OMNI-CHANNEL DISTRIBUTION ON INTER-SELLER COORDINATION IN GAINING COMPETITIVE ADVANTAGE AMONG SECOND-HAND CLOTHING SELLERS IN UGANDA

BY

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A DISSERTATION SUBMITTED TO THE DIRECTORATE OF RESEARCH AND GRADUATE TRAINING IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF A MASTER OF SCIENCE IN PROCUREMENT AND SUPPLYCHAIN MANAGEMENT OF KYAMBOGO UNIVERSITY

NOVEMBER, 2025

DECLARATION

I Ayeyo Mercy hereby declare that this dissertation titled "**Omni-Channel Distribution on Inter-Seller Coordination in Gaining Competitive Advantage Among Second-Hand Clothing Sellers in Uganda**" is my original work and has not been submitted or presented to any institution of higher learning for any degree award.

Signed…… Date……

APPROVAL

This is to certify that this dissertation, titled," **Omni-Channel Distribution on Inter-Seller Coordination in Gaining Competitive Advantage Among Second-Hand Clothing Sellers** in Uganda" has been submitted to the academic Board of examiners with our approval as appointed University Supervisors

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DR. FRANCIS SSENNOGA

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ASSOC. PROF. HENRY MUTEBI

Second Supervisor

DEDICATION

This dissertation is dedicated to my parents, beloved mother, Abbo Agnes whose unwavering support, love, and encouragement have been a source of strength throughout my academic journey. I also dedicate this work to my brothers, Grace, Joshua, and Shammah, whose guidance and inspiration have continually motivated me to strive for excellence. To my husband, Okitwi Pius, I extend my deepest gratitude for his patience, understanding, and constant encouragement, which has made this achievement possible.

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LIST OF ABBREVIATIONS

CSR	Corporate social responsibility
RBV	Resource based view
TCT	Transaction Cost Theory
SHC	Second Hand clothing
UNDP	United Nations Development Programme
EPRC	Economic Policy Research Centre
USD	United states Dollar
UNCTAD	United Nations Conference on Trade and Development
ITU	International Telecommunication Union
IT	Information Technology
US	United states
SMEs	Small and medium enterprises
E	Margin of error
N	Total population size
$P(t)$	Population at time t
P_0	Initial population
r	Growth rate
t	Time in years

ABSTRACT

This study examined the mediating role of Inter-Seller Coordination in the relationship between Omni-Channel Distribution and Competitive Advantage among second-hand clothing sellers in Uganda. The specific objectives were to examine the relationships between omni-channel distribution and competitive advantage, between omni-channel distribution and inter-seller coordination, between inter-seller coordination and competitive advantage, and to assess the mediating role of inter-seller coordination in this relationship. The study adopted a cross-sectional quantitative design, and data were collected from 350 respondents using self-administered questionnaires. Analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings revealed that Omni-Channel Distribution significantly enhanced Inter-Seller Coordination ($\beta = 0.250$, $p = 0.000$) and Competitive Advantage ($\beta = 0.208$, $p = 0.000$). However, Inter-Seller Coordination had a negative but significant effect on Competitive Advantage ($\beta = -0.181$, $p = 0.001$). This result confirms that while omni-channel distribution fosters coordination and market accessibility, excessive coordination may reduce differentiation and responsiveness among traders. The mediation results indicate that Inter-Seller Coordination partially mediates the relationship between omni-channel distribution and competitive advantage, suggesting that coordination influences the strength, but not the direction, of this relationship. The study concludes that omni-channel distribution is a vital strategic resource that enhances competitiveness through improved customer engagement, accessibility, and service integration. However, informal traders must maintain a balance between collaboration and market uniqueness to remain competitive. It is recommended that sellers integrate both online and physical distribution channels while strengthening branding, product quality, and customer service. Policymakers and trade associations should support digital literacy, provide affordable financing, and promote technological innovation to enhance the competitiveness and resilience of Uganda's second-hand clothing sector.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This section contained the study's background, problem statement, purpose of conducting research, research questions, the significance of the study, scope of the research and conceptual framework.

1.2 Background of the study

In today's rapidly changing and globalized business environment, firms are constantly seeking new ways to outperform their competitors and maintain long-term success. At the heart of this effort lies the concept of competitive advantage, which refers to the unique attributes or conditions that enable an organization to deliver greater value to its customers or operate more efficiently than its rivals (Porter, 1985). Competitive advantage not only enhances a firm's short-term profitability but also ensures its sustainability in a competitive market. Michael Porter's framework identifies cost leadership, differentiation, and focus strategies as the key pathways through which firms can achieve and sustain superior performance (Porter, 1985).

The Resource-Based View (RBV) further emphasizes that the foundation of sustainable competitive advantage lies in an organization's internal resources that are valuable, rare, imperfectly imitable, and non-substitutable (Barney, 1991). In Uganda's second-hand clothing (SHC) sector, such resources can include strong supplier relationships, specialized knowledge in identifying high-quality bales, and customer trust built over years of personalized service. For example, a trader in Owino market who consistently sources premium bales from reliable importers and maintains strong customer rapport enjoys a distinct advantage over competitors who lack these capabilities.

However, resources alone are insufficient in the face of constant market and environmental change. The Dynamic Capabilities Theory extends the RBV by focusing on a firm's ability to adapt and reconfigure its resources to meet evolving market demands (Teece, 2020). This flexibility is particularly relevant to SHC traders who must frequently adjust to shifts in consumer preferences, currency fluctuations, or supply disruptions. For instance, traders who quickly adapted to selling clothes through WhatsApp, Facebook Marketplace, and TikTok during the COVID-19 lockdowns were able to maintain sales even when physical markets were closed. Such adaptability demonstrates dynamic capability in action—using available resources innovatively to sustain competitiveness.

Technological innovation has emerged as another vital source of competitive advantage. Across industries, firms that leverage digital tools such as mobile payments, social media marketing, and e-commerce platforms are able to reach wider audiences and operate more efficiently (Choi et al., 2021). In Uganda's SHC sector, digital transformation has begun to reshape how traders interact with customers. Sellers who promote their products online, receive payments via mobile money, and deliver through boda-boda courier networks not only reduce transaction time but also access markets beyond their physical stalls.

Beyond technology, contemporary scholars also highlight that external factors such as sustainability practices and corporate social responsibility (CSR) contribute significantly to long-term competitiveness (Santos et al., 2020). Similarly, in the SHC trade, sustainability manifests through the reuse and recycling of clothing, which supports environmental conservation while meeting consumer demand for affordable apparel. Traders who emphasize the value of reusing clothes are thus aligning with the growing global preference for sustainable consumption, turning environmental responsibility into a marketing advantage.

