operating in a niche market which is often overlooked or not usually attractive to larger competitors. Being niche comes from

several determinants, namely product requirements or specifications, geography, and buyer characteristics (Islami, Mustafa, & Latkovikj, 2020).

Porter's theory has been confirmed in past studies. For example, Odhiambo and Wanjira (2019) found that the three generic strategies contributed positively to position and, in turn, the competitive advantage of commercial banks. Farhiya (2015) confirmed that generic strategies contributed to sustainable competitive advantage (SCA) in non-profit organizations (NPOs) and found that the differentiation variable was an important component of strategic positioning. Tessarolo, Azolin, and Louzada (2023) found that adoption of product differentiation or cost leadership was advantageous for companies in volatile and competitive environments.

The three generic strategies will be adopted as indicators for the independent variables in this study to assess the decisions of managers at cargo airlines during the pandemic to remain resilient in that uncertain environment. Previous research (Permadi et al., 2021; Lapersonne, 2017) have used a similar approach to examine organizational resilience in times of uncertainty.

2.1.2 Balanced Scorecard

Kaplan and Norton (1996) advanced the Balanced Scorecard (BSC) four-dimensional framework (Junior, et al. 2018). BSC aims to create an equilibrium between internal process business, customer, financial, learning and growth indicators against traditional financial indicators. Financial indicators are deemed not holistic in explaining organizational performance since organizational culture, talent, and customer relationships are also important to explain performance (Yawson & Paros, 2023). The financial perspective indicators aimed to reduce costs and increase productivity, revenues, and the level of asset use (Bajnai & Popovics, 2020). Customer perspective explains conventional marketing, which includes identifying consumers' satisfaction, loyalty, and customer retention (Bilbas, 2018). The internal business process aims to identify significant competencies that a company must be good at to achieve its objectives from customer and financial perspectives. The innovation and learning perspective purpose is to make sure that the staff abilities and information technology used in the company are up to date (Bilbas, 2018).

Several past studies have provided evidence for the application of the BSC to cost reduction in companies. For instance, Bilbas (2018) established a positive effect of financial and internal business processes perspectives on cost reduction. Gupta et al. (2020) found that companies may be able to reduce their costs by adopting internal business processes that are more efficient by adopting technology and cost-efficient services. Bataineh et al. (2019) showed a significant effect of BSC perspectives on cost reduction. Thus, in this study, the four BSC components will be used to measure the cost reduction strategies of cargo airlines.

While cost reduction is traditionally viewed through a financial lens, the BSC enables a more comprehensive evaluation by incorporating non-financial dimensions such as customer perspective, internal process efficiency and organizational learning. By aligning cost-saving actions with the four BSC perspectives—financial, customer, internal business processes, and learning and growth—the study captures a holistic view of how cost reduction strategies influence organizational resilience.

The BSC was used in this research to guide for the evelopment of indicators for the cost reduction strategies. Thus, for each of the four perspectives, specific indicators were identified to evaluate how cost-cutting measures were implemented and their effects. For instance, the financial perspective ws measured by operating cost reductions, while the customer perspective was assessed by any changes in service quality. The internal business process dimension was evaluated by operational efficiencies, and the learning and growth component examined by impacts on staff development and innovation. This approach ensures that cost reduction is not assessed in isolation, but rather in terms of how it shapes the organization's capacity to remain resilient during and after a crisis.

2.1.3 Dynamic Capabilities View

The dynamic capability view (DCV) was proposed by Teece et al. (1997) and later advanced by Eisenhardt and Martin (2000) and is generally considered an extension to address the limitations of the RBV (Haarhaus & Liening, 2020). Capabilities are a company's ability to carry out certain activities (Tallot & Hilliard, 2016). These capabilities can be distinguished as operational capabilities (zero-order) that are geared towards the operational functions of a company, while dynamic capabilities

are focused on modifying operational capabilities and influencing changes to a company's production processes or products (Wan et al., 2011).

Noori et al. (2012) defined dynamic capabilities (DCs) as a company's ability to sense (recognize), seize (integrate), and leverage on resources and linking them to the changing environment to create value. This means that DCs improve the company's ability to change primary internal skills, enabling strategic changes in difficult contexts and generating a competitive advantage. Wan et al. (2011) explained that redeployment of capabilities and resources among associated businesses over time, as companies exit some markets while entering others, which assists companies in diversifying into related businesses.

Several studies show a positive link between dynamic capabilities and diversification of companies. For example, Githira (2008) found that insurance companies in Kenya's diversification strategies were influenced by their dynamic capabilities. Using a sample of SMEs, Tallot and Hilliard (2016) found that managers through strategic decision making on sensing, seizing, and transforming variables of DCV were able to diversify their operations. Lee and Slater (2002) found that multinational companies (MNCs) were able to successfully navigate crisis periods by exploiting their DCs to implement international diversification. Therefore, DCV components of sensing, seizing, and transforming will be used to determine which managers were able to implement firm diversification during the pandemic as a crisis response strategy.

The research followed Prayag et al. (2024) study, where DCs associated with response strategies during the pandemic were: reconfiguring, creating, developing, and assimilating. The assimilating DCs facilitate organizations to sense and recognize information available from external networks (Prayag et al., 2024). Creating DCs allow organizations to quickly modify markets and products (Prayag et al., 2024). Developing DCs allow organizations to capitalize on external networks to respond to crisis situations (Prayag et al., 2024). Reconfiguring DCs improve flexibility through boosting the ability to combine, extend and exploit organization know-how for fast decision-making capabilities to respond (Prayag et al., 2024). Therefore, diversification strategies of airline cargo companies were assessed based on these four dimensions.

In this study, dynamic capabilities are critical in explaining how cargo airlines responded to the disruptions caused by the COVID-19 pandemic. The adoption of diversification strategies demonstrates a firm's ability to adjust its service offerings and operational models in ways that support continued performance under crisis conditions. From a practical standpoint, the DCV offers a valuable framework for understanding how firms in volatile and resource-constrained settings, such as the African Aviation industry, can proactively adapt to change. Rather than relying on stability, the DCV emphasizes strategic agility, making it particularly suited for analyzing organizational resilience during unpredictable events like global pandemics.

2.1.4 Theoretical Framework

This study draws upon three well-established theoretical frameworks, Porter's Generic Strategies, the Balanced Scorecard (BSC), and the Dynamic Capabilities View (DCV), to offer a holistic explanation of how cargo airlines in Kenya navigated the disruptions caused by the COVID-19 crisis. Each framework contributes uniquely to the structure and logic of the research and plays a distinct but complementary role in guiding the investigation. Porter's Generic Strategies (cost leadership, differentiation, and focus) inform the study's independent variables, particularly positioning and cost reduction strategies. These strategies explain how firms attempt to remain competitive and survive during crisis conditions. The Balanced Scorecard, on the other hand, supports both the measurement and evaluation of how these strategies impact multiple dimensions of performance, including customer satisfaction, internal efficiency, financial outcomes, and long-term learning and growth. Meanwhile, the Dynamic Capabilities View serves as the anchor theory of the study by providing an overarching explanation for how organizations adapt and reconfigure their strategies to maintain resilience, the dependent variable.

Together, these theories offer a layered understanding of resilience during periods of disruption. The DCV supports the core argument that resilience is not a fixed trait, but rather an outcome of strategic flexibility and adaptation. Porter's model identifies the strategic approaches firms adopt under pressure, while the BSC helps assess the broader performance implications of those strategies. Prior research supports this integrative approach. For instance, studies by Chatzoglou, Chatzoudes, & Kipraios,

(2018) and Gomezelj, (2016) have used combinations of strategic management theories and performance measurement frameworks, including Porter's strategies and BSC, to explore how strategic alignment influences business performance in dynamic environments. These studies show that when used together, these models provide more robust insights than when applied in isolation.

2.3 Empirical Literature

This empirical review highlights past studies that have examined the relationship between crisis response strategies (positioning, cost reduction, diversification strategies) and organizational outcomes, including performance, competitive advantage, and resilience. The studies are presented from a global, regional, and local experience, indicating their objective, methods, findings, implications, and limitations.

2.3.1 Positioning Strategies and Organizational Resilience

The evidence indicates that product positioning was adopted by airline companies during the pandemic. In Brazil, for example, Santos, Oliveira, and Aldrighi (2021) investigated the COVID-19 pandemic on air transport and its future market position using a two-step regression method. The method revealed that the low-density and short routes were the most severely affected, while business routes were impacted more than the leisure routes. In their response, these airlines resorted to product positioning strategies by introducing products for non-business passengers and focusing more on pleasure market segments. This study focused on short-term market adaptation but lacked a theoretical framework to explain how these strategic shifts contribute to long-term resilience—a theoretical and interpretive gap this study seeks to fill using the Dynamic Capabilities View (DCV).

Locally, in contrast, Odhiambo (2016) found that Kenyan airlines adopted product positioning to maintain competitive advantage by increasing flight frequency, aircraft capacity and comfort. However, this study was limited to a descriptive design and did not empirically test the relationship between positioning and resilience, pointing to a methodological gap in linking strategy to outcome variables using robust inferential methods.

The airline industry also adopted the service positioning strategy in response to the pandemic. Arrigo, Beccarello, and Di Foggia (2023), through a multi-case study, highlighted network expansion and local market exploitation as key positioning responses and found that strategic positioning adopted by airlines focused on creating a wider network of long-haul routes and exploiting strengths in local markets. Unlike Santos et al (2021), they emphasized long-haul strategic alignment. However, the reliance on qualitative data limits the generalizability of their findings, revealing a methodological gap.

Loo et al. (2021) examined challenges and proposed recommendations to manage the sustainability of the airline industry in a pandemic employing a secondary research-based approach using data from international health and airline organizations. Peer-reviewed research on past pandemics severe acute respiratory syndrome (SARS), was used to formulate recommendations to manage sustainability. The study found that airlines adopted service positioning strategies where they placed more emphasis on passenger safety during the pandemic. Loo et al. (2021) identified pricing and safety positioning but used document analysis, which lacks empirical depth.

Other airlines adopted pricing positioning strategies to navigate the reduced revenue streams experienced during the pandemic. In Ukraine, Alieksieichenko (2020) research was on pricing for airline tickets during the pandemic for their most popular destinations. However, the methodology involved using secondary data from airlines, and the panel dataset was analyzed using pooled Ordinary Least Squares (OLS) regression. The findings indicated that pricing strategies that have been used during the last decade were ineffective during the pandemic.

On the other hand, Fan (2021) conducted an examination on the effectiveness of strategies of airline companies during the pandemic. Using content and document analysis, several response strategies based on the 4ps (product, price, placement, and promotion) were explored. The findings revealed that the positioning strategy was effective for the short-term, but airlines required them to match their price positioning strategy to the changing or evolving scenario of less pandemic severity. While Fan (2021) and Alieksieichenko (2020) explore pricing responses, their reliance on secondary data and general content analysis methods limits causal interpretation,

introducing an interpretive limitation. This study applies correlation and regression techniques, offering a more precise analysis of the impact of positioning on resilience.

Additionally, many of these studies use general strategic management theories without anchoring their analysis in frameworks specifically suited to turbulent or crisis environments. The absence of theories like the Dynamic Capabilities View (DCV), which explains how firms reconfigure capabilities in response to change, reveals a theoretical gap. While these studies provide insight into strategic responses, most fail to integrate frameworks like the Balanced Scorecard (BSC) or DCV, which could bridge the gap between operational actions and long-term strategic resilience—a conceptual omission addressed in this study. This study addresses this by using DCV to frame positioning as a dynamic adaptation mechanism, filling this void in the literature.

2.3.2 Cost Reduction Strategies and Organizational Resilience

There are different costs associated with cargo airlines as well as airline services, namely direct costs and indirect (overhead) costs. The direct costs are those associated with the airports, such as landing fees, pilot salaries, and fuel costs, as these are as a result of flights themselves. The indirect costs are those associated with the business entity (airline), including staff salaries and maintenance of fleets (Kariyawasam, 2019). Based on these classifications, this review on cost reduction is presented along these themes.

In the US, Gualini (2023) conducted a comparative study to understand airline strategies before and after the pandemic. The airline-level analysis revealed they adopted cost reduction strategies by airlines grounding aircraft and retiring older fleets. In Indonesia, Nair et al (2021) analyzed AirAsia's strategies during the pandemic using a literature review design. The strengths, weaknesses, opportunities, and threats (SWOT) were used to further analyze strategies implemented by AirAsia. The airline made cost management strategies that consisted of cutting costs, including negotiations with vendors and managing the cash flow. While these two studies provide operational insights, they are limited to case and literature reviews, lacking empirical validation and theoretical methodological and theoretical gaps that this study attempts to bridge. Meanwhile, Chao and Hsu (2014) offered a structured analysis by adopting multiple case studies from four air cargo routes and eight aircraft

types found that cost functions enabled the companies to select the type of aircraft with the most fuel efficiency for different cargo volumes and route distances. However, they did not explicitly link these decisions to organizational resilience or frame them within a strategic theory, revealing a conceptual gap.

In Austria, Hudáková (2021) investigated response strategies among airlines using a quantitative online empirical experiment. The study provides insights on how airlines participated in the retirement of ageing aircraft as well as introduced cost-efficient automation to streamline their operations. These measures go beyond mere cost-cutting as they directly support organizational resilience. By eliminating older, less efficient aircraft, airlines reduce maintenance risks and fuel inefficiencies, enhancing their ability to sustain operations during crises. The introduction of automation similarly strengthens resilience by minimizing operational disruptions and enabling continuity even when human resources are constrained. These strategic adjustments reflect an organization's capacity to adapt and reconfigure internal processes in response to external shocks, which is a core principle of the Dynamic Capabilities View (Teece, 2007).

Furthermore, as Duchek (2020) and Lengnick-Hall et al. (2011) suggest, organizations that proactively adjust their systems and assets in anticipation of or response to turbulence tend to be more resilient over time. Hudáková's findings thus reinforce the importance of integrating technological and operational innovations as part of broader resilience-building strategies. In Kenya, Mungai and Bula (2018) examined the effects of a cost reduction strategy anchored on the strategic turnaround theory, competitive forces theory, and RBV theories. A descriptive research design and data from 48 respondents revealed that the cost reduction strategy had a positive outcome on performance; these costs were reduced by renegotiating its ground handling costs and security contracts. However, the study was limited to descriptive statistical analysis and the lack of inferential analysis and integration with frameworks like BSC limits the study's predictive value.

Other studies have found response strategies that aim to reduce indirect (overhead) costs of airlines. These include Zahraee et al. (2023) research in China that examined airlines' responses during the pandemic using a questionnaire survey before and after flights 49 major airlines. The study revealed there was a reduction in operational costs

through wage cuts and layoffs. Albers and Rundshagen (2020) examined how the pandemic forced airline reactions via their crisis response strategies using news items reporting on the daily aviation industry. The sample consisted of 148 articles, which revealed that the retrenchment strategy summarized those measures aimed at making overhead cost reductions. Both studies acknowledge retrenchment as a crisis strategy, however, they primarily use secondary sources (e.g., news reports), limiting the reliability of their findings—a methodological limitation this study overcomes by collecting primary data from airline management personnel.

Demir, Aktas, and Paksoy (2021) research in Turkey focused on resilience strategies adopted during the pandemic using a qualitative research method that included interviews from five (5) experts and reviews from different publications on the pandemic. The airline mitigated the effects of COVID-19 by focusing on reducing costs through protective and exploitative techniques. Further, protective strategies included minimizing non-essential expenditures and safeguarding critical operational assets, while exploitative strategies focused on leveraging available opportunities to optimize efficiency. These approaches reflect an adaptive capacity that aligns with the concept of organizational resilience, which involves the ability to absorb shocks, adapt to changing conditions, and recover from adversity (Duchek, 2020). The study illustrates how cost-related decisions, when strategically aligned with long-term goals, can contribute to resilience by enabling airlines to remain operational despite severe constraints.