Finally, supply chain management plays a crucial role in sustaining competitive advantage. Efficient supply chains enhance cost leadership and ensure operational flexibility (Christopher, 2021). For SHC traders, this involves timely coordination with importers, managing logistics from Mombasa to Kampala, and collaborating with peers to share transport costs or warehouse space. The COVID-19 pandemic further underscored the importance of resilience in supply chains, as traders with diversified distribution channels and reliable supply links were better able to recover from import delays and lockdown restrictions (Daugherty et al., 2022).

In summary, competitive advantage within Uganda's second-hand clothing sector arises not only from access to scarce resources or cost efficiency but also from traders' ability to adapt, coordinate, and innovate. Sellers who integrate digital marketing, build strong supplier networks, and embrace sustainability are better positioned to thrive in an increasingly competitive and unpredictable market environment.

1.2.1 Historical background

Globally, the concept of competitive advantage gained widespread attention in the 1980s, largely due to the influential work of Michael E. Porter. In his seminal books Competitive Strategy (1980) and Competitive Advantage (1985), Porter introduced key frameworks such as the Five Forces Model and Generic Strategies. He viewed competitive strategy as a firm's deliberate effort to position itself effectively within a competitive environment. According to Porter (1985), a company's long-term success depends on its ability to establish a strong and defensible position within its industry, which enables it to outperform rivals. He proposed three main approaches for achieving this: cost leadership, differentiation, and focus. Porter argued that firms pursuing any of these strategies effectively could attain substantial and sustainable competitive advantage. The essence of competitive strategy,

therefore, lies in understanding and anticipating market dynamics especially competitor behaviour to create an imperfectly competitive market where a firm's offerings are difficult to imitate (Barney, 1986).

During the 1990s, attention gradually shifted from industry positioning to the internal resources and capabilities that drive firm performance. This new perspective was articulated through the Resource-Based View (RBV), advanced by Barney (1991). RBV posits that sustainable competitive advantage arises from resources that are valuable, rare, imperfectly imitable, and non-substitutable. It emphasizes the distinctiveness of a firm's internal strengths such as knowledge, skills, and organizational culture as key determinants of long-term success. Kay (1993) further highlighted that firms gain advantage through unique capabilities that competitors lack and that remain relatively stable over time. Similarly, Peteraf (1993) described competitive advantage as the firm's ability to earn returns above the industry average. Later, Teece (1997) expanded on RBV through the Dynamic Capabilities Theory, which focuses on a firm's ability to continuously adapt, reconfigure, and renew its competencies in response to environmental changes.

In the 2000s, the understanding of competitive advantage continued to evolve. Besanko et al. (2000) defined it as the firm's ability to achieve higher economic profits than the industry average, while Saloner et al. (2001) emphasized the value perceived by customers in a firm's products compared to competitors. Rumelt (2003) linked the concept directly to value creation, suggesting that competitive advantage exists when a firm's revenues consistently exceed its costs. Building on these theoretical developments, the present study explores how competitive advantage principles and strategies influence business performance particularly within the dynamic, informal, and highly competitive second-hand clothing market in Uganda.

1.2.2 Theoretical Background

A theory is a body of knowledge that has been generated through to increase our understanding of the concepts (Kivunja, 2018). A good theory is one that informs the practice and a practice must be explained by a theory (Boone et al., 2010), effective theories not only explain existing phenomena but also inform practical decision-making.

This study is anchored in the Transaction Cost Theory (TCT), initially proposed by Ronald Coase (1937) and later refined by Oliver Williamson (1975, 1985). The theory examines the costs incurred when conducting economic exchanges and how these influence the structure and governance of firms. Coase (1937) argued that firms exist not only for production efficiency but also to minimize transaction costs such as those related to searching for partners, negotiating contracts, monitoring performance, and enforcing agreements. When these market-related costs are high, organizing activities internally within a firm becomes more cost-effective.

Williamson expanded the theory by introducing key ideas such as bounded rationality, opportunism, and asset specificity. Bounded rationality suggests that individuals have limited information-processing capabilities and cannot foresee all potential contingencies (Holmstrom, 1991). Opportunism reflects the tendency of economic actors to act in self-interest, sometimes withholding information or behaving deceitfully during exchanges (Williamson, 1975). Asset specificity refers to investments tailored to particular transactions, which lose value if redeployed elsewhere (Williamson, 1985). Together, these assumptions explain why firms design specific governance structures to manage transaction risks and ensure efficiency.

In the context of this study, Transaction Cost Theory provides a useful lens for examining how second-hand clothing sellers in Uganda manage costs associated with coordination,

trust, and information sharing factors that directly influence their ability to maintain competitiveness in a dynamic marketplace.

TCT thus explains why such sellers engage in relationship marketing, reputation-building, and customer retention tactics to safeguard their investments and reduce dependency. As such, the theory provides a framework for understanding how informal sector businesses achieve competitive advantage not only by minimizing transaction costs, but also by effectively managing asset specificity. This is particularly important in settings like Uganda, where informal markets are prevalent and legal or institutional support is limited. Therefore, Transaction Cost Theory fits this study well because it provides insights into how second-hand clothing sellers navigate uncertainty and achieve performance outcomes through strategic cost reduction and relationship governance.

1.2.3 Conceptual Background

The guiding concepts in this study were Omni-channel distribution as the independent variable and competitive advantage as the dependent variable. These concepts have been explored by various scholars in relation to retail and formal sector dynamics however; the informal sector has not been researched about.

Competitive advantage refers to a firm's ability to outperform its competitors by providing greater value, offering lower costs, or establishing a unique market position (Porter, 1985). Factors contributing to competitive advantage include price, product quality, order fulfilment rates, and delivery efficiency (Innis & LaLonde, 1994). The 2000s have a different view where scholars like Li et al. (2006) noted that competitive advantage is shaped by strategic decisions that enable firms to create and maintain a strong market position. From the Resource-Based View (RBV), competitive advantage reflects a firm's internal capabilities and their role in driving business performance (Raduan et al., 2009).

Competitive advantage is a competitive strategy that is difficult for competitors to imitate, namely making products that truly have regional unique values and are carried out sustainably, so that competing products do not have the opportunity to attract consumers' attention (R.J., 2020) with measurement like innovation, quality, price, delivery dependability and time to market (R.J., 2020).

Within an Omni-channel context, competitive advantage may be realized through improvements in revenue, profitability, customer satisfaction, and market share (Saghiri et al., 2021). Individual second-hand clothes sellers often attain competitive advantage through strategic pricing, location, quality product selection, and personalized customer service. Operating in high-footfall markets like Owino in Kampala, they attract buyers by offering affordable clothing choices. Their strength lies in adaptability, quick inventory turnover, and strong customer relationships, often built through informal credit and communication via platforms like WhatsApp (Namatovu et al., 2012).