Furthermore, this aligns with the Dynamic Capabilities View (Teece, 2007), where the capacity to sense, seize, and reconfigure resources plays a key role in overcoming environmental volatility. Nyamoh (2022) analyzed the strategies that KQ adopted during the pandemic using the RBV and environmental dependency theories and employed a case study design. Using primary and secondary data gathered via face-to-face interviews and document analysis respectively. Using content and thematic analysis, the findings revealed that KQ reduced its workforce from over 4,300 to below 3,200 as a deliberate cost reduction strategy aimed at mitigating financial strain brought about by the collapse in global air travel. From an RBV perspective, this move illustrates how KQ sought to realign and reconfigure its internal resources to maintain competitive viability during a turbulent period. The reduction in payroll

expenses enabled the airline to conserve cash flow, maintain minimal operational functions, and ensure business continuity—key indicators of organizational resilience (Lengnick-Hall et al., 2011).

2.3.3 Diversification and Organizational Resilience

The literature shows that organizations can diversify their partnerships, collaborations, and cooperations during uncertainties. This was also reported among airlines, as Belhadi et al (2020) examined response strategies adopted by airlines by integrating qualitative and quantitative techniques. The airlines promoted cooperation to achieve business continuity. This evidence was also reported from Indonesia. Sari, Ramadhani, and Prameswari (2020) did a qualitative descriptive analysis using data from reputable international organizations. Their study found that partnerships, alliances, and expanded networks helped airlines maintain continuity. These two studies used qualitative and document-based approaches, which, while insightful, lacked direct empirical testing of how diversification influences resilience—a methodological gap.

In Turkey, Göv and Erbay (2021) conducted an online survey that evaluated the current situation of the airline sector, obtaining data from 27 academicians in aviation education. The content analysis revealed that airlines resorted to new partnerships. Similarly, Jaroenjitrkam, Kotcharin, and Maneenop (2023) employed a more rigorous regression model to assess M&A effects on firm survival across 87 global airlines. While statistically robust, their focus on financial indicators like stock performance overlooks internal organizational outcomes such as resilience—a conceptual limitation. This study addresses this by directly measuring organizational resilience as a dependent variable.

The transportation of unique products and services was also a response strategy adopted by cargo airlines during the pandemic. The evidence shows that shifting operations to the delivery of food and pharmaceutical products was welcomed. For example, Suk and Kim (2021) analyzed grey literature from reputable companies in the aviation and health industries at the onset of the pandemic and after. Thematic analysis revealed that major airline companies changed their decision-making around the pandemic and shifted focus from cargo transport to pharmaceutical and high-demand supplies.

Similarly, in Algeria, Bouali et al. (2020) study revealed that due to the exemption of the major restrictions, cargo airplanes were able to diversify into the delivery of food and pharmaceuticals. The addition of routes was also reported to be a strategy to respond to the uncertainties of the pandemic. However, these studies relied heavily on grey literature and lacked rigorous data validation. In other study, Chutiphongdech et al. (2023) used the documentary method of reviewing documents on strategic responses from past crises. Using content analysis, response strategies adopted by cargo airlines were found that diversification through new cargo routes contributes to resilience, but their content analysis did not quantify this effect. This study moves beyond this by applying the Dynamic Capabilities View to explain diversification as a proactive and strategic manoeuvre and testing its statistical impact on resilience using a multi-level management sample

2.4 Summary of Research Gaps

The reviewed literature on strategic positioning, cost reduction, and diversification strategies contributes to a deeper understanding of how cargo airlines globally, regionally, and locally have responded to crises, particularly during the COVID-19 pandemic. Positioning strategies literature highlights varied approaches such as route realignment and pricing models, though gaps remain in linking these strategies to measurable resilience outcomes, especially in developing economies. Cost reduction studies underscore the role of operational adjustments like workforce restructuring and asset optimization in supporting business continuity, yet most rely on descriptive designs without robust inferential analysis to validate resilience outcomes. Diversification literature shows how partnerships, market expansion, and service realignment have been used as crisis buffers, though empirical validation in African airline contexts remains limited. The current study addresses these theoretical, methodological, and contextual gaps by integrating the Dynamic Capabilities Theory, Porter's Generic Strategies, and the Balanced Scorecard framework to examine the resilience impact of crisis response strategies within Kenya's cargo airline sector, thus offering fresh insight into resilience-building in underrepresented contexts.

Table 2.1: Synthesis of research gaps

Gap Type	Identified in Literature	Addressed by This Study
Theoretical	Limited use of DCV, BSC, and Porter's strategy theory in airline	Integrates all three to provide a multi-dimensional framework

	crisis studies	
Conceptual	Weak linkages between strategies (especially cost & positioning) and resilience	Clearly defines and tests these links using resilience as a dependent construct
Methodological	Over-reliance on descriptive or qualitative studies; limited statistical testing	Applies correlation and regression to test relationships using primary data
Contextual	Lack of focus on African cargo airlines	Anchored in the Kenyan cargo airline industry
Interpretive	Narrow focus on short-term survival, limited long-term strategic resilience interpretation	Focuses on resilience as a dynamic, long-term organizational capability

Source (Author, 2025)

Table 2.2 illustrates the research gaps the study intends to fill. It shows the author and year of publication, title, methodology adopted, major findings, and gaps the study aims to fill.

Table 2.2: Literature Review Summary and Research Gaps

Author	Topic	Methodology	Findings	Study filling the gap
Chao & Hsu (2014)	Cost analysis of air cargo transport and effects of fluctuations in fuel price	A case analysis of secondary data	Cost functions can assist airlines in selecting the aircraft type with the best fuel economy	The study measures the influence of cost reduction strategies on the resilience of cargo airlines
Farhiya (2015)	Strategic Positioning as a Source of SCA at NRC, Dolo Ado- Ethiopia	A case study design	Product differentiation contributed positively to competitive advantage	Product positioning will be investigated in the air cargo industry
Odhiambo (2016)	Positioning Strategies and Competitive Advantage of Local Airlines in Kenya	Descriptive research design	Product positioning strategies had a positive effect on SCA	Product positioning will be investigated in the air cargo industry
Mungai & Bula (2018)	Turnaround Strategies and Performance of Kenya Airways.	Descriptive research design	Cost reduction strategy contributed to airline turnaround	This study examines cost reduction and resilience of different air cargo airlines
Albers & Rundshagen (2020)	European airlines′ strategic responses to the COVID-19 pandemic (January-May, 2020)	Content analysis	Retrenchment strategy included substantial cost/overhead and/or asset reductions	The study examines influence of cost reduction on resilience
Belhadi et al (2020)	Manufacturing and service supply chain resilience to the COVID-19 outbreak	The study adopted a comparative research design	Digital technologies and cooperation among stakeholders contributed to resilience of both industries	Cargo airline industry is the main focus of this study

Suk & Kim (2021)	COVID-19 and the airline industry: crisis management and resilience	Combination of qualitative and quantitative techniques	Promoting cooperation among supply chain stakeholders were important for resilience	This study examines network/partnership diversification on resilience
Sari et al. (2020)	Airline strategy during Covid-19 outbreak: A case study from Air Asia	Qualitative descriptive analysis	AirAsia strategy was adding services, expanding partners, and creating new routes	This study includes air cargo airlines and the outcome of strategies adopted during the pandemic
Göv & Erbay (2021)	The effects of Covid-19 pandemic on the aviation industry and strategies	Online qualitative survey	Airlines resulted in new partnerships and transforming fleets to ambulance plane services	This study examines network/partnership diversification on resilience
Yong & Laing (2021)	Stock market reaction to COVID-19: Evidence from U.S. Firms' International exposure	Secondary data analysis	Internationalization contributed to resilience among MNCs	The focus will be on the cargo airline industry alone
Demir et al. (2021)	Organizational flexibility of airlines during COVID-19	Qualitative research method	Airlines adopted cost reduction and saving strategies	Quantitative approach will be used to examine cost reduction and resilience
Nair et al. (2021)	Analysis of Strategies Implemented by AirAsia to Cater to the Covid-19 Effects	Literature review/desk design	Cost management strategies included negotiations with vendors and managing the cash flow	This study measures what cost strategies contributed to resilience
Serfontein & Govender	The relationship between resilience and	A cross-sectional survey	Middle seat blocking strategy reveals	A descriptive research design will be used

(2021)	organizational control systems in the South African aviation industry		revenue losses for airlines engaging in this strategy	
Musengi (2021)	The effect of business continuity planning on resilience of cargo Airlines in Kenya	Descriptive research design	There were positive and significant effects of the three business continuity factors on resilience.	Strategic positioning, cost optimization, and diversification as recovery strategies
Ebunwa (2022)	Organizational Responsiveness and Marketing Resilience of Domestic Airlines in Nigeria	Descriptive research design	Organizational responsiveness posted strong, association with marketing resilience	Organizational resilience is the dependent variable measured by different indicators.
Ansaharju & Sorvi (2023)	Assessing The Resilience of Airlines to Geopolitical Shocks – Case.	A case study of Finnair utilizing a qualitative study method	Scenario planning, organizational structure, business model adaptation and operational efforts improved resilience	Quantitative research using primary data could be used
Arrigo et al. (2023)	Strategic Response of European Airlines to Market Dynamics: A Comparative Analysis	Multiple-case study analysis	Strategic positioning, cost optimization, and diversification were the major strategies adopted by the airlines	The Kenyan market cargo airline sector is the focus of this study. Consideration of primary data after 2019 (Post Covid 19 era)
Gualini (2023)	Airline strategies during the pandemic: What worked?	Comparative study design	Cost reduction strategies included grounding aircraft, retiring older fleets, and laying off staff	This study measures what strategies contributed to resilience

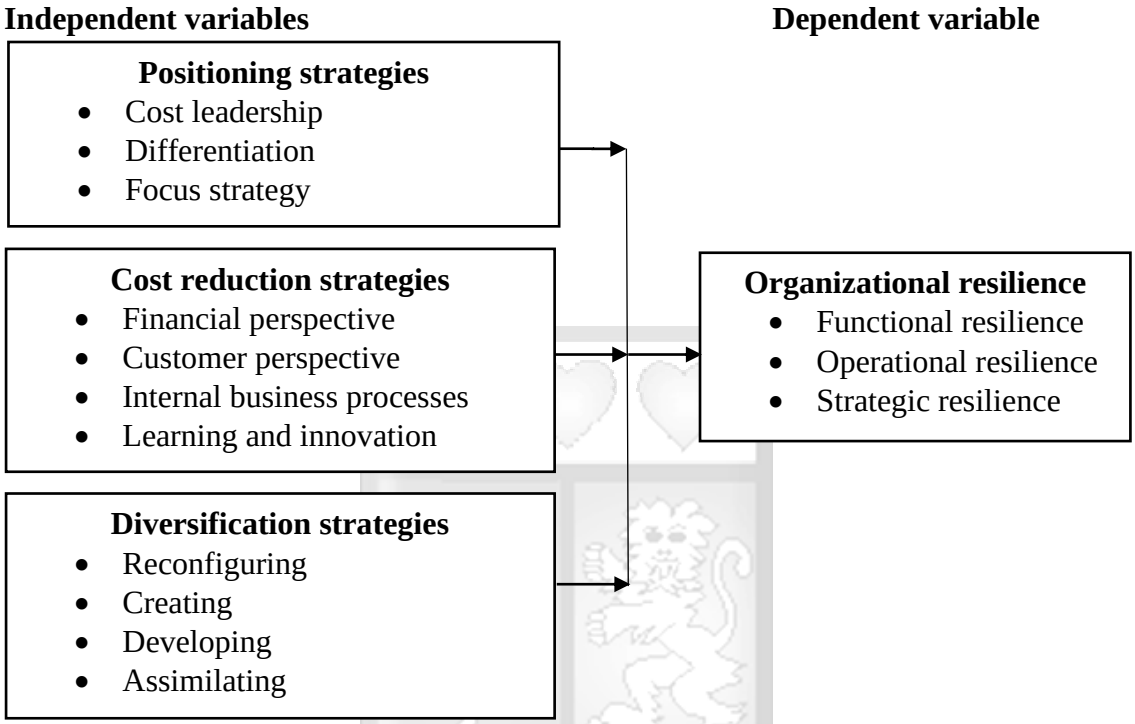
Zahraee et al. (2023)	A study on airlines' responses and customer satisfaction during the COVID-19 pandemic	Descriptive survey design	Cost reduction included layoffs, wage cuts, and early decommissioning of aircraft	This study measures what cost strategies contributed to resilience
Jaroenjitrkam et al. (2023)	Corporate resilience to the COVID-19 pandemic: Evidence from the airline industry	Secondary data analysis	M&As are a promising business strategy for survival	The Kenyan market cargo airline sector is the focus of this study
Chutiphongdech et al. (2023)	Strategic response of European airlines to market dynamics	Documentary method to review literature	Government support, technology adoption, and client collaboration businesses' strategic responses	Quantitative research using primary data will be used

Source: Researcher (2025)

2.5 Conceptual Framework

Figure 2.1 shows the conceptual framework developed from the reviewed literature highlighting each of the study variables and their indicators.

Figure 2.1: Conceptual framework



Source: Researcher (2025)

2.6 Operationalization of Variables

This study investigates the influence of three independent variables—strategic positioning strategies, cost reduction strategies, and diversification strategies—on the dependent variable, organizational resilience. The operational definitions were derived from existing scholarly literature and aligned with the study's theoretical framework, including the Dynamic Capabilities View (DCV), Porter's Generic Strategies, and the Balanced Scorecard (BSC).

Positioning strategy is understood as the realignment of services, routes, and pricing to maintain competitiveness during crises. It includes actions like route optimization and market re-segmentation (Santos et al., 2021; Odhiambo, 2016). Cost reduction strategies refer to efforts to lower both direct and indirect operational expenses, including staff downsizing, automation, and operational streamlining (Hudáková, 2021; Mungai & Bula, 2018; Zahraee et al., 2023). Diversification involves

expanding into new markets or services to manage risk and seize emerging opportunities, as seen in new route development and partnerships (Belhadi et al., 2020; Göv & Erbay, 2021; Jaroenjitrkam et al., 2023). Table 2.2 shows how each of the variables was measured, and this shows the variables, their sub-variables, their measurement and the source of these constructs.

Table 2.3: Operationalization of Variables

Variables	Sub-variables	Scale	Source
Positioning Strategies	Cost leadership Differentiation Focus strategy	Ordinal scale	Porter (1985)
Cost reduction strategies	Financial perspective Customer perspective Internal business processes Learning & innovation	Ordinal scale	Barney (1991)
Diversification strategies	Reconfiguring Creating Development Assimilating	Ordinal scale	Prayag et al. (2024)
Organizational resilience	Functional resilience Operational resilience Strategic resilience	Ordinal scale	Hepfer & Lawrence (2022)

Source: Researcher (2025)

2.7 Chapter Summary

This chapter reviewed existing literature on crisis response strategies, specifically strategic positioning, cost reduction, and diversification, and their relationship with organizational resilience in the airline industry. The review was structured to capture global, regional, and local perspectives, offering both empirical evidence and theoretical insights.

Studies on positioning strategies revealed that airlines adopted product, service, and pricing repositioning strategies during crises, particularly the COVID-19 pandemic, to sustain market presence and adjust to shifting customer demands. However, most research focused on passenger airlines and lacked emphasis on cargo-specific

dynamics, especially in developing economies. The review also noted a gap in linking positioning strategies directly to resilience outcomes using robust analytical models.

The literature on cost reduction strategies highlighted responses such as operational downsizing, fleet optimization, automation, and renegotiation of contracts to manage financial pressures during disruptions. While these strategies were widely reported, particularly in developed contexts, many studies were descriptive, with limited inferential analysis connecting these actions to long-term resilience outcomes.

Diversification strategies were found to be a major lever for resilience, with airlines expanding into new markets, forming strategic alliances, or shifting cargo toward high-demand goods like medical and food supplies. Yet, studies rarely integrated these insights with established theories or tested them in African settings. Methodologically, many relied on qualitative or secondary data without integrating comprehensive theoretical frameworks like the Dynamic Capabilities View or Balanced Scorecard. The empirical review was presented and summarized in Table 2.1, which identified the research gaps that this study aimed to fill. A conceptual framework and operationalization of variables were also developed from the review of empirical literature.

Overall, this chapter identifies key theoretical, conceptual, and methodological gaps—including the limited application of resilience theory in African cargo aviation contexts, underdeveloped conceptual linkages between strategy and resilience, and a lack of mixed-method or theory-driven empirical validation. This study seeks to fill these gaps by applying a robust theoretical foundation combining Porter's Generic Strategies, the Balanced Scorecard, and the Dynamic Capabilities View, using quantitative analysis to examine how each strategy influences the resilience of Kenyan cargo airlines.

CHAPTER THREE:
RESEARCH METHODOLOGY

3.1 Introduction

This chapter defines the methods used to achieve the study objectives that were to establish the influence of positioning strategies on organizational resilience among cargo airlines in Kenya; establish the influence of cost reduction strategies on organizational resilience among cargo airlines in Kenya; and establish the influence of diversification strategies on organizational resilience among cargo airlines in Kenya. These methods are presented under the research philosophy, research design, population and sampling, data collection, data analysis, research quality, and ethical considerations. The following section presents research philosophy.

3.2 Research Philosophy

According to Dieronitou (2014), positivism, critical theory, and interpretivism are the major research philosophies for student research. First, positivism relies on the natural science model and emphasizes direct observations and disregards values, informed opinion, moral judgments and beliefs. Second, interpretivism are methods that focus on the meaningful nature of an individual's character and involvement in both cultural and social life. It consists of methods that believe knowledge is based on the social construction of an individual. Third, critical theory is emphasized for historical approaches in comparison with the other two paradigms that are defined by continuous phenomenon (Dieronitou, 2014).

In any of the research philosophies a researcher adopts, there is a need to identify and limit their research within a specific worldview of knowledge and reality. The main worldviews in research are ontology and epistemology. Ontology explains what we can find out about the world, and epistemology refers to how we can know about it; this can be objective or constructivist (Kant, 2014). Objectivism refers to gaining awareness of the world by remaining independent of the researcher's reality, while constructionism believes that social entities should be perceived as social constructions based on actions and beliefs of the participants. Epistemology refers to how knowledge is attained by experience or reason (Chowdhury, 2014).

This study adopts the positivist research philosophy, which aligns with the study's objectives of examining crisis response strategies and organizational resilience within

the cargo airline sector in Kenya. Positivism is grounded in the belief that reality is objective and can be observed, measured, and analyzed scientifically. It emphasizes quantitative data collection, hypothesis testing, and statistical analysis to uncover generalizable patterns and relationships among variables (Saunders et al., 2019).

The use of positivism is supported by several studies in similar contexts. Santos et al. (2021), for example, used a regression analysis within a positivist framework to investigate the role of strategic positioning during the COVID-19 pandemic in Brazil, examining its impact on airline performance. This is directly relevant to this study's focus on positioning strategies within the Kenyan cargo airline industry. Similarly, Mungai and Bula (2018) employed a positivist approach to assess the effects of cost reduction strategies on airline performance in Kenya. Their findings underscore the importance of cost management during crises, aligning with the objectives of this study in evaluating how cost reduction influences resilience. Nyamoh (2022), who analyzed Kenya Airways' response strategies during the pandemic, also utilized a positivist approach, using data from interviews and secondary sources to examine how the airline adapted during the crisis. These studies demonstrate the success of using a positivist philosophy to understand organizational resilience, making it an appropriate choice for this research.

Since this study is focused on evaluating the impact of specific strategies (e.g., positioning, cost reduction, and diversification) on organizational resilience, the positivist approach offers the advantage of using objective measurements to test predefined hypotheses. This approach ensures a structured, measurable, and objective analysis, aligning with the study's goals of testing established theories and producing reliable, generalizable findings. The adoption of a positivist philosophy enhances the rigor of the study and supports the generation of empirical evidence that can inform both theory and practice in the context of crisis management and organizational resilience.

3.3 Research Design

This study adopted descriptive cross-correlational research design. Descriptive research is research based on affairs as they are at present with the researcher having no control over variable an characterized by the attempt to determine, describe or

identify what is (Manjunatha, 2019). The data was collected once and analyzed implying the cross-sectional survey approach

The choice of this design was supported by previous studies such as Mungai and Bula (2018), who used a similar approach to explore strategic cost reduction and performance outcomes among Kenyan airlines. Santos et al. (2021) also adopted a correlational design using regression methods to assess how Brazilian airlines adjusted their market positioning in response to pandemic-induced shocks. These precedents show that correlational design is suitable for capturing strategic responses and organizational outcomes in the aviation sector during crises.

The research followed a deductive reasoning approach, where the study began with the formulation of hypotheses derived from established theories, namely Porter's Generic Strategies, the Balanced Scorecard, and the Dynamic Capabilities View. These frameworks guided the conceptualization of the study and informed the development of the research instruments and data analysis procedures. Further research used a cross-sectional survey where data was collected from February through March and analyzed in April 2024.

3.4 Target Population

The units of analysis are the 25 companies in the air cargo (**Appendix 1**) airlines industry as summarized in Table 3.1. The data was captured from surveying senior staff from both management and operational departments in each of these companies where they were targeted.

Table 3.1: Target population

Category	Number
1 Cargo Carriers	14
2 Cargo Belly Carriers	4
3 Hub Airlines	7
Total	**25**

Source: Kenya Airports Authority Website

3.5 Sampling Techniques and Sample Size

A census of all companies (units of analysis) was employed for the units of analysis, comprising all 25 cargo airline companies operating in Kenya. This was appropriate given the manageable population size and the need for comprehensive industry

insights. Thereafter, purposive sampling was used to select three (3) managers in each company, where a top manager, middle manager, and low-level manager were recruited, making for a sample size of 75 participants as shown in Table 3.2. The rationale for purposive sampling was grounded in the assumption that individuals occupying managerial roles possess both the strategic insight and operational experience necessary to provide reliable responses regarding the firm's crisis response strategies and resilience capabilities, ensuring that the data collected would be both contextually relevant and practically grounded.

The decision to target top-level and mid-level managers is as these are the employees deemed to have relevant information on the strategies employed by the organizations. This approach is supported by prior studies that have relied on similar respondent profiles to investigate strategic and organizational outcomes. For example, Wu et al. (2019) studied the influence of top management team diversity on firm performance, highlighting the critical role these actors play in steering strategic direction. Similarly, Januszek, Netland, and Furlan (2024) emphasized the need to examine managerial behavior across different levels to understand the implementation of organizational practices such as lean management. Hsu and Chang (2021) also relied on responses from top managers to explore firm strategy from a resource-based perspective. Furthermore, Faherty (2021) demonstrated that managers are best positioned to reflect on leadership dynamics and strategic responses in times of uncertainty. These precedents reinforce the appropriateness of selecting managerial staff as respondents in studies focused on strategy and organizational resilience.

Table 3.2: Sample size distribution

Category	Sample size
1 Top management	25
2 Middle management	25
3 Low-level management	25
Total	**75**

Source (Author, 2025)

3.6 Data Collection

The data collection was carried out by administering a structured questionnaire designed by the researcher. The questionnaire was preferred as the study intended to collect standardized information from respondents that would be able to be analysed

statistically. The tool consisted of five sections: background information, strategic positioning, cost reduction strategies, diversification strategies, and organizational resilience. The demographic information asked participants about their management level in their company, experience in years in the industry, firm age, firm size, and geographical focus of the company. The other sections focused on gathering variable information, and these were based on Likert-type questions in which respondents were required to indicate their level of agreement on a five-point scale. These sections consisted of strategic positioning strategies (9 items), cost reduction strategies (12 items), diversification strategies (9 items), and organizational resilience (9 items). To allow for convenient and cost-effective collection of data, the survey was administered using Google Forms after acquiring contact information of management-level staff from the cargo airline subsector. This was possible by presenting documentation authorizing the research to personnel managers in each of the firms.

3.7 Data Analysis

The data analysis followed three steps: data organization, data summarization, and inferential analysis and interpretation. Before data analysis was done, preliminary steps for conditioning the data were carried out. This included checking data for missing responses. Confirming no missing responses in the data, the Excel file was transferred to the statistical package for the Social Sciences (SPSS) to commence the analysis. The first phase of analysis consisted of performing descriptive statistics to present the data in a simple format to show patterns and trends in responses. This included using frequency and count distributions for general information data, while mean (measure of central tendency) and standard deviation (measure of dispersion) were used to summarize data from the Likert scale.

A composite score for each variable scale was computed to perform inferential statistical analysis. First, Pearson (*r*) correlation coefficient analysis was done to determine the strength of association between variables at the 95% confidence level. Multiple linear regression analysis was undertaken to determine the effect of the three independent variables on the dependent variable (organizational resilience) at the 95 % confidence level. will be conducted. The data was presented in tables, and the implications of these findings were given. The proposed regression model was;

$$Y = \beta_0 + \beta_1 X1 + \beta_2 X_2 + \beta_3 X_3$$

Where:

β = Coefficients

Y = Organizational resilience

X_1 = Positioning strategies

X_2 = Cost reduction strategies

X_3 = Diversification strategies

3.7 Research Quality

The research quality of this research was determined by making sure that the tool met validity and reliability concerns.

3.7.1 Validity

The validity of the questionnaire was assessed subjectively for its content and construct validity. Construct validity was established by using existing theories to measure the study variables and the attributes being measured. Content validity was determined by adapting constructs and items used in previous studies and incorporating them into the survey tool (EL Hajjar, 2018). For example, items and statements on functional, operational, and strategic alliances were adapted from Hepfer and Lawrence (2022) where the word "pandemic" was included in the items, which did not specify any crisis when developed by the creators.

Items measuring cost reduction strategies, items adapted from Mungai and Bula (2018), were contextualized by replacing general operational costs with more specific cost dimensions like "fleet costs," "fleet retirement," and "staff rationalization," which were identified as relevant strategies during the pandemic (Hudáková, 2021). For diversification strategies, measurement items originally focused on service industry diversification were refined to reflect airline-specific responses, such as "launching pharmaceutical cargo operations" and "expanding cargo routes to underserved regions," as noted in Suk and Kim (2021). These adapted items were carefully reviewed for clarity, industry relevance, and alignment with the study objectives.

3.7.2 Reliability

The degree to which an instrument is void of measurement errors and reflects its consistency and replicability over time is referred to as reliability (Fraenkel & Wallen, 2009). Out of the different techniques for establishing reliability, the Internal

Consistency Reliability (ICR) test was used to determine how well the items used in each scale were related to other items in that scale.

3.7.3 Pilot Study

The pilot was conducted with 11 participants, who were purposively selected from among the 75 targeted respondents within the study's sample frame, and this data was tested for reliability using the Cronbach's alpha (α)value. Several researchers (Taber, 2018; Tavakol & Dennick, 2011) recommend Cronbach's Alpha values above 0.7 as acceptable and those higher are better for reliability. In this study, the threshold was 0.7, and after the initial test, only organizational resilience had a score less than 0.7 (α = 0.615). Therefore, further tests were done, and after deleting item 2, the value was acceptable at 0.733 as shown in Table 3.3 confirming that the variables meet the acceptable threshold and demonstrate that the instrument was both valid and reliable for full-scale data collection.

Table 3.3: Reliability Statistics

Variables	Cronbach's Alpha	N of Items	Overall reliability
Positioning Strategies	0.753	9	0.733
Cost reduction strategies	0.739	12	
Diversification strategies	0.827	12	
Organizational Resilience	0.615	9	

Source (Author, 2025)

3.8 Ethical Considerations

Ethical approval was obtained from Strathmore University Institutional Ethics Review Committee (SU-IERC). Thereafter, a research permit was obtained from the National Commission for Science, Technology, and Innovation (NACOSTI). In guaranteeing protection of participants, the researcher ensured their anonymity and confidentiality of the information shared by not asking for personal identifying information and keeping the data safe by using a password to protect it. Google Forms utilizes SSL encryption to secure data transmission between devices and Google's servers, preventing unauthorized access. The voluntary nature of participation in the study was also guaranteed through informed consent in the questionnaire. The form outlined the purpose and objectives of the study while outlining the zero risk of harm to respondents in their participation in this survey. This approach aligns with established standards in online surveys, as seen in studies by Williams and Thompson (2020),

who also utilized online tools while maintaining strict confidentiality protocols to ensure participant data was protected.

Additionally, participants' right to withdraw was communicated clearly, emphasizing that participation was voluntary. This was consistent with ethical guidelines promoted by researchers like Johnson et al. (2018) and Kamau, (2019), Ackrén, (2024) Ansaharju & Sorvi, (2023), who also emphasized the importance of voluntary participation and non-coercion in survey-based research. Furthermore, no incentives were offered, ensuring that participation was not influenced by external pressures, aligning with ethical norms observed in other academic research (e.g., Anderson & Ward, 2021). Overall, the ethical framework adopted in this study reflects best practices in online research, ensuring that participant rights were safeguarded throughout the data collection process.

3.9 Chapter Summary

This chapter thoroughly outlines the methodological approach used for this study. for the study.

The research design adopted a quantitative approach to provide a thorough understanding of the complex dynamics within the cargo airline sector. Through structured survey, specifically google forms, and purposive sampling, the research aimed to capture insights from key decision-makers, specifically top, middle, and low-level managers, ensuring a diverse range of perspectives on strategic decisions. The chapter emphasizes the importance of validating the research instrument, with a pilot test conducted to ensure reliability and also discusses the eithicl considerations highlights the ethical The combination of these strategiesnot only ensured the credibility of the findings but also set the stage for the analysis and interpretation of the data, ultimately contributing to a deeper understanding of how cargo airlines navigate challenges and build resilience through strategic management.

CHAPTER FOUR:
RESEARCH FINDINGS AND ANALYSIS

4.1 Introduction

This chapter presents its research findings from highlighting its response rate and general information of respondents and their respective companies. The variable information is summarized in mean and standard deviation values followed by a correlation coefficient between variables, and regression analysis.

4.2 Response rate

The study was able to attain 70 complete surveys out of the 75 administered and this represented a response rate of 93.3% as shown in Table 4.1. The 5 non-returned questionnaires are attributed to respondents' busy schedules and lack of motivation to complete the survey, all of which are common potential reasons in survey-based research. The participants in this study were managers in a highly dynamic and often time-sensitive industry, meaning their daily schedules could have interfered with their ability to dedicate time to filling out the questionnaire. Despite these challenges, a response rate of 93.3% is considered excellent, especially in a specialized and high-stakes industry like cargo airlines, reinforcing the credibility of the data collected. This rate significantly exceeding Mugenda and Mugenda's (2019) recommendation of a minimum of 50% response rate for survey. A similar study by Denscombe (2010) in the public and private sectors also highlighted that response rates above 70% typically result in data that is both exhaustive and reliable. Achieving a high response rate enhances the credibility and reliability of the study's findings, as it suggests that the sample is highly representative of the population. Additionally, a higher response rate reduces the potential for non-response bias, making the results more generalizable and robust for analysis. As the respondents were selected purposefully based on their direct involvement in strategic decision-making within cargo airlines, this lent further credibility to the data. Additionally, as noted by Babbie (2010) and Saunders et al. (2019), when respondents are selected based on expertise or experience in the relevant field, their insights contribute to the richness and depth of the data.

Table 4.1: Study response and non-response

Categories	Number	Per cent
Questionnaires administered	75	100.0

Questionnaires returned	70	93.3
Questionnaires not returned	5	6.7

Source (Author, 2025)

4.3 Respondent Profile

Table 4.2 shows there were more low-level management staff represented in the sample size as they accounted for 40.0% of the sample. Top management staff represented 25.7% of the sample while middle management staff accounted for 48.6% of the sample. Top leaderships were difficult to reach for the study, and this group represented the smallest part with 11.4%. Being that most respondents were operational managers provides more credibility to the findings as this group of managers is involved in the day-to-day activities of airline cargo companies and thus had first-hand experience in the implementation of the strategies under investigation. Moreover, middle-level managers were relatively well represented in the sample, and those who play crucial roles in translating organizational strategic goals into actionable plans, facilitators, and champions were fairly represented in the sample.