Larger companies or importers in Uganda gain competitive advantage through economies of scale, formal logistics, and direct access to international supply chains. They benefit from structured inventory systems, brand recognition, and greater capital, enabling broader market reach and operational efficiency (Bbaale, 2019). While both actors seek competitive advantage, individual sellers rely on agility and personal connection, whereas companies focus on scale and systemization. These differences reflect broader patterns in Uganda's dual economy, where formal and informal strategies coexist and compete (Kuteesa et al., 2010).

Omni-channel distribution is an advanced form of supply chain management that connects multiple retail channels to offer a seamless and unified customer experience (Verhoef et al., 2022). Unlike traditional multi-channel systems where each channel operates independently,

the Omni-channel model promotes real-time integration of inventory systems, customer engagement platforms, and order fulfilment processes (Jara et al., 2018). According to Sealey (2014), the Omni-channel approach involves the fusion of physical and digital channels to enhance customer experience and business efficiency. Implementing this strategy requires centralized and integrated information systems that can manage operations across all customer touch-points. While Omni-channel systems are increasingly prevalent in formal retail sectors, their adoption in informal markets such as second-hand clothing remains limited.

Inter-seller Coordination is the process by which independent sellers or businesses collaborate through information sharing, trust-building, and joint problem-solving to optimize operations, manage risks, and enhance market responsiveness Cao & Zhang, (2020) Liverpool-Tasie et al., (2024). Inter seller coordination refers to the collaborative practices and mechanisms through which sellers in the same market align activities such as information sharing, joint planning, and synchronized operations to reduce inefficiencies and enhance competitiveness (Simatupang, 2002). Existing research shows inter-seller coordination improves efficiency, minimizes destructive competition, and strengthens collective market power through resource pooling, shared logistics, and standard-setting (Anderson, 1990). Studies also emphasize that trust, commitment, and mutual dependency are central enablers of successful coordination (Morgan, 1994).

However, inter-seller coordination plays out in informal or small-scale economies, such as second-hand clothing markets in developing countries, and the extent to which emerging practices like digital platforms and omni-channel distribution shape coordination (Kumar, 2014). Emphasis should be put in how inter-seller coordination influences competitive advantage in fragmented markets, the mechanisms through which it balances cooperation

and competition, and how contextual factors such as resource scarcity, regulation, and customer dynamics determine its outcomes (Simatupang, 2005).

Therefore, this study adopts the definitions and conceptualizations of Omni-channel distribution (Ailwadi,2017), Inter seller coordination (Liverpool-Tasie et al.,2024). Whereas competitive advantage (Li et al, 2006) to explore the role of Omni-channel strategies on inter seller coordination on gaining competitive advantage among second-hand clothing sellers in Uganda.

1.2.4 Contextual background

The second-hand clothing (SHC) trade forms a lifeline for Uganda's informal economy, sustaining millions of livelihoods and offering affordable apparel to low- and middle-income earners. In bustling markets such as Owino, Kalerwe, and Nakasero, traders mainly women and youth sort, price, and sell imported bales of used garments daily, generating income that supports entire households (UNDP, 2023). The informal sector employs over 80 percent of Uganda's labour force, with SHC businesses contributing significantly to household incomes and poverty reduction (Economic Policy Research Centre [EPRC], 2024).

These sellers operate under challenging conditions: limited working capital, lack of storage space, and dependence on middlemen for bale purchases. For example, a trader in Owino market may need to borrow short-term capital to secure a "first-grade" bale, hoping that at least half the clothes will be resalable at a profit. The unpredictability of bale quality often affects competitiveness and pricing strategies (Kafeero, 2023).

Despite these challenges, SHC trading continues to thrive due to its affordability and accessibility. Imports of used clothing grew from USD 61 million in 2013 to USD 106 million by 2022 (EPRC, 2023). Yet the sector faces increasing pressure from government

efforts to promote local textile production and from disruptions in global logistics. Traders must therefore adapt to remain viable.

An emerging trend is the gradual embrace of omni-channel distribution integrating physical stalls with digital platforms such as Facebook Marketplace, WhatsApp Business, and Jumia Deals. For instance, some Owino traders now post daily pictures of new stock online, allowing remote customers in Gulu or Mbarara to place orders via mobile money and receive delivery through boda-boda or bus courier services. Partnerships like UNDP & Jumia's Digital Inclusion Program (2023) have enabled informal vendors to create digital storefronts, improving visibility and sales. However, this transformation demands investment in smartphones, internet data, and digital-marketing skills resources that are often costly and non-transferable, thus increasing transaction risks (Emerald Insight, 2022).

Unlike large fashion retailers with structured supply chains, SHC sellers depend on informal coordination with peers to share shipment costs, identify trustworthy suppliers, or access new bale sources. Their competitive advantage often arises from personal networks, customer loyalty, and market experience rather than formal branding or economies of scale. Therefore, understanding how omni-channel strategies interact with inter-seller coordination is vital for building competitiveness within Uganda's dynamic informal markets.

1.3 Problem Statement

The second-hand clothing (SHC) trade has become a lifeline for many Ugandans, providing affordable clothing to low-income consumers and income for thousands of informal traders. Despite its importance, the sector continues to face serious challenges that threaten its sustainability. Rising import duties, unstable exchange rates, and unpredictable bale quality have steadily eroded profit margins and business confidence (EPRC, 2023). For instance, a 100-kilogram bale that costed about UGX 800,000 in 2019 now costs roughly UGX 1.4

million, while a growing portion of each bale is unsellable due to declining global donation quality (Nakamya, 2021).

The COVID-19 lockdowns further exposed these weaknesses where traders who depended solely on physical stalls lost nearly 40 percent of their sales, while those who marketed their goods through online platforms like Facebook, TikTok, Instagram and WhatsApp managed to keep some customers (UBOS, 2022). Although omni-channel retailing has strengthened competitiveness in formal markets (World Bank, 2023), adoption in the informal sector like among Uganda's SHC traders remains low. This study therefore explores how inter-seller coordination influences the relationship between omni-channel distribution and competitive advantage within Uganda's informal SHC sector.

1.4 Objectives of the Study

1.4.1 Main Objective

The primary aim of this study was to investigate how omni-channel distribution influences inter-seller coordination and contributes to competitive advantage among second-hand clothing traders operating within Uganda's informal sector.

1.4.2 Specific Objectives

The study was guided by the following specific objectives:

i. To analyze the relationship between omni-channel distribution and competitive advantage among second-hand clothing sellers in Uganda.
ii. To determine how omni-channel distribution relates to inter-seller coordination among second-hand clothing sellers in Uganda.
iii. To examine the relationship between inter-seller coordination and competitive advantage among second-hand clothing sellers in Uganda.

iv. To assess the mediating effect of inter-seller coordination on the relationship between omni-channel distribution and competitive advantage among second-hand clothing sellers in Uganda.