Table 4.2: Management level distribution among staff

Management Level	**Frequency (n=70)**	**Per Cent**
Top Management Staff	**8**	**11.4**
Middle Management Staff	**34**	**25.7**
Low- level Management Staff	**28**	**40.0**
Total	**70**	**100.0**

Source (Author, 2025)

A larger part of the sample had been in the current organization for less than five years. Those with six to ten years represented 28.6% of respondents, signifying the growing sector with the entry of new companies and high competition for human capital in the subsector. Those staff with six to ten years of experience in the current organization represented 28.6%, and those with over 16 years accounted for 18.6%. Those with eleven to fifteen years were represented by 12.9% of respondents. In total, these three groups with more than six years of experience in the sector accounted for most of the sample (60.1%), thereby enhancing the credibility of their responses given their experience in the sector. This is shown in Table 4.3

Table 4.3: Respondents work experience in airline cargo sector

Work experience in an organization	Frequency	Per cent
Less than five years	28	40.0
6-10 years	20	28.6
11-15 years	9	12.9
Over 16 years	13	18.6
Total	**70**	**100.0**

Source (Author, 2025)

Table 4.4 shows most respondents were from companies that had 15-20 years of experience, and this implies that these companies were more than likely to have experienced prior crises and were therefore better placed to provide accurate information on the response strategies of their companies during the pandemic. In terms of their size, most companies (71.4%) had more than 250 employees, with 18.6% and 10.0% having 51-249 and 1-50 employees, respectively. This finding may influence the type of strategy adopted by companies, as larger companies may have more operational costs and thus may prefer to utilize cost-cutting measures to manage their revenue.

Table 4.4: Firm age of airline cargo companies

Firm age	Frequency	Percent
Less than 5 years	8	11.4
5-10 years	8	11.4
10-15 years	6	8.6
15-20 years	48	68.6
Total	**70**	**100.0**

Source (Author, 2025)

In terms of their size, the findings show majority of the firms had more than 250 employees representing 71.4% followed by those who had 51-249 employees that represented 18.6% of the sample with 10.0% having 1-50 employees as presented in Table 4.5.

Table 4.5: Firm size of airline cargo companies

Firm size	Frequency	Per cent
1-50 employees	7	10.0
51-249 employees	13	18.6

250 employees and above	50	71.4
Total	**70**	**100.0**

Source (Author, 2025)

More companies had both domestic and international routes, and these represented 52.9%, while those limited to domestic and international routes represented 20.0% and 27.1%, respectively. This implies that the pandemic affected those with international and both routes (80.0%) and therefore were compelled to adopt all or either of the three selected response strategies under investigation as summarized in Table 4.6

Table 4.6: Geographic focus of airline cargo companies

Geographic focus	Frequency	Per cent
Domestic	14	20.0
International	19	27.1
Both	37	52.9
Total	**70**	**100.0**

Source (Author, 2025)

4.4 Descriptive analysis

This subsection of the chapter summarizes the Likert scale data for each of the variables, and this was limited to the mean and standard deviation scores.

4.4.1 Positioning strategies

According to Salman (2023), everyday life is influenced by activities of the cargo airline industry as it is the preferred means by which to send and receive expensive, temperature-controlled, and perishable goods over long distances. Thus, cargo airline benefits greatly from a system of streamlined distribution (Salman, 2023). The findings show the respondents agreed that the organization had streamlined its operations to provide lower prices, as indicated by a 4.03 mean score. This is in line with Xu et al.'s (2023) research that showed that airline companies were streamlining procedures and collaborating around common standards in an effort for all parties to significantly improve the robustness and efficiency of the air cargo supply chain.

In response to the pandemic, airline companies resorted to switching their pricing to remain resilient during the lockdown. There was moderate agreement on the item that the organization had introduced new pricing options for specific market segments, as shown by a mean value of 3.70. These findings are in line with those of Alieksieichenko (2020) in Ukraine, who found that airline companies had to switch their pricing models to attract more clients during the pandemic. Similarly, Vinod's (2022) research recommended that airline cargo companies incorporate airline pricing to promote and enhance their revenue planning.

The mean score of 3.70 indicates that respondents were in moderate agreement that their organization had adopted specific delivery of products from its conventional cargo to fulfil demand during the pandemic. This trend was common for cargo companies around the world. For example, in Brazil, Santos et al. (2021) revealed that airlines resorted to product positioning strategies by introducing products for non-business passengers and focusing more on pleasure market segments. In China, the transportation of unique products and services was also a response strategy adopted by cargo airlines during the pandemic. The evidence shows that shifting operations to the delivery of food and pharmaceutical products was common (Suk & Kim, 2021).

There was moderate agreement among respondents that the organization introduced new routes and services to specific market segments during the pandemic as indicated by a 3.66 mean value. Bouali et al. (2020) provided evidence from Algeria revealed that addition of routes was a strategy that airline companies used to respond to the uncertainties of the pandemic. Chutiphongdech et al. (2023) content analysis did provide evidence that response strategies adopted by cargo airlines included starting new cargo routes, while Gualini et al. (2023) showed that airline cargo companies in the US resorted to diversification into new routes.

The respondents were in moderate agreement that their organization adopted new packages and services for their non-traditional market segments as indicated by a 3.64 mean score. Suk and Kim (2021) found that reputable companies in the health and aviation industries shifted their operations into the transportation of unique products and services during the pandemic. In Indonesia, AirAsia top leadership carefully identified the openings to extend its distribution network beyond global and regional

transportation but to also introduce services such as airline rental services to move medical goods and personnel (Sari et al., 2020).

There was moderate agreement among respondents that the organizations consolidated some of their international routes to domestic hubs to exploit the local market demand during the pandemic shown by a mean value of 3.53. According to Zhu et al. (2020), distribution costs are reduced by consolidation and cargo damage is also lessened and this allows air cargo companies to reduce their administrative and maintenance costs.

Table 4.7: Positioning strategies summary statistics

Items	Mean	Std. Deviation
The organization streamlined its operations in supply chain management and logistics to provide lower prices for its customers during the pandemic	4.03	0.834
The organization secured materials from low-cost suppliers to offer lower prices to its clients during the pandemic	3.67	1.164
The organization made significant efforts to standardize products or services that minimized variations and reduced costs	3.54	1.451
The organization adopted a specific delivery of products from its traditional cargo to exploit demand during the pandemic	3.70	1.397
The organization introduced new pricing options for specific market segments during the pandemic	3.70	1.255
The organization provided exceptional service to enhance the overall customer experience, including personalized services during the pandemic	3.17	1.340
The organization adopted new packages and services for their non-traditional market segments	3.64	1.263
The organization introduced new routes and services to specific market segments during the pandemic	3.66	1.350
The organization consolidated some of its international	3.53	1.113

routes to domestic hubs so as to exploit the local market demand during the pandemic		
Overall mean score	**3.63**	**1.241**

Source (Author, 2025)

4.4.2 Cost Reduction

In an effort to reduce their costs during onset of the pandemic, most airlines preferred to retire old aircrafts, reduce number of cargo fleets, and stopped serving some of their long-haul destinations (Gössling, 2020). There was moderate agreement that the organizations in Kenya retired some of their fleet to reduce their overhead costs, as indicated by a 3.80 mean score. In the case of Finnair, Ackrén (2024) was able to show evidence that the company improved its financial position by using techniques that increased their cash flow while lowering its costs and this was mainly by retirement of old aircraft models.

The results further revealed that organizations retired some of their fleets to reduce associated costs of maintenance to a moderate extent, as shown by a mean score of 3.43. In Austria, Hudáková (2021) found that airlines participated in the retirement of old aircrafts as well as introduced cost-efficient models by adopting automation of their operations, while in the US, Gualini (2023) found companies adopted cost reduction strategies by retiring older fleets.

There was moderate agreement among respondents that the organization promoted and supported innovativeness during the pandemic which could reduce its overall costs, as a mean value of 3.76 was observed. In their research in Kenya, Musengi (2021) found that promoting an innovation culture contributed to the resilience of airline companies, and this was not specific to the airline cargo subsector. Albers and Rundshagen's (2021) found that airline organizations in Europe used innovative strategies simultaneously or sequentially to respond to the crisis while other organizations aimed to take advantage of the urgent need to send medical supplies as an opportunity for their business to continue and therefore attain resilience.

The airline industry faces a unique set of challenges, characterized by high operational costs, fluctuating demand, and external shocks such as economic downturns and global pandemics (Olawoyin, 2024). The sampled organizations were

found to have reduced their budget allocation towards training and development to lessen their costs to a moderate extent, as shown by a mean value of 3.51. In Turkey, Özbek and Araci (2025) provide such evidence explaining that airline companies have to meet their expenses including leasing costs, personnel costs, and maintenance costs when not operating as usual. During such periods, most airlines reduced costs by practicing employee layoffs. This means such efforts as employee training and development took a backseat to save costs during the pandemic, and this heightened ability of companies to remain afloat and resilient.

Table 4.8: Cost reduction strategies summary statistics

Items	Mean	Std. Deviation
The organization retired some of its fleets to reduce associated costs of maintenance	3.43	1.584
The organization took measures to reduce costs associated with its staff/employees during the pandemic	3.86	1.277
The organization adopted cost efficient methods including automation to reduce its overhead costs	3.07	1.289
There was a reduced budgetary allocation towards the marketing activities during the pandemic	3.86	1.243
The organization narrowed its focus to its core and niche market to reduce costs associated with expanding its market share	3.67	1.126
The organization reduced its expenses on customer loyalty programs to reduce its overall costs	3.76	1.233
The organization adopted more efficient and effective use of its spaces in an effort to reduce its overall costs	3.76	1.028
The organization outsourced some of its operations in an effort to lessen its maintenance costs	2.23	1.206
The organization retired some of its fleet in an effort to reduce its overhead costs	3.80	1.336
The organization reduced its budget allocation towards training and development to lessen its costs	3.51	1.236
The organization promoted and supported	3.76	1.334

innovativeness during the pandemic that could reduce its overall costs		
The organization adapted its system to capture and share knowledge in an aim to reduce its costs for future disruptions	3.57	1.246
Overall mean score	**3.52**	**1.262**

Source (Author, 2025)

The respondents were in moderation that the organization adopted cost-efficient methods, including automation, to reduce its costs, as shown by a mean score of 3.07. For instance, Hudáková's (2021) results in Austria indicated airlines participated in the retirement of old aircraft as well as introduced cost-efficient models by adopting automation of their operations. Using their findings, Xu et al. (2023) recommended that airports need to invest in advanced technologies, such as automation and digitization, to improve the speed and accuracy of cargo handling. Dufay et al. (2023) findings highlighted acceleration in automation as one of the strategies that were implemented by companies to survive the COVID-19 pandemic.

There was disagreement among respondents that the organization outsourced some of its operations to lessen its maintenance costs as shown by a mean score of 2.23. This shows that some companies were not outsourcing their services to remain resilient in times of crisis and this has also been supported in other countries. In Indonesia for example, Rayinah and Chalid (2020) did an evaluation of the Garuda air cargo model and found that not integrating its services and its concentration of controlling air cargo terminal services did not do much for its profits showing the company was better off outsourcing.

4.4.3 Diversification Strategies

Table 4.5 shows that the respondents were in moderate agreement; the organization was actively engaged in building stronger links to the government during the pandemic, as a mean value of 3.96 was observed. Chutiphongdech et al. (2023) established that government support and collaborations were airline businesses' strategic responses to the pandemic. Knowledge management is the deliberate and systematic technique to ensure that an organization can fully use their innovation, experience, skills, knowledge base, and competencies to create an efficient and

effective organization. There was moderate agreement among respondents that the organization deployed its existing knowledge management to tap into new market segments, as a mean score of 3.79 reported. This finding agrees with Sede et al. (2023) as those companies utilizing knowledge will provide a benefit to the resilience of the company when it uses its readily accessible knowledge to improve its customer service and be effective in managing different types and sources of existing knowledge while new knowledge is used to go beyond hindrances to their resilience.

Diversification of air freight is not new and was common before the pandemic. for example, the benefits of diversification into integrated and express freight transportation are from the experience of Lufthansa, Air China, Singapore Airlines, Emirates, Air France–KLM, and Finnair, which now have successful airfreight subsidiaries (Lufthansa Cargo, Air China Cargo, Singapore Airlines Cargo, Emirates SkyCargo, Martinair Holland N. V., and Finnair Cargo), which operate specialized cargo planes (Gyazova & Siluyanova, 2022). The respondents showed moderate agreement that the organization was able to modify target markets by diversification into new routes and cultures, as indicated by a mean score of 3.77. The finding is supported by empirical evidence from the case of the Emirates and Qatar Airways as they both showed significant growth in their value of CTK showing evidence of the benefits of extending operations and increasing market presence during the pandemic was successful (Inan, 2024).

In response to pandemic challenges, the service industry increasingly recognized the importance of strategic internal communication as a tool for fostering organizational resilience (Oloba et al., 2024). The reported mean value of 3.74 indicates respondents were in moderate agreement with the organization adopting changes to its communication channels during the pandemic. In the EU, Chmielewska-Muciek et al. (2021) research found that airlines relied on diminishing and bolstering techniques for crisis response to the pandemic with their shareholders. In Nigeria, Ebenuwa (2022) observed that airline companies used communication as a service recovery strategy had a positive effect on airline resilience. This evidence supports the finding of a mean value of 3.63 showing respondents moderate agreement the organization was actively engaged in building relationships with the wider community during the pandemic.

Odonkor et al. (2024) explains that effective relationship management and stakeholder engagement can strengthen resilience in enterprises by developing strong relationships with customers, employees, suppliers, and this begins with understanding and addressing the needs and expectations of key stakeholders. The respondents were in moderate agreement the organization was actively engaged in building relationships within the cargo airline sector during the pandemic as shown by a mean value of 3.71. Kim (2021) provided empirical evidence for how resilience-oriented crisis communication can be achieved through strategic internal and external communication and relationship building with employees and stakeholders.

Table 4.9: Diversification strategies summary statistics

Items	Mean	Std. Deviation
The organization adopted changes to its communication channels during the pandemic	3.74	1.059
The organization reconfigured its advertising and messaging content to attract new market segments	3.50	1.305
The organization deployed its existing knowledge management to tap into new market segments	3.79	1.020
The organization was able to generate new knowledge outside the firm through the recombination of the firm's own and partners' knowledge	3.37	1.299
The organization was able to modify target markets by diversification into new routes and cultures	3.77	1.038
The organization was able to modify its target markets by promoting a culture of experimentation and innovation	3.37	1.241
The organization was actively engaged in building relationships within the cargo airline sector during the pandemic	3.71	1.298
The organization was actively engaged in building stronger linkages to the government during the pandemic	3.96	1.377
The organization was actively engaged in building relationships with the wider community during the pandemic	3.63	1.265

The organization was involved in external exploration for new knowledge to be absorbed into the company	3.59	1.324
The organization had processes in place to analyze, interpret and understand external information	3.57	1.149
Overall mean score	**3.64**	**1.216**

Source (Author, 2025)

According to Halaby et al. (2023), the effective marketing strategies that consider the "what," "who," and "how" dichotomies and the efficient use of social media to promote the adoption and diffusion of products and services can significantly enhance the resilience of organizations. The findings indicated a mean value of 3.50, that indicates the organization reconfigured its advertising and messaging content to attract new market segments to a moderate level. In their research, He et al. (2023) found that airline firms were able to fulfil the demands of their customers more easily and increase the satisfaction of their customers. On the other hand, thanks to digital marketing, more consumers are reached than with traditional marketing. This means that taking the opportunity of digital platforms to market their services allowed airline cargo companies to reach new markets.

The capability of being creative is an ideal component of resilience and assists in improving the capacity of organizations to remain resilient in uncertain periods (Aparna & Sahney, 2022). This creativity is motivated by passion, and it instils positive emotions which then allow employees to better handle uncertain times by utilizing their inner resources (Aparna & Sahney, 2022). The observed mean value of 3.37 indicates respondents moderately agreed the organization was able to modify its target markets by promoting a culture of experimentation and innovation. The finding suggests that organizations that provided employees with the chance of being innovative, and creative were better able to be resilient during the pandemic. those organizations that provided an environment of creativity allowed employees to become innovative in realizing the potential of their internal resources despite dwindling organizational resources (Aparna & Sahney, 2022).

4.4.4 Organizational Resilience

Table 4.6 shows that respondents agreed that the organization's top management identified and interpreted adversities facing the company during the pandemic, as

shown by a mean score of 4.17. This implies that top management was in continuous communication with internal and external stakeholders on the ongoing during the pandemic. The respondents were moderately in agreement that the organization was able to be innovative and coordinated in response to adversity faced during the pandemic, with a reported mean value of 3.90. The innovation of an organization means that it can find internal resources with which to better handle the ramifications of the pandemic.

The mean value of 3.86 indicates moderate agreement of respondents with the statement that the organization's members possess a collective meaning and understanding of disruptive events and situations. This suggests there was a common understanding of the impact of the pandemic, which was beyond the control of the management. The pandemic was global and not company-specific, and this contributed to sharing the challenges that this period presented to the aviation sector. The mean value of 3.81 shows respondents agreed to a moderate level that the organization was able to be flexible in its response to adversities faced during the onset of the pandemic. The ability to be flexible allowed air cargo companies to resort to other services to meet the human restrictions enforced during the pandemic, thereby contributing to their profitability during the crisis.

The mean value of 3.77 indicated respondents' moderate level of agreement that the organizations were capable of accurately sensing and recognizing useful resources available from their external partners. The air cargo companies realized the opportunity to focus on providing domestic services to remain operational, and this contributed to their resilience. The respondents were in moderate agreement, and the organization was able to respond to specific functional adversities faced during the pandemic, as shown by a mean score of 3.70. The respondents were in moderate agreement that the organization was able to activate new relationships and networks in the face of serious disruption, as shown by a mean score of 3.57. The impact of the pandemic saw airline cargo companies seek partnerships and collaborations with other entities.

The output showed a mean value of 3.47 that the organization leveraged its resources to respond creatively to adversities faced during the pandemic, showing moderate agreement among respondents. The crisis called on organizations to use their

available resources to remain profitable or operational during this period, and the findings suggest airline cargo companies were able to achieve this to a moderate degree. The mean value of 3.43 reveals respondents' moderate agreement that the top management's allocation, deployment and employment of organizational resources reshaped the organizational strategies during the pandemic. This deployment consisted of allocating resources to business activities that would contribute to resilience, including retiring and parking larger fleets in favor of smaller or low-carrier fleets that required less maintenance costs during the pandemic.

Table 4.10: Organizational resilience statistics

Items	Mean	Std. Deviation
The organizations were capable of accurately sensing and recognizing useful resources available from their external partners	3.77	1.092
The organization was able to be flexible in its response to adversities faced during the onset of the pandemic	3.81	1.107
The organization was able to respond to specific functional adversities faced during the pandemic	3.70	0.890
The organization's members possess a collective meaning and understanding of disruptive events/situations	3.86	1.011
The organization was able to activate new relationships and networks in the face of serious disruption	3.57	1.187
The organization was able to be innovative and coordinate in response to the adversity faced during the pandemic	3.90	0.980
The organization's top management identified and interpreted adversities facing the company during the pandemic	4.17	1.049
The organization leveraged its resources to respond creatively to adversities faced during the pandemic	3.47	1.422
The top management's allocation, deployment and employment of organizational resources reshaped the	3.43	1.389

organizational strategies during the pandemic		
Overall mean score	**3.74**	**1.125**

Source (Author, 2025)

4.5 Correlation Analysis

The correlation analysis shows positive associations between independent variables and dependent variables. However, only diversification strategies had a positive and significant association with organizational resilience, as a correlation coefficient of .510 ($p < 0.05$) was reported. Positioning strategy had a correlation coefficient of .111 with organizational resilience but this was not statistically significant ($p > 0.05$). Cost reduction strategies had a .073 correlation coefficient with organizational resilience, but this was statistically insignificant ($p > 0.05$) as shown in Table 4.11.

Table 4.11: Correlation coefficients

		Strategic positioning	Cost Reduction strategies	Diversification strategies
Strategic positioning	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	70		
Cost reduction strategies	Pearson Correlation	.485**	1	
	Sig. (2-tailed)	0.000		
	N	70	70	
Diversification strategies	Pearson Correlation	.373**	0.147	1
	Sig. (2-tailed)	0.001	0.225	
	N	70	70	70
Organizational resilience	Pearson Correlation	0.111	0.073	.510**
	Sig. (2-tailed)	0.360	0.546	0.000
	N	70	70	70

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

Source (Author, 2025)

4.6 Regression Analysis

The study performed regression analysis to determine the effect of the independent variables on the organizational resilience of cargo airlines as per the objectives set. In the second model, control variables were introduced into the original model and these findings are summarized in three output tables interpreted in the following subsection.

4.6.1 Positioning strategies and organizational resilience among cargo airlines

Table 4.12 shows that positioning strategies explained 1.2% of change in organizational resilience among cargo airline companies but this was not statistically

significant as the *p* value was greater than 0.05. Positioning strategies had a positive but insignificant effect on organizational resilience ($\beta = 0.105$, $p > 0.05$).

Table 4.12: Positioning strategies and organizational resilience results

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.111a	0.012	-0.002	0.58992		
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	0.296	1	0.296	0.850	.360
Residual	23.665	68	0.348		
Total	23.961	69			
	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	3.360	0.417		8.056	0.000
Strategic positioning	0.105	0.113	0.111	0.922	0.360

a Dependent Variable: Organizational resilience
b Predictors: (Constant), Positioning strategies

4.6.2 Cost reduction strategies and organizational resilience among cargo airlines

Table 4.13 shows cost reduction strategies explained 0.5% of change in organizational resilience among cargo airline companies but this was not statistically significant as the *p* value was greater than 0.05. Cost reduction strategies had a positive but insignificant effect on organizational resilience ($\beta = 0.089$, $p > 0.05$).

Table 4.13: Cost reduction strategies and organizational resilience results

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.073a	0.005	-0.009	0.592		
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	0.129	1	0.129	0.368	.546
Residual	23.832	68	0.35		
Total	23.961	69			
	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	3.424	0.524		6.539	0.000
Cost reduction strategies	0.089	0.147	0.073	0.607	0.546

a Dependent Variable: Organizational resilience

b Predictors: (Constant), Cost reduction strategies

4.6.3 Diversification strategies and organizational resilience among cargo airlines

Table 4.14 shows diversification strategies explained 2.6% of change in organizational resilience among cargo airline companies but this was not statistically significant as the *p* value was greater than 0.05. Diversification strategies had a positive but insignificant effect on organizational resilience ($\beta = 0.548$, $p < 0.05$).

Table 4.14: Diversification strategies and organizational resilience coefficients

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.510a	0.260	0.249	0.51052		
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	6.238	1	6.238	23.934	.000
Residual	17.723	68	0.261		
Total	23.961	69			
	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	1.74	0.413		4.212	0.000
Diversification strategies	0.548	0.112	0.510	4.892	0.000

a Dependent Variable: Organizational resilience
b Predictors: (Constant), Diversification strategies

4.7 Multiple Linear Regression Analysis

Table 4.15 shows that 27% of change in the organizational resilience among cargo airline companies was explained by positioning, cost reduction, and diversification strategies. This influence was statistically significant given the positive F statistic (F = 8.117) and a p value of 0.000 ($p < 0.05$). The finding indicates that strategic positioning had a negative but insignificant effect on organizational resilience ($\beta = -0.110$, $p > 0.05$). cost reduction strategies had a positive but insignificant effect on organizational resilience ($\beta = 0.061$, $p > 0.05$). diversification strategies had a positive and statistically significant effect on organizational resilience ($\beta = 0.587$, $p < 0.05$).

Table 4.15: Coefficients of the multiple linear regression

R	R Square	Adjusted R	Std. Error of the Estimate

		Square			
.519a	0.27	0.236	0.51497		
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	6.458	3	2.153	8.117	.000
Residual	17.503	66	0.265		
Total	23.961	69			
	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	1.783	0.576		3.097	0.003
Positioning strategies	-0.110	0.121	-0.117	-0.910	0.366
Cost reduction strategies	0.061	0.147	0.05	0.414	0.680
Diversification strategies	0.587	0.122	0.546	4.816	0.000

a Dependent Variable: Organizational resilience
b Predictors: (Constant), Diversification strategies, Cost reduction strategies, positioning strategies
Source (Author, 2025)

4.8 Chapter Summary

The findings showed that diversification strategies (M=3.64) were more observed in the sample in comparison to positioning strategies (M=3.63) and cost reduction strategies (M=3.52). Regarding their association with organizational resilience, the findings revealed a positive and statistically significant correlation between diversification strategies and organizational resilience. This suggests that organizations that employed diversification strategies were more resilient during the crisis, with the ability to adapt to changes in the market and sustain their operations. On the other hand, both positioning and cost reduction strategies did not show any significant association with organizational resilience, indicating that these strategies alone might not have been sufficient to enhance resilience during the crisis. The regression analysis further indicated that the model explained 27.1% of the variation in organizational resilience, a statistically significant result. This explanation rose to 27.3% after including the control variables (firm age, firm size, and firm focus). However, the findings indicated that diversification was the only strategy that showed a positive and significant relationship with resilience with its effect reducing from 0.587 to 0.566 further showing the influence of the control variables on organizational

resilience and, reinforcing the idea that expanding into new markets and diversifying operations can be key factors in helping cargo airlines navigate and recover from crises. The lack of significant findings for positioning and cost reduction strategies suggests that these approaches alone may not contribute as strongly to long-term resilience in the cargo airline industry.

The findings offer valuable insights into the impact of diversification strategies on organizational resilience in the cargo airline industry. The following chapter provides a discussion, critically analyzing the role that diversification plays in enhancing resilience, while also exploring why positioning and cost reduction strategies did not show a significant impact. Moreover, the chapter will draw conclusions based on the findings and give recommendations for key stakeholders such as airline managers, policymakers, and industry leaders to inform strategic decision-making, helping the sector better prepare for future disruptions and improve overall resilience.

CHAPTER FIVE:
DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of the study was to examine crisis response strategies and their effect on the organizational resilience of cargo airlines in Kenya. Its specific objectives were to establish the influence of positioning strategies on organizational resilience among cargo airlines in Kenya; to establish the influence of cost reduction strategies on organizational resilience among cargo airlines in Kenya; and to establish the influence of diversification strategies on organizational resilience among cargo airlines in Kenya. This chapter provides a summary of findings, a discussion of its findings based on the three objectives, conclusions, and recommendations for policy, practice, and theories, study limitations, and suggestions for future research are highlighted.

5.2 Summary of the Findings

The airline industry faced significant consequences during the pandemic following international travel restrictions. The cargo airline sector, similar to the passenger airline industry, faced this uncertainty and had to resort to specific strategies to remain resilient during this period. Global research trends show interest in the relationship between strategies used by these companies and their outcomes during the pandemic, including their resilience. Therefore, this research investigated crisis response strategies and organizational resilience among cargo airlines in Kenya. The study was guided by three specific objectives that were to: establish the influence of positioning strategies on organizational resilience among cargo airlines; establish the influence of cost reduction strategies on organizational resilience among cargo airlines; and establish the influence of diversification strategies on organizational resilience among cargo airlines in Kenya.

The research was anchored on Porter's generic strategies, balanced scorecard model, and the dynamic capabilities view. The study followed a postpositivist research philosophy and a descriptive cross-sectional research design. The target population consisted of the 25 cargo airline companies as units of analysis, while 75 management staff from these companies represented their units of observation. In each company, a top-level manager, a middle manager, and a low-level manager were recruited using purposive sampling methodology. Google Forms were sent to these respondents after

confirming the validity and reliability of the questionnaire following a pilot study with 11 respondents excluded from the survey. Descriptive statistical analysis was first done, and thereafter, correlation and regression tests were performed at the 95% confidence level. The findings revealed that positioning strategies and cost reduction strategies did not have positive outcomes on the resilience of airline cargo companies. On the other hand, using diversification strategies would improve the organizational resilience of airline cargo companies. The next section discusses positioning strategies and organizational resilience.

5.2.1 Positioning Strategies and Organizational Resilience

Positioning is a strategy that companies utilize to design their products, image, or services in a manner that it stands out in a competitive industry and find a meaningful position in the mind of their target customers (Saqib, 2021) is a company's deliberate effort to differentiate itself from competitors by creating unique value for its targeted customers to gain a competitive edge and increase profitability (Saqib, 2021). Strategic positioning benefits to an organization lie in the internal analysis of external competitive environments and the matching of resources with environmental opportunities (Hussein & Hadi, 2023). In this study, the positioning strategies examined included cost leadership, differentiation, and focus strategies.

The results of the regression coefficients indicate that a unit increase in the strategic positioning strategy would result in an 11% decrease in organizational resilience, but this was non-significant. Strategic Positioning strategies among airline companies during the pandemic included focusing on extending long-haul destinations, combining market share in local hubs, and utilizing strengths in these markets (Arrigo et al., 2023). This finding corroborates previous research that has provided evidence of no relationship between positioning strategies and better resilient outcomes for companies. For example, Alieksieichenko (2020) research in Ukraine confirmed that pricing was a strategic positioning tactic adopted by airline companies, but this was not effective during the pandemic.

Most evidence on positioning strategies shows a positive relationship with the resilience of airline cargo companies, implying that this finding goes against the evidence. This includes Fan's (2021) research that reported that positioning price strategy was effective for the short term, but companies matched their price

positioning strategy to the changing environment of the pandemic's severity. Using the example of Finnair activities during the Russia-Ukraine War and the COVID-19 pandemic, Leppäjärvi (2024) showed evidence to prove that positioning strategies was successful when a company used their already existing extensive network in Europe to other destinations in Asia, thus contributing to its resilience during the pandemic.

The descriptive findings showed that airline cargo companies used cost leadership strategies to situate themselves in the sector, as respondents agreed that they streamlined their operations to reduce costs to their clients. Xu et al. (2023) provided evidence that airline companies were streamlining procedures and collaborating around common standards in an effort for all parties to significantly improve the robustness and efficiency of the air cargo supply chain. Vinod (2022) suggested that airline cargo companies should incorporate airline pricing to promote and enhance their revenue planning to better manage their resilience during a crisis. The next section presents discussions on cost reduction strategies and organizational resilience.

5.2.2 Cost Reduction Strategies and Organizational Resilience

Cost reduction in logistics refers to the process of reducing expenses associated with the transportation and storage of goods. This can be achieved through various methods such as optimizing supply chain management, increasing operational efficiency, utilizing technology, and negotiating better deals with suppliers and other carriers to enhance competitiveness and profitability while still being able to maintain a high level of standards in their service (Bäckström, 2024). In this study, cost reduction strategies were operationalized into the four dimensions of the BSC.

The regression coefficient output showed that using cost reduction strategies would obtain a 6.1% increase in organizational resilience, but this was statistically insignificant. This finding agrees with those of Özbek and Araci (2025), who found that companies may not find a huge impact of cost savings on their resilience, but there indeed was an effect of these efforts, especially for low-cost carriers that had lower operational costs. This finding suggests that the sample airline cargo companies' operational costs were high and therefore resulted in little resilience from their cost-cutting measures.

Other findings indicate that cost-cutting may be a more cumbersome strategy to adopt for companies to remain resilient during the pandemic. In the case of Finnair, the firm placed more emphasis on its cost structure and attempted to reduce its costs in areas where it would hurt its operations the least. Nevertheless, using cost-effective measures required the firm to cut costs in areas where it was not well-informed to cut costs (Ackrén, 2024). Other studies (Adrienne, et al., 2020, & Albers, et al., 2020) revealed that airlines in Europe cost-cutting measures were able to buy them time to remain profitable and resilient during the pandemic.