1.4.3 Research Questions

The study sought to address the following research questions:

i. How does omni-channel distribution relate to competitive advantage among second-hand clothing sellers in Uganda?

ii. What is the nature of the relationship between omni-channel distribution and inter-seller coordination among second-hand clothing sellers in Uganda?

iii. How does inter-seller coordination influence competitive advantage among second-hand clothing sellers in Uganda?

iv. To what extent does inter-seller coordination mediate the relationship between omni-channel distribution and competitive advantage within Uganda's informal sector?

1.5 Scope of the Study

1.5.1 Content Scope

This research focused on examining how omni-channel distribution enhances inter-seller coordination and contributes to competitive advantage among second-hand clothing traders in Uganda's informal economy. The study explored various distribution strategies used by sellers such as physical outlets, online marketplaces, and social media platforms and how the integration of these channels improves business performance and competitiveness.

1.5.2 Geographical Scope

The study concentrated on second-hand clothing sellers operating in Uganda, particularly within urban centers where these activities are most prominent. The focus areas included Kampala, Wakiso, and Mukono districts, which serve as key commercial hubs for second-hand clothing trade due to their large customer bases and dense market networks.

1.5.3 Time Scope

The research was conducted over a period of nine months, from December 2024 to August 2025. This timeframe provided sufficient duration for data collection, analysis, and completion of the study objectives.

1.6 Significance of the study

i. The study contributes to the body of knowledge on competitive advantage by highlighting the importance of omni-channel distribution and inter-seller coordination, with specific emphasis on the role of asset specificity in strengthening competitive positioning.

ii. The findings may guide policy makers in designing effective frameworks and regulations that support informal sector businesses especially second-hand clothing traders in enhancing their competitiveness and sustainability.

iii. For practitioners within the informal sector, this study bridges knowledge gaps by identifying key factors that influence competitive advantage and outlining strategies that can improve business performance and collaboration.

iv. Development partners and agencies may use the results of this research to formulate targeted development programs and interventions aimed at supporting informal traders and promoting inclusive economic growth

1.7 Conceptual Framework

A conceptual framework portrays the hypothesized relationship among the variables (Bhattacherjee, 2012). In this research, the framework illustrates the hypothesized interactions among omni-channel distribution**,** inter-seller coordination**,** and competitive advantage. It assumes that omni-channel distribution directly influences both inter-seller coordination and competitive advantage, while inter-seller coordination also acts as a mediating factor that strengthens the relationship between omni-channel distribution and competitive advantage.

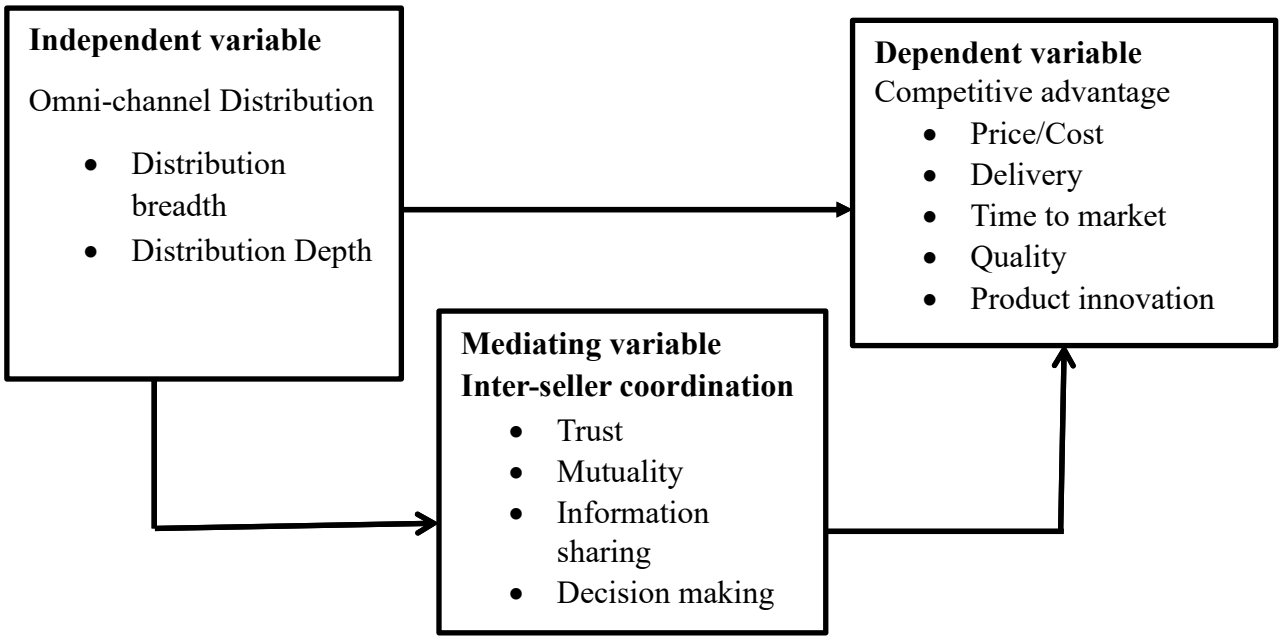

Figure 1.1: Conceptual framework of the organizations

Source: Adopted from Ailawadi, (2017), Li (2017), and Liverpool-Tasien,(2024) as modified by the researcher

1.7.1 Description of the Model

Omni-channel distribution was based on the model of Ailawadi (2017) which measures the variable using distribution breadth and distribution depth. Competitive advantage was based on the model of Li (2006) which measures the variable using cost, delivery and time to market .On the other hand, inter seller coordination was based on Liverpool-Tasie et al., (2024)

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of literature drawn from academic journals, books, reports, theses, and dissertations relevant to the concepts discussed in this study. The review is structured according to the study's specific objectives. It begins with a discussion of the theoretical foundations that underpin the research, followed by a conceptual review and an empirical analysis of existing studies.

2.2 Theoretical review

A theory is a body of knowledge that has been generated through to increase our understanding of the concepts (Kivunja, 2018). A good theory is one that informs the practice and a practice must be explained by a theory (Boone et al., 2010), effective theories not only explain existing phenomena but also inform practical decision-making.

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In the context of this study, Transaction Cost Theory provides a useful lens for examining how second-hand clothing sellers in Uganda manage costs associated with coordination, trust, and information sharing factors that directly influence their ability to maintain competitiveness in a dynamic marketplace.

TCT thus explains why such sellers engage in relationship marketing, reputation-building, and customer retention tactics to safeguard their investments and reduce dependency. As such, the theory provides a framework for understanding how informal sector businesses achieve competitive advantage not only by minimizing transaction costs, but also by effectively managing asset specificity. This is particularly important in settings like Uganda, where informal markets are prevalent and legal or institutional support is limited. Therefore, Transaction Cost Theory fits this study well because it provides insights into how second-hand clothing sellers navigate uncertainty and achieve performance outcomes through strategic cost reduction and relationship governance.

2.3 Conceptual Review

2.3.1 Competitive advantage

Competitive advantage refers to the unique strengths or attributes that make a company more attractive to customers compared to its competitors. It represents those distinctive qualities that set a business apart and help it maintain a strong position in the market.

According to Li et al. (2006), competitive advantage arises from the specific capabilities and decisions that allow a firm to differentiate itself and protect its market position. In essence, it is shaped by how well a company uses its resources and strategies to take advantage of market opportunities (Friesenbichler, 2022).

Correia (2020) suggests that competitive advantage can be assessed through factors such as imitability, durability, and ease of matching that is, how difficult it is for competitors to copy or surpass a firm's strengths. Similarly, Kusumadewi (2020) identifies price or cost efficiency, product quality, delivery reliability, innovation, and speed to market as the main sources of a firm's advantage. Overall, competitive advantage can be reflected through a company's profit levels, market share, customer satisfaction, and growth in revenue when compared to others in the same industry.

In this study, competitive advantage will be measured using three key indicators: cost, delivery, and time to market. These dimensions capture how efficiently and effectively second-hand clothing sellers can operate within a competitive environment.

Various scholars have explored the factors that influence competitive advantage. For instance, Correia (2020) linked it to a firm's dynamic capabilities, market orientation, and overall business performance. Zhang (2022) associated it with network orientation, organizational adaptability, and innovation, while Farhikhteh (2020) connected it to broader competitiveness factors. Clean (2021) also examined its relationship with corporate social responsibility in the context of Chinese construction firms. Similarly, Ailawadi (2017) highlighted the role of customer value and distribution competence, noting that retailers who develop strong distribution systems are more likely to create customer value and achieve higher performance particularly in omni-channel environments, such as those observed in Vietnam.

According to Thatte (2007); Cost is the ability of a firm to compete against major rivals based on low cost or price. It can be measured using indicators such as offering competitive prices and the ability to provide prices as low or lower than competitors. Recent studies emphasize that cost efficiency, particularly through green and lean supply chain practices, is essential for sustaining competitive advantage (Shubita, 2023). Additionally, Wang (2025) asserts that cost optimization strategies aligned with sustainable development goals enable firms to reduce expenses while enhancing supply chain resilience and performance.

Delivery is the ability of a firm to provide, on time, the type and volume of product required by customers. It can be measured using indicators such as delivering customer orders on time and providing dependable delivery (Thatte, 2007). Recent research highlights that reliable delivery performance enhances customer satisfaction and supply chain responsiveness (Al-Shboul et al., 2022). Furthermore, Li et al. (2023) suggest that integrating advanced logistics solutions, such as UAV and vehicle collaboration, can improve both speed and reliability of last-mile delivery key dimensions of delivery performance in modern supply chains.

Time-to-market is defined as the ability of a firm to introduce new products faster than its major competitors. It is measured using indicators such as being first to market with new products, maintaining a time-to-market lower than the industry average, and achieving faster product development cycles (Thatte, 2007). Recent findings suggest that faster time-to-market enhances a firm’s competitiveness by improving responsiveness to customer needs and market changes (IoT Analytics, 2024). Similarly, Choi (2021) argues that digitalization and integration across channels shorten innovation cycles, enabling firms to sustain agility in product launch processes.

Product innovation refers to the introduction or improvement of products, processes, or services that enhance value creation, differentiation, and customer satisfaction (Zhang & Li, 2023). It enables firms to respond to changing customer preferences, market trends, and technological developments faster than competitors, thereby sustaining long-term advantage. According to Porter's (1985) framework, innovation is a core driver of differentiation strategy, allowing firms to achieve uniqueness in their offerings and maintain competitiveness. Recent studies have reinforced that innovation enhances firm adaptability and responsiveness, especially in volatile environments such as informal and retail markets (Narteh, 2022). In the context of informal traders, product innovation may involve customizing products, introducing new styles, or leveraging digital platforms to reach new customers, all of which contribute to improved competitiveness.

Quality is the extent to which a product meets or exceeds customer expectations in terms of functionality, durability, design, and reliability (Rahman et al., 2022). It remains one of the most significant determinants of competitive advantage because customers are more likely to remain loyal to firms that consistently deliver superior quality (Kotler ,2021). High-quality products also reduce return rates, build brand reputation, and create positive word-of-mouth marketing, thereby strengthening market position (Mutua, 2023). For informal traders, maintaining consistent product quality despite fluctuating supply sources and limited storage capacity represents a critical capability that directly influences competitiveness.

2.3.2 Omni channel distribution

Many studies have examined omni-channel distribution across different contexts. In this study, it is understood as the integration of all customer touchpoints into a single, seamless experience (Verhoef, 2015). Scholars such as Ailawadi et al. (2017) describe omni-channel

distribution in terms of distribution breadth and distribution depth dimensions that reflect how widely and deeply products are available across different channels. The ultimate goal is to ensure consistent customer engagement and satisfaction by aligning marketing, logistics, and customer service across all platforms (Verhoef et al., 2015).

According to Karolefski (2016), omni-channel distribution enhances customer satisfaction, while Hugo Boss (2016) observes that it allows customers to perceive one unified brand experience rather than separate channels. Cuthbertson (2014) notes that implementing omni-channel strategies in the fashion retail industry is particularly challenging, as it demands seamless coordination between physical and online platforms. Laseter et al. (2015) add that achieving this integration involves complex trade-offs among responsiveness, product variety, and convenience all of which rely heavily on enterprise-wide information visibility.

Despite growing adoption globally, the use of omni-channel distribution within Uganda's informal sector remains underexplored. The Bank of Uganda (2023) reports that about 80% of mobile money transactions are carried out by individuals in the informal sector, although most are of low value (below UGX 60,000). However, only a small fraction of informal businesses possesses the technological infrastructure needed for digital operations, indicating limited digital adoption (Daily Monitor, 2023). Thus, while omni-channel practices may exist in fragmented forms, research on their implementation in Uganda's informal markets remains scarce compared to the formal sector.

Several scholars have connected omni-channel distribution to different business variables. Amalia (2022) examined its influence on reseller behaviour and purchase paths; Stanley (2017) studied its role in last-mile distribution; Paul (2021) investigated the enablers of omni-channel retail within supply chains; Zhang (2022) explored its connection with store

service quality; and Ailawadi (2017) focused on managing multi- and omni-channel systems.