Further, the findings revealed different approaches to cost reduction, including reducing operational costs and using technology to automate some functions to reduce dependence on employees. Hudáková (2021) results in Austria indicated airlines participated in the retirement of old aircraft as well as introduced cost-efficient models by adopting automation of their operations. Similarly, Dufay et al. (2023) findings highlighted acceleration in automation as one of the strategies that were implemented by companies to survive the COVID-19 pandemic.

In addition, the findings showed that airline cargo companies did not resort to outsourcing to reduce costs. This shows that some companies were not outsourcing their services to remain resilient in times of crisis, and this has also been supported in other countries. In Indonesia, for example, Rayinah and Chalid (2020) evaluated the Garuda air cargo model and found that not integrating its services and its concentration of controlling air cargo terminal services did not do much for its profits, showing the company was better off outsourcing. This can be used to explain the marginal effect that cost reduction strategies had on resilience among Kenyan airline cargo companies. The next section presents discussions on diversification strategies and organizational resilience.

5.2.3 Diversification Strategies and Organizational Resilience

Diversification strategies are approaches used by companies to extend their coverage and reach using geographical or product diversification methods (Benito-Osorio et al., 2020). Geographical diversification is often used when entering new markets, while product diversification consists of introducing new components or products in the company's portfolio (Benito-Osorio et al., 2020). In this study, diversification

strategies were based on Prayag et al.'s (2024) conceptualization, consisting of reconfiguring, creating, developing, and assimilating.

The results revealed that a unit increase in diversification strategies would lead to a 58.7% increase in organizational resilience, and this was statistically significant at the 95% confidence level. This finding supports previous research that observed a positive relationship between diversification and better resilience outcomes for airline companies. For instance, Jaroenjitrkam et al. (2023) cross-country data revealed that diversifying through M&As contributed to resilience during the pandemic. In another research, Yong and Laing (2021) data from 2,836 firms revealed internationalization contributed to companies being resilient due to their geographical diversification efforts during the pandemic. One good example of this outcome was Turkish Cargo (a subsidiary of Turkish Airline's active role in pharmaceutical shipments which became the leading air cargo brand worldwide, significantly expanding its revenue base (Özbek & Araci, 2025).

There was moderate agreement that organizations deployed existing knowledge management to tap into new market segments. According to Sede et al. (2023), those companies that can utilize their knowledge will boost their resilience. When the firm uses its available knowledge in improving services provided to its customers by effectively managing different sources and types of knowledge, this new knowledge is utilized to overcome hindrances to resilience. The descriptive findings further revealed that airline cargo companies were actively engaged in building relationships within the sector during the. Kim (2021) provided proof that using resilience-oriented crisis communication is attainable by strategic external and internal relationship and communication building with stakeholders and staff.

The relationship between diversification and resilience for airline companies may not always be straightforward, as the findings contradict earlier empirical evidence. One such study from the United Arab Emirates (UAE) indicated that airline companies' diversification efforts did not significantly enhance their disaster management and therefore could not contribute to organizational effectiveness. This implies that airline companies would not be able to achieve resilience when faced with a crisis (Alhosani et al., 2024). The findings support the DCV that guided the research in terms of understanding the concept of diversification strategies. According to Noori et al.

(2012), dynamic capabilities are a company's ability to sense (recognize), seize (integrate), and leverage resources and link them to the changing environment to exit some markets while entering others to remain resilient. This study joins other studies (Belhadi et al., 2021; Prayag et al., 2024) that have provided support for the dynamic capabilities view in promoting resilience.

5.3 Conclusion

This research examined crisis response strategies and their effect on the organizational resilience of cargo airlines in Kenya. Its specific objectives were to establish the influence of positioning strategies on organizational resilience among cargo airlines in Kenya; to establish the influence of cost reduction strategies on organizational resilience among cargo airlines in Kenya; and to establish the influence of diversification strategies on organizational resilience among cargo airlines in Kenya. The results showed a negative but insignificant effect of positioning strategies on organizational resilience. Therefore, this study concludes that positioning strategies do not have any effect on the resilience of airline cargo companies in Kenya. Second, findings showed a positive but insignificant effect of cost reduction strategies on organizational resilience. Therefore, the study concludes that cost reduction strategies did not have any effects on resilience of airline cargo companies. Third, the findings showed an increase in diversification strategies would increase organizational resilience. Therefore, it is the study's conclusion that diversification strategies have a positive outcome for organizational resilience of airline cargo companies.

5.4 Recommendations

Based on its findings, the study makes the following recommendations for policy, practice, and research.

5.4.1 Recommendations for Policy

The findings revealed that diversification strategy had positive outcomes on organizational resilience among airline cargo companies. To safeguard the airline industry from the effects of pandemics and improve organizational resilience, several policy recommendations can be considered.

1. Crisis response frameworks should be established to ensure airlines have preemptive measures in place, such as workforce adjustments and cost management, as evidenced by studies like Gualini (2023) and Nyamoh (2022).

2. Secondly, diversification and market expansion should be encouraged through financial incentives, helping airlines reduce dependency on single markets. Research by Sari et al. (2020) and Belhadi et al. (2020) highlights the importance of diversification in sustaining operations, as seen with AirAsia's pivot to cargo services during the pandemic.

3. Thirdly, technological advancements and automation should be supported, as they improve operational efficiency and reduce costs. Hudáková (2021) demonstrated that automation played a key role in maintaining airline operations during the pandemic.

4. Fourth, the government should develop policy guidelines to improve cross-border agreements with non-traditional markets that allow easier and faster movement of cargo between countries and regions, especially during global crises where trade routes may be disrupted. This could include promoting collaborative partnerships and alliances to enhance resilience, with examples like the M&As discussed by Jaroenjitrkam et al. (2023) showing how airlines survived by increasing their market share. Another is a policy to support infrastructure development for intermodal connectivity to facilitate the connection of cargo airline transport with other forms of transport, including rail, sea, and road.

5. Flexible regulatory frameworks can ease financial pressures during crises, as found in the study by Loo et al. (2021), which showed the benefit of adaptable regulations in maintaining safety and continuity. Governments can give priority to movements of essential goods for cargo airlines to face little or no restrictions or delays in international trade. Such actions could include pausing tariffs on these essential goods or providing customs support to speed up the processes.

6. Policy from the government to support the transition of air cargo companies to shift their operations to green and sustainable energy to reduce their overhead

costs, and this can protect them from experiencing huge losses in times of uncertainty.

7. Lastly, having policies focused on employee welfare and training, ensuring a skilled workforce and offering support during workforce reductions. Demir et al. (2021) demonstrated that workforce adjustments, like layoffs and wage cuts, were critical for cost management during the pandemic.

These policy recommendations aim to improve the resilience of airlines by addressing key areas such as crisis preparedness, diversification, technology, collaboration, regulation, and employee welfare.

5.4.2 Recommendations for Practice

The findings revealed that the diversification strategy had positive outcomes on organizational resilience among cargo airline companies. The study recommends that top leadership and managers in the sector focus on building their market and product diversification to enhance their resilience in times of crisis. The specific recommendations include:

1. Market Diversification for Kenyan Cargo Airlines. Cargo airlines in Kenya should focus on diversifying into emerging markets, such as Latin America, Asia, and Australia, instead of relying solely on European and U.S. routes. Expanding into these regions can provide new revenue streams, like what airlines in Brazil did during the pandemic (Santos et al., 2021).

2. Regional Partnerships and Alliances: Establishing regional alliances with airlines across East Africa can help airlines build shared networks and reduce operational risks. Collaborative strategies, such as those implemented during the pandemic in Southeast Asia, have contributed to business continuity (Belhadi et al., 2020).

3. Expanding and Diversifying Routes: Expanding into underserved markets, such as India and China, would help cargo airlines capitalize on growing trade volumes. Expanding routes in East Africa can further help airlines take advantage of intra-regional trade (Chutiphongdech et al., 2023).

4. Risk Management and Crisis Preparedness: Implementing comprehensive risk management and crisis preparedness frameworks would enable airlines to maintain operational continuity during global disruptions. Strategies such as maintaining contingency funds and having backup suppliers, as used by airlines in Europe and North America during the pandemic (Arrigo et al., 2023), are essential.

5. There is also a need for cargo airline companies to digitalize their operations to reduce their overhead costs when faced by crisis or uncertain events such as the COVID-19 pandemic.

This strategic shift could help cargo airlines diversify their revenue streams, ensure long-term sustainability, and strengthen their ability to respond to crises effectively.

5.4.3 Recommendations for Theory

Based on the findings of this research, several contributions can be made to the theoretical frameworks used: Porter's generic strategy, balanced scorecard and dynamic capabilities view theories. These theories helped explain how cargo airlines, particularly in Kenya, navigated the challenges posed by the pandemic and adapted their strategies for resilience. The following recommendations aim to extend and refine the application of these theories in the context of the airline industry, with particular emphasis on organizational resilience.

1. Refined Dynamic Capabilities View (DCV): The study highlighted that diversification strategies enhanced organizational resilience, supporting the DCV. Future research was recommended to refine DCV by focusing on market flexibility and risk management, particularly in emerging economies like Kenya.

2. Expansion of Porter's Generic Strategy Framework: While Porter's Generic Strategy framework, which includes cost leadership, differentiation, and focus, provided a solid foundation for understanding competitive strategies. The study highlights the importance of diversification as a key strategic response to enhance resilience. Future research was advised to integrate diversification into Porter's framework, providing a more comprehensive view of competitive advantage.

3. Integration of Balanced Scorecard with DCV: The combination of the Balanced Scorecard with DCV was recommended to improve resilience assessment by adding metrics such as adaptability and innovation. This was expected to provide a holistic approach to strategic management during crises (Kaplan & Norton, 1996).

4. Contextualization of Theories in Emerging Markets: Theories were recommended to be adapted to address the unique challenges in emerging markets like Kenya, where infrastructure and regulatory issues affected resilience strategies. This contextualization aimed to deepen the understanding of organizational resilience in such regions (Binns, 2019).

In summary, the study contributed to refining and expanding the application of Porter's Generic Strategy, the BSC, and DCV in the context of organizational resilience, particularly in emerging economies. Future research was encouraged to explore how these theories could be further adapted to improve crisis management strategies in these markets.

5.5 Limitations of the Research

While this study has contributed valuable insights into the relationship between positioning, cost reduction, diversification, and organizational resilience in cargo airlines, there are several limitations that must be acknowledged. First, the study was limited to cargo airline companies operating from Jomo Kenyatta International Airport (JKIA), and smaller companies operating from the other airports in Mombasa, Kisumu, and Eldoret were excluded from the survey. Thus, its findings are limited to this facility. Secondly, cross-sectional design does not account for the potential changes in organizational strategies or resilience over time. The dynamic nature of resilience, particularly in response to evolving crises like the COVID-19 pandemic, suggests that longitudinal studies would provide a more comprehensive understanding of how these strategies impact resilience over different phases of a crisis.

Thirdly, while the study focused on the relationship between diversification, cost reduction, positioning strategies, and organizational resilience, other important variables such as leadership and organizational culture were not explored in detail. These factors could also play a significant role in shaping resilience. Future research

could include a broader range of variables to better understand the multidimensional nature of resilience in the airline industry.

Although the study integrated Porter's Generic Strategy , BSC and DCV to explain the relationship between strategic actions and resilience, the application of these theories in the specific context of the Kenyan cargo airline industry is still a relatively unexplored area. While the findings support the utility of these theories, it is possible that other frameworks could offer additional insights, especially when considering the impact of regulatory and environmental constraints. Expanding the theoretical framework in future studies could lead to a more nuanced understanding of the complex dynamics at play.

5.6 Suggestions for Further Research

Building upon the scope and findings of the present study, several areas are identified for further inquiry to advance knowledge on crisis response strategies and organizational resilience within the cargo airline sector.

5.6.1 Longitudinal Research Approaches

Given that resilience evolves over time and is often influenced by the stage and duration of a crisis, longitudinal research designs would be well-suited to track the changing effects of strategic responses throughout different phases of disruption and recovery. This would provide a richer understanding of how strategies such as diversification or cost control contribute to sustained organizational performance and adaptation.

5.6.2 Focus on Implementation Barriers

Further research could delve into the practical constraints that hinder the effective deployment of positioning, diversification, and cost-reduction strategies. Understanding these challenges, whether resource limitations, regulatory hurdles, or cultural resistance, would enhance the applicability of theoretical models to real-world practice.

5.6.3 Technological Innovation and Digital Transformation

As technology becomes increasingly central to logistics and airline operations, future studies could examine the role of digital transformation in building resilience.

Specifically, research might explore how automation and blockchain can support more agile and responsive decision-making during crises.

5.6.4 Employee-Centric Perspectives

Organizational resilience is not only structural but also behavioral. Research exploring the perceptions, experiences, and contributions of employees at different levels, particularly during strategic transitions, could provide meaningful insights into how human factors support or hinder resilience efforts.

5.6.5 Theory Integration and Development

This study was guided by Porter's Generic Strategies, the Balanced Scorecard, and the Dynamic Capabilities View. Future research could develop integrated theoretical frameworks that explain the interaction of internal capabilities and external strategic choices more holistically. There is also an opportunity to test alternative theoretical perspectives, such as institutional theory or stakeholder theory, which may offer novel explanations for organizational behavior in high-uncertainty environments. In sum, advancing research along these lines will contribute significantly to the academic and practical understanding of how cargo airlines—and potentially the broader aviation sector—can strengthen their strategic responses and resilience in the face of future crises.

In conclusion, this study examined the relationship between crisis response strategies, specifically positioning, cost reduction, and diversification, and organizational resilience among cargo airlines in Kenya. Grounded in Porter's Generic Strategies, the Balanced Scorecard, and the Dynamic Capabilities View, the research employed a quantitative approach to assess how these strategies influence resilience in times of crisis, particularly within the context of the COVID-19 pandemic. The findings highlighted that while diversification strategies significantly contributed to organizational resilience, positioning and cost reduction strategies did not yield a statistically significant impact. These results provide theoretical and practical implications, offering insights into policy formulation, managerial decision-making, and future research. Overall, the study contributes to a growing body of knowledge on how strategic agility and adaptive capabilities can enhance resilience in niche and vulnerable sectors such as air cargo transport in developing economies.

REFERENCES

Abdulla A. A. A. Alhosani, A. A. A. A., Mohamed, S., Kudus, N., &, Rahman, Z. A. (2024). The Impact of Diversification on Crisis and Disaster Management Effectiveness in the Aviation Industry: Evidence from the United Arab Emirates. *International Journal of Academic Research In Business And Social Sciences, 14*(12), 1814-1825.

Ackrén, A. E. (2024). *The Development of Strategic Resilience in Airline Industry During Covid-19: Case Finnair*. Unpublished master's thesis. University of Vaasa.

Adrienne, N., Budd, L., & Ison, S. (2020). Grounded aircraft: An airfield operations perspective of the challenges of resuming flights post COVID. *Journal of Air Transport Management, 89*, 1-7.

Agrawal, R., Suhan, M., Yasser, Q. R., Spulbar, C., Birau, R., & Popescu, L. D. (2022). The impact of COVID-19 pandemic on air transport: the case of Virgin Australia airlines. *Economic Research-Ekonomska Istraživanja, 36*(2), 1-22.

Air Mauritius (2022). *Annual Report 2020/2021*. Port Louis: Air Mauritius.

Albers, S., & Rundshagen, V. (2020). European Airlines ' strategic responses to the COVID-19 pandemic (January-May, 2020). *Journal of Air Transport Management*, 87,

Ansaharju, A., & Sorvi, S. (2023). *Assessing The Resilience of Airlines to Geopolitical Shocks – Case*. Unpublished master's thesis. Aalto University School of Business.