More recently, Yrjola (2018) found that omni-channel strategies influence customer behaviour, which in turn strengthens competitive advantage. Understanding consumer behaviour enables firms to position themselves for long-term success in an increasingly interconnected marketplace. Kraus et al. (2023) further highlight that distribution breadth the number and reach of touch points improves accessibility and brand presence, while distribution depth focuses on how easily customers can find, recognize, and prefer a brand within a retail outlet.

In this study, distribution breadth will be measured by indicators such as the number of retail outlets that stock the supplier's brand, the significance of those outlets, and how convenient they are for customers to access. Distribution depth will be measured by the extent of product line availability, merchandising prominence, and the retailer's effectiveness in supporting customer purchases (Kraus et al., 2023).

2.3.3 Inter seller coordination

Inter-seller Coordination is the process by which independent sellers or businesses collaborate through information sharing, trust-building, and joint problem-solving to optimize operations, manage risks, and enhance market responsiveness Cao & Zhang, (2020) Liverpool-Tasie et al., (2024). Inter seller coordination refers to the collaborative practices and mechanisms through which sellers in the same market align activities such as information sharing, joint planning, and synchronized operations to reduce inefficiencies and enhance competitiveness (Simatupang, 2002).

Existing research shows inter-seller coordination improves efficiency, minimizes destructive competition, and strengthens collective market power through resource pooling, shared

logistics, and standard-setting (Narus, 1990). Studies also emphasize that trust, commitment, and mutual dependency are central enablers of successful coordination (Morgan, 1994). However, inter-seller coordination plays out in informal or small-scale economies, such as second-hand clothing markets in developing countries, and the extent to which emerging practices like digital platforms and omni-channel distribution shape coordination (Kumar, 2014).

Emphasis should be put in how inter-seller coordination influences competitive advantage in fragmented markets, the mechanisms through which it balances cooperation and competition, and how contextual factors such as resource scarcity, regulation, and customer dynamics determine its outcomes (Simatupang, 2005).

Inter seller coordination refers to the collaborative practices and mechanisms through which sellers in the same market align activities such as information sharing, joint planning, and synchronized operations to reduce inefficiencies and enhance competitiveness (Simatupang, 2002). Existing research is that inter-seller coordination improves efficiency, minimizes destructive competition, and strengthens collective market power through resource pooling, shared logistics, and standard-setting (Anderson, 1990). Studies also emphasize that trust, commitment, and mutual dependency are central enablers of successful coordination (Morgan, 1994).

However, inter-seller coordination plays out in informal or small-scale economies, such as second-hand clothing markets in developing countries, and the extent to which emerging practices like digital platforms and omni-channel distribution shape coordination (Kumar, 2014). What we should know is how inter-seller coordination influences competitive advantage in fragmented markets, the mechanisms through which it balances cooperation

and competition, and how contextual factors such as resource scarcity, regulation, and customer dynamics determine its outcomes (Simatupang, 2005).

Inter-seller coordination, broadly defined as horizontal collaboration among autonomous sellers involving information sharing, joint actions (e.g., pooled buying, stock swaps), and synchronized decisions regarding pricing or replenishment, has been theorized in supply chain literature as a multidimensional construct (Barratt, 2004). This study defines inter-seller coordination as the structured and informal practices through which independent second-hand clothing sellers in Uganda share demand and inventory information, coordinate joint procurement or stock redistribution, and align pricing or promotional decisions to reduce cost and responsiveness.

While previous research has predominantly centered on formal, vertical supply chain coordination in developed markets, there is a notable gap in exploring how informal traders in developing contexts coordinate, particularly when enabled by omni-channel tools like WhatsApp, Facebook Marketplace, mobile money, and messaging-based networks (Djofack, 2021). Recent reports affirm that in East Africa's recommerce sector, social commerce platforms and messaging apps remain frontline channels for second-hand sales, where sellers use these channels for peer-to-peer coordination (Africa Recommerce Market Intelligence Report, 2025).

Theoretically, omni-channel practices enhance transparency and information flow, thereby strengthening inter-seller coordination, which in turn drives efficiency, responsiveness, and competitive advantage suggesting inter-seller coordination mediates the effect of omni-channel distribution on firm performance (International Journal of Production Economics, 2020).

In this study, inter-seller coordination will be operationalized through Likert-scale measures (1–5) adapted from Simatupang et al. (2002) and Barratt (2004), spanning three dimensions: information sharing, joint actions, and decision synchronization, alongside capturing which omni-channel tools are used to support these behaviors. This operationalization is vital, as it captures both traditional and digital coordination mechanisms, illuminating the behavioral pathways through which omni-channel distribution fosters competitive advantage among second-hand clothing sellers in Uganda.

2.4 Empirical Review

2.4.1 Omni-Channel Distribution and Competitive Advantage

Literature indicates that Omni channel distribution positively influences competitive advantage (Zhao, 2024). Research conducted in China by Zhao et al (2024) shows a positive relationship between Omni channel distribution and Competitive advantage in the fashion industry. In contrast, Nguyen et al. (2022) carried out research in Vietnam and highlighted a positive relationship**.** Kirana (2019), in a study conducted among retail SMEs in India, established that Omni-channel distribution positively influences a firm's competitiveness through improved accessibility, flexibility, and personalization of services.

Scholars have shown that Omni channel distribution fuels competitive advantage by having a well-structured Omni channel system since firms lacking a well-structured Omni-channel system tend to suffer inefficiencies in service delivery, reduced customer trust, and low adaptability to technological trends (Klaus, 2020). Furthermore, through seamless channel integration, Omni-channel distribution reduces operational silos and enhances real-time coordination among departments, making it easier to respond to customer inquiries and resolve complaints effectively (Cuthbertson, 2014). This enhances customer experiences and builds brand loyalty key elements of competitive advantage.

These variables impact each other because integrating Omni-channel strategies into strategic planning enhances market responsiveness, strengthens firm positioning, and increases the agility required to thrive in highly competitive sectors. The cumulative outcome of this distribution approach is an improved competitive position, sustained customer engagement, and ultimately, long-term firm performance. The study's primary goal is to determine the relationship between Omni channel distribution and competitive advantage.

H1; Omni channel Distribution has a positive effect on competitive advantage

2.4.2 Omni-channel Distribution and inter seller coordination

Omni-channel distribution integrating online and offline touchpoints and using digital platforms (social media listings, messaging apps, mobile payments) improves information visibility, reduces friction in communication, and creates new, low-cost channels for real-time exchange among market actors; these capabilities make frequent, accurate peer-to-peer information sharing and quick joint actions feasible even among informal traders (Chen et al., 2023).

Recent empirical and review studies show that omni-channel practices strengthen supply-chain integration and external information flows, which are the operational antecedents of coordination (Liu, 2024). Additionally, studies find that digital transformation, alliance management and omni-channel investments strengthen supply-chain integration and external information follows the proximate antecedents of coordination by enabling faster sharing of inventory, demand and pricing information (Liu, 2024).

In contexts undergoing digital adoption, alliance management and digital transformation further amplify these effects by giving small sellers tools to coordinate procurement, delivery and pricing decisions via platforms and messaging groups (Dubey et al., 2024). Together, the literature suggests a clear mechanism: omni-channel tools greater transparency

& communication frequency stronger inter-seller coordination (Liu, 2024). Scholars note that social commerce and messaging platforms act as low-cost coordination tools that substitute for formal contracts and enable joint actions such as pooled buying or rapid stock swaps (Thaichon, 2024).

H2; Omni channel distribution has a positive significant effect on inter seller coordination

2.4.3 Inter seller coordination and competitive advantage

Coordination among sellers is increasingly recognized as a critical determinant of competitive advantage, particularly in dynamic and fragmented markets such as the informal second-hand clothing sector in Uganda. In supply chain literature, inter-seller coordination is operationalized as the frequency and quality of information sharing, joint procurement or redistribution of stock, and the synchronization of pricing, delivery, and promotional decisions (Barratt, 2004).

Frequent and accurate information sharing enables sellers to maintain awareness of market demand, inventory availability, and competitor actions, thereby reducing information asymmetry and market uncertainty. For example, if a seller in Owino Market shares real-time stock information with peers, other traders can adjust their purchasing decisions or redistribute surplus items to meet demand peaks, minimizing lost sales or overstock situations (WasteAid, 2024).

Joint procurement and redistribution of goods is another critical aspect of coordination. Through pooled purchasing arrangements, sellers can access lower prices from suppliers due to economies of scale, which directly reduces per-unit costs and increases profit margins (Mukhtar, 2020). Additionally, redistribution of surplus stock among sellers ensures optimal inventory utilization, reduces the risk of spoilage or obsolescence, and enhances overall market responsiveness. In informal markets where capital constraints are significant, such

collaborative practices provide a low-cost mechanism to improve operational efficiency and expand product availability (Verhoef, 2015). Empirical studies in both formal and informal retail contexts indicate that such coordination practices are associated with measurable performance improvements, including higher sales volumes, faster turnaround times, and enhanced customer satisfaction (International Journal of Production Economics, 2020).

Synchronized pricing and fulfilment strategies also contribute to competitive advantage by stabilizing market dynamics and enhancing customer trust (Mukhtar, 2020). When sellers coordinate their pricing strategies, they reduce the likelihood of price wars that erode margins and can collectively respond to fluctuations in demand without destabilizing the market Coordination in delivery and fulfilment ensures that customers receive their purchases reliably and on time, which is particularly relevant in omni-channel and multi-location operations (Verhoef, 2015). In Uganda's mitumba markets, sellers increasingly use mobile phones and messaging apps such as WhatsApp to coordinate pricing, promotions, and delivery logistics (Mukanga, 2020) This digital coordination complements traditional informal networks, enabling sellers to respond rapidly to shifts in customer demand while maintaining competitiveness in a highly dynamic environment (UNCTAD, 2024).

The operational gains from inter-seller coordination map directly onto classic competitive advantage dimensions, including cost leadership, speed, and reliability (Mukhtar, 2020). By reducing transaction and inventory costs, coordination lowers operational expenses while maintaining service quality (Verhoef, 2015). Faster and more reliable fulfilment enhances customer satisfaction and loyalty, which in turn can increase market share and support long-term business sustainability (Mukhtar, 2020). Coordination also facilitates agility and flexibility, enabling sellers to adapt quickly to changing market conditions or supply disruptions a critical capability in informal markets where external shocks, such as

fluctuations in import availability or sudden changes in demand, are common (WasteAid, 2024).

Several scholars highlight the broader theoretical rationale for these effects. Resource-based and relational perspectives suggest that coordination among sellers constitutes a valuable, rare, and difficult-to-imitate capability that can generate sustained competitive advantage (Barratt, 2004). In informal contexts, relational ties and trust networks enhance the effectiveness of coordination, as sellers are more willing to share information and collaborate when trust and reciprocity exist (Haung, 2020) Empirical evidence indicates that clusters of coordinated sellers outperform uncoordinated peers in terms of market coverage, stock availability, and service reliability (Liu, 2024).

In Uganda, coordination among second-hand clothing sellers takes both formal and informal forms. Traders often share stock updates, jointly organise procurement trips from importers, and redistribute goods to stalls with higher customer demand allowing them to pool resources and reduce individual risks (WasteAid, 2024). These cooperative practices are becoming more sophisticated through digital means: WhatsApp groups and Facebook Marketplace communities now serve as coordination hubs where sellers post new arrivals, adjust prices collectively, and plan delivery schedules (Verhoef, 2015). Such interactions have created near-real-time coordination networks that improve responsiveness, reduce stock outs, and enhance overall efficiency (Namatovu, 2023). This kind of collaboration demonstrates that inter-seller coordination is not just a theoretical construct but a practical reality in Uganda's mitumba (second-hand clothing) trade. It strengthens competitiveness by improving information flow and enabling joint decision-making (Sserwanga, 2022).

Broadly, inter-seller coordination serves as a key enabler of competitive advantage by reducing uncertainty, minimising costs, improving market responsiveness, and facilitating

shared strategic actions (Narteh, 2022). Empirical studies on informal trade in sub-Saharan Africa indicate that peer coordination and trust-based networks are essential survival tools in volatile markets with limited institutional support (Nyende, 2021). For Uganda's mitumba sector, such collective practices ensure consistent product availability, sustain customer satisfaction, and support cost-effective operations highlighting the central role of coordination as a driver of competitiveness in informal supply chains (WasteAid, 2024).

H3; Omni channel distribution has an effect on competitive advantage

2.4.4 Mediating Role of inter seller coordination in the Relationship between Omni-Channel Distribution and Competitive Advantage

Inter-seller coordination has become increasingly recognized as a key mechanism through which omni-channel distribution enhances competitive advantage (Verhoef, 2015). Omni-channel systems allow sellers to connect various sales and communication channels such as physical stalls, e-commerce platforms, social media pages, and messaging applications into a unified operational framework (Inman, 2015). However, studies suggest that simply adopting multiple digital channels does not automatically improve performance (Verhoef, 2015). The real benefits emerge when these channels enable collaboration among sellers through information sharing, joint decision-making, and synchronized operations (Dubey, 2024).

From a theoretical standpoint, the mediating role of inter-seller coordination is explained through both resource-based and relational perspectives. The resource-based view considers coordination as a valuable organizational capability that leverages intangible assets like shared knowledge, experience, and social capital to create a lasting competitive advantage (Barney, 2020). On the other hand, relational theory emphasizes that the effectiveness of digital or omni-channel investments depends on the strength of interpersonal relationships

and trust among sellers. When these relationships are strong, sellers can work together to minimize operational costs, improve responsiveness, and enhance customer satisfaction (Kraus., 2023). In essence, omni-channel distribution provides the infrastructure, while inter-seller coordination transforms this infrastructure into operational success through collective actions.