Anyango, P. C. (2014). *Service Quality and Customer Satisfaction in Kenya Airways Cargo Operations*. Unpublished research project. University of Nairobi.

Aparna, S. M., & Sahney, S. (2022). Examining resilience: the role of creativity-oriented high-performance work practices and role clarity. *Journal of Organizational Change Management, 35*(7), 1047-1060.

Arora, M., Tuchen, S., Nazemi, M., & Blessing, L. (2021). Airport pandemic response: An assessment of impacts and strategies after one year with COVID-19. *Transportation Research Interdisciplinary Perspectives, 11,* 2-13.

Arrigo, U., Beccarello, M., & Di Foggia, G. (2023). Strategic Response of European Airlines to Market Dynamics: A Comparative Analysis. *Administrative Sciences 13*(12), 1-14.

Awa, H. O., Nwobu, A. C., & Igwe, S. R. (2021). Service failure handling and resilience amongst airlines in Nigeria. *Cogent Business & Management, 8*(1), 1-22.

Bäckström, H. K. (2024). *Navigating the Intersection: Cost Reduction and Sustainability in Logistics Strategies.* Unpublished master's thesis. Jonkoping University.

Bajnai, P., & Popovics, P. (2020). Practical Application of the Balanced Scorecard Model: A Balanced Strategic Indicator System. SEA - Practical Application of Science, 24, 271-277.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*, 99-120.

Bataineh, A., AL- Shwiyat, Z., & Alrjoub, A. (2019). The effect of using balanced scorecard (BSC) on reducing production costs in the Jordanian industrial companies. *Journal of Business and Retail Management Research, 13*(3), 190-202.

Belhadi, A., Kamble, S., Jabbour, C. J. C., Gunasekaran, A., Ndubisi, N. O., & Mani, V. (2021). Manufacturing and service supply chain resilience to the COVID-19 outbreak: Lessons learned from the automobile and airline industries. *Technological Forecasting and Social Change, 163*(1), 2-20.

Benito-Osorio, D., Colino, A., Guerras-Martín, L. Á., & Zúñiga-Vicente, J. Á. (2020). The combined effects of product and geographical diversification on performance: Evidence in manufacturing SMEs. *Business Research Quarterly, 23*(2), 91-106.

Bilbas, A. S (2018). The Relationship between balanced Scorecard and Cost Reduction An Empirical study on Public sectors in Kurdistan Region. *International journal of Engineering, Business and Management, 2*(4), 44-56.

Björndahl, A., & Nilsson, V. (2023). *Strategic Management of Organizational Resilience in SMEs A multiple case study of SMEs from a Resource-based view and Dynamic capabilities view*. Unpublished thesis. Jönköping University.

Bouali, S., Douha, S., & Khadri, N. (2020). To what extent is air freight affected by the Coronavirus pandemic? *Journal of Sustainable Development of Transport and Logistics*, *5*(2), 98–108.

Børing, P. (2020). Effect of Firms' Age on Their Use of Highly Skilled Workers. *Labour, 34*(2) 137–153.

Bundy, J., Pfarrer, M. D., Short, C. E., & Coombs, W. T. (2017). *Crises and crisis management: Integration, interpretation, and research development*. Journal of Management, 43(6), 1661–1692. https://doi.org/10.1177/0149206316680030

Carri, A. D. (2019). *Organizational Resilience How SMEs Overcome Crisis: An Empirical Analysis.* Università degli Studi di Padova. Padua. Italy.

Chao, C-C., & Hsu, C-W. (2014). Cost analysis of air cargo transport and effects of fluctuations in fuel price. *Journal of Air Transport Management, 35,* 51-56

Chatzoglou, P. D., Chatzoudes, D., & Kipraios, N. (2018). The impact of strategic planning on organizational performance through strategy implementation. Journal of Management Research, 10(3), 15–42. https://doi.org/10.5296/jmr.v10i3.13304

Chmielewska-Muciek, D., Jakubczak, & Marzec-Braun, P. (2023). Crisis Response Strategies and Themes during the COVID-19 Pandemic in EU Aviation, Airlines' Executives Communication with Shareholders: A Content Analysis. *European Research Studies Journal, 24*(8), 276-299.

Chowdhury, M. F. (2014). Interpretivism in Aiding Our Understanding of the Contemporary Social World. *Open Journal of Philosophy, 4,* 432-438.

Chukwu, L. C., & Ifeoma, N. G. (2021). Cost Optimization Strategies And Financial Performance Of Communication Companies In Nigeria. *Global Research Journal of Accounting and Finance, 1*(1), 38-51.

Chutiphongdech, T., Apiluckserbsakul, N., Choktanasukarn, K., & Phengkona, J. (2023). Strategic Responses for The Airline Business During the Covid-19 Pandemic: A Review of Past Crises. *ABAC Journal, 43*(3), 1-13.

Coombs, W. T. (2007). *Ongoing crisis communication: Planning, managing, and responding* (2nd ed.). SAGE Publications.

Demir, S., Aktas, E., & Paksoy, T. (2021). Organizational flexibility of airlines during COVID-19: A study on the airline companies in Turkey. In: Kersten, Wolfgang & Ringle, Christian M. & Blecker, Thorsten (ed.), Adapting to the Future: How Digitalization Shapes Sustainable Logistics and Resilient Supply Chain Management. *Proceedings of the Hamburg International, 31,* 801-823.

Dieronitou, I. (2014). The Ontological and Epistemological Foundations of Qualitative and Quantitative Approaches to Research with Particular Reference to Content and Discourse Analysis of Textbooks. *International Journal of Economics, Commerce and Management, 2*(10), 1-17.

Duchek, S. (2020). Organizational resilience: A capability-based conceptualization. *Business Research*, 13(1), 215–246. https://doi.org/10.1007/s40685-019-0085-7

Dufay, L., Virolle, A., & Gay, U. (2023). *Adapting to Pandemics Disruptions during the Covid-19: an analysis of DHL's strategies for maintaining Supply Chain Capabilities.* Unpublished thesis. Jonkoping University.

Ebenuwa, A. O. (2022). Organizational Responsiveness and Marketing Resilience of Domestic Airlines in Nigeria. *International Journal of Management Sciences, 9*(3), 94 – 108.

EgyptAir (2022). *Annual Report 2020-2021*. Cairo: EgyptAir

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic Capabilities: What Are They? *Strategic Management Journal, 21*(10/11), 1105–1121.

EL Hajjar, S. T. (2018). Statistical Analysis: Internal-Consistency Reliability and Construct Validity. *International Journal of Quantitative and Qualitative Research Methods, 6*(1), 27-38.

Fan, Z. (2021). Research on the Marketing Strategy of Airline Industry Influenced by COVID-19. *Advances in Economics, Business and Management Research, 185,* 331-336.

Farhiya, F. (2015). *Strategic Positioning as a Source of Sustainable Competitive Advantage at the Norwegian Refugee Council, Dolo Ado- Ethiopia.* Unpublished master's research project. University of Nairobi.

Githira, D. W. (2008). *Factors That Influence Diversification Strategies of Insurance Companies in Kenya*. Unpublished research project. University of Nairobi.

Gomezelj, D. O. (2016). A systematic review of research on innovation in hospitality and tourism. International Journal of Contemporary Hospitality Management, 28(3), 516–558. https://doi.org/10.1108/IJCHM-10-2014-0510

Gössling, S. (2020). Risks, resilience, and pathways to sustainable aviation: A COVID-19 perspective. *Journal of Air Transport Management, 89,* 1-4.

Göv, S. A., & Erbay, N. (2021). The Effects of The Covid-19 Pandemic on The Aviation Industry and Strategies: Opinions of Turkish Aviation Academics. *International European Journal of Managerial Research, 5(*9), 326-341.

Gualini, A., Zou, L., & Dresner, M. (2023). Airline strategies during the pandemic: What worked? *Transportation Research, 170,* 1-22.

Gupta, A. K., Maheshwari, M., & Sharma, S. (2020). Internal Business Process Perspective of Balanced Scorecard: Driver to Outshine in Front of Customers and Shareholders (An Empirical Study on Inter-Bank and Inter-Sector Comparison of Public and Private Sector Banks In India). *Journal of Critical Reviews, 7*(13), 255-261.

Gyazova, M. M., & Siluyanova, M. V. (2022). Benefits of Diversification into Airfreight for Passenger Airlines. *Russian Engineering Research, 42*(3), 255–257.

Haarhaus, T., & Liening, A. (2020). Building dynamic capabilities to cope with environmental uncertainty: The role of strategic foresight. *Technological Forecasting & Social Change, 155, 1-12.*

Hajjar, B., & Kaitouni, O. D. (2018). Success Factors for developing Air cargo in African Markets. *Proceedings of the International Conference on Industrial Engineering and Operations Management.* Paris, France, July 26-27, 2018 © IEOM Society International, pp. 2450-2461.

Halaby, R., Rahi, K., & Azoury, N. (2023). Organizational Resilience from a Marketing Perspective: A Conceptual Framework. *Preprints*, 1-17.

He, Z., Huang, H., Choi, H., & Bilgihan, A. (2023). Building organizational resilience with digital transformation. *Journal of Service Management, 34*(1), 147-171.

Hepfer, M., & Lawrence, T. B. (2022). The Heterogeneity of Organizational Resilience: Exploring functional, operational and strategic resilience. *Organization Theory, 3*(1), 1-29.

Hussein, A. K., & Hadi, M. J. (2023). Strategic Positioning As A Major Driver For Enhancing Value-Added In Industrial Organizations: An Exploratory Study In The General Company For Soft Drinks. *International Journal of Studies in Business Management, Economics and Strategies, 2*(2), 12-31.

Ibrahim, A. S. (2022). *Effect of Risk Management Strategies on Performance of Air Freight Firms in Kenya*. Master's thesis. United States International University, Nairobi, Kenya.

Imhanzenobe, J., Adejumo, O., & Olapeju Ikpesu, O. (2021). A review of knowledge management and its application in the contemporary business environment. *African Journal of Business Management, 15*(10), 274-282.

Inan, T. T. (2024). The Multi-Year Period Analysis of the Air Freight Industry Pre- and PostCOVID-19. *LOGI – Scientific Journal on Transport and Logistics, 15*(1), 189-200.

Irungu, A. N., & Kitur, B. (2023). Organizational Performance of Cargo Airlines in Kenya: A Case Study of Kenya Airways Cargo. *International Journal of Research Publication and Reviews, 4*(10), 3174-3184

Jaroenjitrkam, A., Kotcharin, S., & Maneenop, S. (2023). Corporate resilience to the COVID-19 pandemic: Evidence from the airline industry. *The Asian Journal of Shipping and Logistics, 29,* 26-36.

Kamau, C. (2019). *Effect of Response Strategies on the Performance of Airlines: A Case of Kenya Airways Limited by Bettina.* Unpublished research project. United States International University – Africa.

Kant, S-L. (2014). The Distinction and Relationship between Ontology and Epistemology: Does It Matter? *Politikon: IAPSS Political Science Journal, 24,* 68-85.

Kenya Airways (2021). 2022 *Integrated Report & Financial Statements.* Nairobi: Kenya Airways.

Kenya National Bureau of Statistics (2022). *2022 Economic Survey*. Nairobi: KNBS.

Khan, T. Z. A., Farooq, W., & Rasheed, H. (2019). Organizational Resilience: A Dynamic Capability of Complex Systems. *Organizational Resilience and Complex Systems, 6*(1), 1-26.

Khosla, M. (2023). Brand Positioning Strategies to Achieve Profitability and a Competitive Advantage. *International Journal of Research Publication and Reviews, 4*(11), 3156-3161.

Kim, Y. (2021). Building Organizational Resilience Through Strategic Internal Communication and Organization–Employee Relationships. *Journal of Applied Communication Research, 49*(5), 589-608.

Kimeria, T. B., Kariuki, P., Muturi, W., & Wanjohi, P. (2020). influence of strategic alliances on the performance of airline carriers registered under International Airport Transport Authority: A literature-based review. *African Journal of Emerging Issues, 2*(2), 48-69.

Kiprop, V. K., Kiplagat, N., Kamau, G., & Wacira, A. (2023). Effect of Cost Cutting Strategy on Performance of Star Rated Hotels in Nairobi County. *The International Journal of Business Management and Technology, 7*(6), 135-140.

Kiraci, K., Tanriverdi, G., & Akan, E. (2023). Analysis of Factors Affecting the Sustainable Success of Airlines During the COVID-19 Pandemic. *Transportation Research Record, 2677*(4) 350–379.

Kogut, B., & Kulatilaka, N. (2001). Capabilities as real options. *Organization Science, 12*, 744-758.

Le, H. (2019). Literature Review on Diversification Strategy, Enterprise Core Competence and Enterprise Performance. *American Journal of Industrial and Business Management, 9*, 91-108. https://doi.org/10.4236/ajibm.2019.91008

Lee, J., & Slater, J. (2022) Evolution of Dynamic Capabilities in Crisis Management System: A Proposition from the Cases of Multinationals from NIEs. *Open Journal of Business and Management, 10*, 1362-1372.

Lee, S., & Chen, G. (2022). Understanding financial resilience from a resource-based view: Evidence from US state governments. *Public Management Review, 24*(12), 1980–2003.

Lengnick-Hall, C. A., Beck, T. E., & Lengnick-Hall, M. L. (2011). Developing a capacity for organizational resilience through strategic human resource management. *Human Resource Management Review*, 21(3), 243–255. https://doi.org/10.1016/j.hrmr.2010.07.003

Leppäjärvi, P. (2024). *Airline Resilience in the Dual Crisis: Case Finnair: Strategic Adaptations in Finnair's East Asia Operations During Covid-19 and Russia-Ukraine War*. Unpublished thesis. Jönköping University.

Li, P. P. (2020). Organizational Resilience for a New Normal: Balancing the Paradox of Global Interdependence. *Management and Organization Review, 16*(3), 1-7.

Lu, C, Yin, T., Cheng, M., Karanki, F., & Fu., H. (2023). A Bibliographical Analysis of Pragmatic Strategies Responding to the Pandemic Crisis in Aviation. *Collegiate Aviation Review International, 41*(1), 29-55.

Madani, F., & Parast, M. M. (2023). An integrated approach to organizational resilience: a quality perspective. *International Journal of Quality & Reliability Management, 40*(1), 192–225.

Maksimović, J., & Evtimov, J. (2023). Positivism And Post-Positivism as the Basis of Quantitative Research in Pedagogy. *Research in Pedagogy, 13*(1), 208-218.

Manjunatha, N. (2019). Descriptive Research. *Journal of Emerging Technologies and Innovative Research, 6*(6), 863-867.

McGrath, R. G., Ferrier, W. J., & Mendelow, A. L. (2004). Real options as engines of choice and heterogeneity. *Academy of Management Review, 29,* 86-101.

Meena, S. (2023). Product Positioning Strategies and Purchase Decision. *International Journal of Current Science, 13*(1), 782-786.

Mungai, B. W., & Bula, H. O. (2018). Turnaround Strategies and Performance of Kenya Airways. *The University Journal, 1(*2), 1-16.

Musengi, A. K. (2021). *The Effect of Business Continuity Planning on Resilience of Cargo Airlines in Kenya.* Unpublished master's research project. United States International University-Africa.

Nair, R. K., Ganatra, V., Kaur, K., Kee, D. M. H., Khoo, W. T., Khor, S. Y., Rao, K., & Mahajan, J. (2021). Analysis of Strategies Implemented by AirAsia to Cater to the Covid-19 Effects. *Journal of the Community Development in Asia, 4*(3), 49-67.

Nkomo, L., & Kalisz, D. (2023). Establishing organizational resilience through developing a strategic framework for digital transformation. *Digital Transformation and Society, 2*(4), 403-426. https://doi.org/10.1108/DTS-11-2022-0059

Noori, J., Tidd, J., & Arasti, M. (2012). Dynamic Capability and Diversification. *From Knowledge Management to Strategic Competence, 19,* 3-20.

Nteka, N. (2021). Crises Analysis and Management. *Entrepreneurship, 9*(1), 64-77.