Empirical studies reinforce this mediating relationship. For example, Chen, (2022) observed that omni-channel marketing enhances firm performance mainly through its effect on collaboration and process alignment rather than through direct influence. Similarly, Dubey, (2024) found that digital technologies only lead to improved efficiency and profitability when they promote horizontal coordination among supply chain actors. These findings indicate that inter-seller coordination functions as the behavioural bridge linking digital investments to tangible performance outcomes.

In Uganda's second-hand clothing (mitumba) market, this mediating effect is particularly important. Sellers in this informal sector operate within fragmented networks that lack structured logistics systems. However, the widespread use of tools such as WhatsApp groups, Facebook Marketplace, and mobile money platforms has allowed traders to share information and collaborate more effectively (WasteAid, 2024). The true value of these platforms is realized when sellers engage in coordinated activities such as collective purchasing, redistributing inventory among peers, harmonizing prices, and running joint promotions. Through these actions, inter-seller coordination converts digital connectivity into practical and strategic benefits that strengthen competitiveness (Verhoef, 2015).

To measure this relationship, omni-channel distribution is assessed through the breadth and frequency of channel usage, while inter-seller coordination is evaluated through indicators like information sharing, joint action, and decision synchronization (Verhoef, 2015).

Competitive advantage, in turn, is measured using dimensions such as cost efficiency, delivery reliability, responsiveness, and customer satisfaction (Wang, 2025). Testing this mediation helps to uncover not just whether omni-channel distribution enhances competitiveness, but also the specific mechanisms through which it does so offering valuable insights for informal market traders seeking to use digital tools more strategically (Verhoef, 2015).

Overall, the mediating role of inter-seller coordination highlights the central importance of human and relational factors in realizing the potential of omni-channel distribution (Verhoef, 2015). It shifts the focus from technology adoption alone to the collaborative behaviours and trust-based relationships that transform digital capabilities into sustainable competitive advantage especially in resource-constrained contexts like Uganda's informal mitumba sector.

H4; inter seller coordination mediates the relationship between Omni channel distribution and competitive advantage.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodological framework used to conduct the study. It outlines the research design, target population, sampling techniques, sample size, data collection tools, and methods of data analysis. It also explains how variables were measured and details the ethical considerations and limitations encountered during the research process. The aim of this chapter is to present a clear, structured, and transparent approach that ensured the collection of credible, valid, and objective data necessary for achieving the study's objectives.

3.2 Research Design

The study adopted a cross-sectional survey design, which allows data collection from respondents at a single point in time. This design was ideal because it efficiently captured the prevailing relationships between omni-channel distribution, inter-seller coordination, and competitive advantage within Uganda's SHC sector. It also suited the limited financial and time resources typical of informal-sector research (Creswell & Creswell, 2018).

A quantitative approach was employed to ensure objectivity, accuracy, and statistical measurability of results. This approach minimizes researcher bias and enables replication in similar contexts (Saunders et al., 2019). The design was justified because the study aimed to test hypothesized relationships between variables rather than to explore narratives. Quantitative surveys also allow generalization of findings across a large population of sellers, which enhances external validity.

3.3 Unit of analysis and Unit of inquiry

The unit of analysis consisted of the informal sector and unit of inquiry consisted of second-hand clothing traders located in Kampala, Mukono, and Wakiso districts. These respondents were selected because they are directly engaged in business operations and decision-making processes that relate to omni-channel distribution and competitiveness. Their experience and involvement in day-to-day business activities provided accurate and insightful data necessary for achieving the study objectives

3.4 Study Population and sample size determination

Economic Policy Research Centre (2024), asserts that there is an exponential increase in the number of second-hand cloth sellers in Uganda. The analysis also showed that second hand cloth sellers grew from 388,022 in 2011 to 698,781 in 2021. To estimate the population size in 2024, I used the exponential growth formula;

$$P(t) = P_0 e^{rt}$$

Where; $P(t)$ is the population at time t, P_0 is the initial population, r is the growth rate, t is the time in years, and e is the base of the natural logarithm (~2.71828).

To determine r;

$$P_0 = 388{,}022,\ P(t) = 6698{,}781,\ t = 2021 - 2011 = 10.$$

$$r = \frac{1}{t}.ln\left(\frac{P(t)}{P_0}\right) = \frac{1}{10}.ln\left(\frac{698{,}781}{388{,}022}\right) = 0.05877$$

Population estimates for the year 2024;

$$P_0 = 388{,}022,\ t = 2024 - 2011 = 13, \text{ and } e = 2.71828$$

$$P(t) = P(13) = 388{,}022\ .e^{(0.05877)(13)} = 833{,}655$$

To determine the sample size using the Yamane (1967) formula, with 95% confidence interval, margin of Error is 0.05 0r 5%.

$$Sample\ size = \frac{N}{1 + N(E)^2} = \frac{833{,}655}{1 + 833{,}655(0.05)^2} = 400$$

Therefore, the study population consisted of 833,655 sellers and a sample size of 400 second hand cloth sellers.

3.5 Sampling technique

The study used snow ball sampling because it is cost effective, time saving and the study population was homogenous with similar characteristics, traits and qualities. Snowball sampling is a non-probability sampling method where initial participants are used to recruit additional participants from their social networks who meet the eligibility criteria and it is commonly applied when studying hard-to-reach or dispersed populations Naderifar, (2017)

Given that the target population is dispersed across various locations, the researcher started with a few known second-hand cloth business owners. These initial participants identified others within their circles that have also benefited from the business. This strategy was repeated until 350 respondents were reached. Therefore, snowball sampling facilitated access to a concealed population that is essential for evaluating Omni channel distribution and competitive advantage among informal traders.

3.6 Data collection method and instrument

3.6.1 Data collection Methods

Data collection refers to the systematic process of gathering information relevant to a research study. Data were collected from 350 second-hand clothing sellers operating in Kampala, Mukono, and Wakiso districts using structured questionnaires. These instruments gathered information about traders' business practices, digital-platform usage, coordination behaviour, and perceived competitiveness. Questionnaires were administered through face-to-face interactions, telephone interviews, and paper-based formats, depending on

respondent accessibility. This mixed-administration method improved participation and reliability by accommodating both digitally literate and traditional market traders.

The questionnaire comprised close-ended questions on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). This structure allowed for quantitative measurement of perceptions and behaviours aligned with the study objectives (Likert, 1932; Fernandez & Randall, 1991). Prior to full deployment, the instrument was pre