Nyamoh, G. S. (2022). *Strategies Pursued by Kenya Airways Corporation During Covid-19 Pandemic Period.* Unpublished master's thesis. University of Nairobi.

Ochola, F. O., & Were, S. (2018). Influence Of Operational Strategies on Performance of the Air Cargo Handling Projects at Jomo Kenyatta International Airport – Nairobi, Kenya. *International Journal of Novel Research in Engineering and Science, 5*(1), 1-18.

Odhiambo, G. A. (2016). *Positioning Strategies and Competitive Advantage of Local Airlines in Kenya*. Unpublished master's thesis. University of Nairobi.

Odonkor, T. N., Urefe, O., Agu, E. E., & Obeng, S. (2024). Building resilience in small businesses through effective relationship management and stakeholder engagement. *International Journal of Management & Entrepreneurship Research, 6*(8), 2507-2532.

Olaganathan, R. (2021). Impact of COVID-19 on Airline Industry and Strategic Plan for its Recovery with Special Reference to Data Analytics Technology. *Global Journal of Engineering and Technology Advances*, 7(1), 33-56.

Olawoyin, I. (2024). Adapting to Altitude: Financial Strategies for Airline Resilience. *Iconic Research and Engineering Journals, 8*(6), 30-31.

Oloba, B. L., Olola, T. M., & Ijiga, A. C. (2024). Powering reputation: Employee communication as the key to boosting resilience and growth in the U.S. Service Industry. *World Journal of Advanced Research and Reviews, 23*(3), 2020–2040.

Özbek, G. B., & Araci, H. (2025). Financial Resilience of Airlines During the Covid-19 Period. *Manisa Celal Bayar University Journal of Social Sciences, 23*(1), 331-341.

Pearson, C. M., & Clair, J. A. (1998). Reframing crisis management. *Academy of Management Review, 23*(1), 59–76. https://doi.org/10.5465/amr.1998.192960

Paethrangsi, N. (2021). Maximizing revenue in the airline industry through air cargo operations. *E3S Web of Conferences, 244,* 2-10.

Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. New York: Harper & Row.

Penrose, E. (1959). *The Theory of the Growth of the Firm*. Oxford: Basil Blackwell.

Permadi, H, F., Nasution, A., & Khairoh, Y. (2021). Porter's Generic Strategies on Food and Beverage Industry in Indonesia during COVID-19 Pandemic: Case study approach. In *4th European International Conference on Industrial Engineering and Operations Management*, https://doi.org/10.46254/EU04.20210446.

Prayag, G., Jiang, Y., Chowdhury, M., Hossain, M. I., & Akter, N. (2024). Building Dynamic Capabilities and Organizational Resilience in Tourism Firms During COVID-19: A Staged Approach. *Journal of Travel Research, 63*(3), 713-740.

Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences, 6*(2), 1-5.

Rayinah, S., & Chalid, D. A. (2020). Financial Analysis of Airlines as Air Cargo Terminal Operator: Case of Garuda Indonesia. *KnE Social Sciences, 4*(6), 642–658.

Saad, M. H., Hagelaar, G., Van Der Velde, G., & Omta, S. W. F. (2021). Conceptualization of SMEs' business resilience: A systematic literature review. *Cogent Business & Management, 8*(1), https://doi.org/10.1080/23311975.2021.1938347

Salman, M. (2023). Challenges Faced by Air Cargo Services in India. *Journal of Emerging Technologies and Innovative Research, 10*(5), 363-369.

Santos, L. J., Oliveira, A. V. M., & Aldrighi, D. M. (2021). Testing the differentiated impact of the COVID-19 pandemic on air travel demand considering social inclusion. *Journal of Air Transport Management, 94*(1), 1-29.

Saqib, N. (2021). Positioning – A literature review. *PSU Research Review, 5*(2), 141-169.

Sari, D. N., Ramadhani, N. H., & Prameswari, A. P. (2020). Airline strategy during Covid-19 outbreak: A case study from Air Asia. *Sebelas Maret Business Review, 6*(1), 34-40.

Nteka, N. (2021). Crises Analysis and Management. *Entrepreneurship, 9*(1), 64-77.

Sede, T. A., Eketu, C. A., & Alagah, A. D. (2021). Knowledge Utilisation and Organizational Resilience of Pre-Shipment Inspection Companies in South-South, Nigeria. *International Journal of Research Publication and Reviews Journal, 4*(2), 56-64.

Serafeim, T. (2024). *Enhancing Organizational Resilience in the Air Transport Industry Through the Adoption of Emerging Technologies: A Case Study of the Middle Eastern Airlines.* Unpublished master's thesis.

Serfontein, E., & Govender, K. K. (2021). The relationship between resilience and organizational control systems in the South African aviation industry. *Journal of Transport and Supply Chain Management, 15,* 2-11

Simiyu, A. J., & Makhamara, F. (2020). Strategic Positioning and Competitive Advantage at G4S Kenya. *International Journal of Innovative Social Sciences & Humanities Research 8*(4), 1-19.

Sobieralski, J. B. (2024). Global Airline Employment and the COVID-19 Pandemic: Impacts, Comparisons, and Implications for the Future. *Advances in Airline Economics, 11*, 341-368.

Somow, A. I. (2022). *Effect of Risk Management Strategies on Performance of Air Freight Firms in Kenya.* Unpublished master's thesis. United States International University – Africa.

Su, J., Wu, H., Tsui, W. H., Fu, X., & Lei, Z. (2023). Aviation resilience during the COVID-19 pandemic: A case study of the European aviation market. *Transportation Research Part, 177,* 2-13.

Suk, M., & Kim, W. (2021). COVID-19 and the airline industry: crisis management and resilience. *Tourism Review, 76*(4), 984-998.

Taber, K. S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research Science Education, 48,* 1273–1296.

Tallott, M., & Hilliard, R. (2016). Developing dynamic capabilities for learning and internationalization: A case study of diversification in an SME. *Baltic Journal of Management*, *11*(3), 328-347.

Tanrıverdi, G., Ecer, F., & Durak, M. Ş. (2022). Exploring factors affecting airport selection during the COVID-19 pandemic from air cargo carriers' perspective through the triangular fuzzy Dombi-Bonferroni BWM methodology. *Journal of Air Transport Management, 105*(3), 2-15.

Tanzania Civil Aviation Authority (2021). *Annual Report 2020/2021*. Dar es Salaam. TCAA.

Tavakol, M., & Dennick, R. (2011). Making Sense of Cronbach's Alpha. *International Journal of Medical Education, 2*, 53-55.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal, 18*(7), 509-533.

Thomas, D., & Zubkov, P. (2023). Quantitative research designs. *Quantitative research for practical theology,* 103-114.

The Impact of Diversification on Crisis and Disaster Management Effectiveness in the Aviation Industry: Evidence from the United Arab Emirates

Vinod, B. (2022). Airline revenue planning and the COVID-19 pandemic. *Journal of Tourism Futures*, *8*(2), 245-253.

Vukajlović, V., Simeunović, I., Beraha, I., & Brzaković, M. (2019). Importance of Information in Crisis Management – Statistical Analysis. *Industrija, 47*(3), 37-43.

Wali, Z., Muraguri, C., & Wachana, P. (2023). Strategic Positioning and the Performance of E-Businesses in Kenya. *The University Journal, 5*(3), 199-212.

Wan, W. P., Hoskisson, R. E., Short, J. C., & Yiu, D. W. (2011). Resource-Based Theory and Corporate Diversification: Accomplishments and Opportunities. *Journal of Management, 37*(5), 1335-1368.

Wang, Z., Upadhyay, A., & Kumar, A (2023). A real options approach to growth opportunities and resilience aftermath of the COVID-19 pandemic. *Journal of Modelling in Management, 18*(4), 1124-1152.

Williamson, O. E. (1979). Transaction-Cost Economics: The Governance of Contractual Relations. *Journal of Law and Economics, 22*(2), 233-261.

Wisetsri, W. (2021). Developing the socio-economic model to recover the loss of the aviation industry. *Journal of Management Information and Decision Sciences, 24*(1), 1-10.

Xu, X., Jiang, X., He, C., Wang, J., & An, Q. (2023). Air Cargo Network Resilience: Concepts, Influencing Factors and Enhancement Paths. *IEEE Access, 23*, 15840-15855.

Yawson, R. M., & Paros, A. K. B. (2023). Systems Perspective of the Use of the Balanced Scorecard for Organization Development and Change. Sage Open, 13(4). https://doi.org/10.1177/21582440231218064

Yong, H. A., & Laing, E. (2021). Stock market reaction to COVID-19: Evidence from U.S. Firms' International exposure. *International Review of Financial Analysis, 76*, 2-13.

Zahraee, S. M., Shiwakoti, N., Jiang, H., Qi, Z., He, Y., Guo, T., & Li, Y. (2023). A study on airlines' responses and customer satisfaction during the COVID-19 pandemic. *International Journal of Transportation Science and Technology, 12*(4), 1017-1037.

APPENDICES

APPENDIX 1: LIST OF CARGO AIRLINES OPERATING IN JKIA

	Carrier	No.
Cargo Carriers at JKIA	Kenya Airways Cargo	1
	Air France/KLM	2
	Lufthansa Cargo	3
	Emirate Sky cargo	4
	Cargolux	5
	Ethiopian airlines	6
	Martin Air	7
	Saudia Airlines	8
	Etihad Crystal Cargo	9
	Egypt Air	10
	Singapore Airlines	11
	Qatar Airlines	12
	Turkish Cargo	13
	MK Airline	14
	Swiss World Cargo	15
Cargo Belly Carriers	South African Airways	16
	British Airways	17
	Air Rwanda	18
Hub Airlines	Kenya Airways (Airline)	19
	Astral Aviation	20
	Fly 540	21
	Africa Express Airlines	22
	Blue Bird Aviation	23
	Marshland Airline	24
	Juba Airways	25

APPENDIX 2: QUESTIONNAIRE

Section A: Background Information

1. Please select the appropriate title for your position in the company

   C- Suite level Director/ Managing director ( )

   Senior Leader ( )

   Senior Level Manager ( )

   Middle-level manager ( )

   Operations Manager ( )

   Other (*Specify*) ……

2. How long have you worked in your position in this organization?

   Less than 5years ( )

   6 to 10years ( )

   11 to 15years ( )

   Over 15years ( )

3. What is the age of your firm?

   Less than 5 years ( )

   5-10 years ( )

   10-15 years ( )

   15-20 years ( )

   20 years and above ( )

4. What is your firm size?

   Large Enterprise (500 and above employees) ( )

   Medium-sized enterprises (51-500 employees) ( )

   Small-sized enterprises (1-50 employees) ( )

5. Cargo Airline Type:

   Cargo only ( )

   Belly Carrier ( )

   Both ( )

6. Geographic Focus:

   Domestic Operations ( )

   International Operations ( )

   Both ( )

Section B: Crisis response strategies

The following statements refer to the cost reduction strategies adopted by cargo airline companies during the pandemic. Please indicate your level of agreement to these statements where 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, and 5-strongly agree

Items		**1**	**2**	**3**	**4**	**5**
Cost leadership						
1	The organization streamlined its operations in supply chain management and logistics to provide lower prices for its customers during the pandemic					
2	The organization secured materials from low-cost suppliers to offer lower prices to its clients during the pandemic					
3	The organization made significant efforts to standardize products or services that minimized variations and reduce costs					
Differentiation		**1**	**2**	**3**	**4**	**5**
1	The organization adopted specific delivery of products from its traditional cargo to exploit demand during the pandemic					
2	The organization introduced new pricing options for specific market segments during the pandemic					
3	The organization provided exceptional service to enhance overall customer experience, including personalized services during the pandemic					
Focus		**1**	**2**	**3**	**4**	**5**
1	The organization adopted new packages and services for their non-traditional market segments					
2	The organization introduced new routes and services to specific market segments during the pandemic					
3	The organization consolidated some of its international routes to domestic hubs to exploit the local market demand during the pandemic					

Cost reduction Items		**1**	**2**	**3**	**4**	**5**
Financial perspective						
1	The organization retired some of its fleets to reduce associated costs of maintenance					
2	The organization took measures to reduce costs associated with its staff/employees during the pandemic					
3	The organization adopted cost efficient methods including automation to reduce its overhead costs					
Customer perspective						
1	There was a reduced budgetary allocation towards the marketing activities during the pandemic					
2	The organization narrowed its focus to its core and niche market to reduce costs associated with expanding its market share					
3	The organization reduced its expenses on customer loyalty					

	programs to reduce its overall costs					
Internal business processes						
1	The organization adopted more efficient and effective use of its spaces in an effort to reduce its overall costs					
2	The organization outsourced some of its operations in an effort to lessen its maintenance costs					
3	The organization retired some of its fleet in an effort to reduce its overhead costs					
Learning and growth						
1	The organization reduced its budget allocation towards training and development to lessen its costs					
2	The organization promoted and supported innovativeness during the pandemic that could reduce its overall costs					
3	The organization adapted its system to capture and share knowledge in an aim to reduce its costs for future disruptions					
Diversification Items		**1**	**2**	**3**	**4**	**5**
Reconfiguring						
1	The organization adopted changes to its communication channels during the pandemic					
2	The organization reconfigured its advertising and messaging content to attract new market segments					
3	The organization deployed its existing knowledge management to tap into new market segments					
Creating		**1**	**2**	**3**	**4**	**5**
1	The organization was able to generate new knowledge externally to the company by combining its own and its partners knowledge					
2	The organization was able modify target markets by diversification into new routes and cultures					
3	The organization was able to modify its target markets by promoting a culture of experimentation and innovation					
Developing		**1**	**2**	**3**	**4**	**5**
1	The organization was actively engaged in building relationships within the cargo airline sector during the pandemic					
2	The organization was actively engaged in building stronger linkages to the government during the pandemic					
3	The organization was actively engaged in building relationships with the wider community during the pandemic					
Assimilating		**1**	**2**	**3**	**4**	**5**
1	The organization has been involved in exploring for new knowledge					
2	The organization has processes in place to assess, interpret, and comprehend external information					
3	The organization accurately sensed and recognized resources that are useful from its partnerships					

Section E: Organizational Resilience

The following statements refer to the organizational resilience of cargo airline companies after the pandemic. Please indicate your level of agreement to these statements where 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, and 5-strongly agree.

Items		**1**	**2**	**3**	**4**	**5**
Functional resilience						
1	The organization was able to be flexible in its response to adversities faced during the onset of the pandemic					
2	The organization was able to undertake efficient execution of routines at the individual and organizational levels					
3	The organization was able to respond to specific functional adversities faced during the pandemic					
Operational resilience						
1	The organization's members possess a collective meaning and understanding of disruptive events/situations					
2	The organization was able to activate new relationships and networks in the face of serious disruption					
3	The organization was able to be innovative and coordinate in response to adversity faced during the pandemic					
Strategic resilience						
1	The organization's top management identified and interpreted adversities facing the company during the pandemic					
2	The organization leveraged its resources to respond creatively to adversities faced during the pandemic					
3	The top management's allocation, deployment and employment of organizational resources reshaped the organizational strategies during the pandemic					

Thank you for participating

APPENDIX 3: ETHICAL APPROVAL

Strathmore UNIVERSITY

18th February 2025

Ms Wachira Hazel,
hazelwachira@gmail.com

Dear Ms Wachira,

RE: Crisis Response Strategies and Organizational Resilience of Cargo Airlines in Kenya

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** proposal. Your application reference number is **SU-ISERC2565/25.** The approval period is from **18th February 2025 to 17th February 2026.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
v. Clearance for the export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

APPENDIX 4: RESEARCH LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **109634**

Date of Issue: **27/February/2025**

RESEARCH LICENSE

This is to Certify that Miss.. Hazel Wangechi Wachira of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: CRISIS RESPONSE STRATEGIES AND ORGANIZATIONAL RESILIENCE OF CARGO AIRLINES IN KENYA for the period ending : 27/February/2026.

License No: **NACOSTI/P/25/416369**

109634

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions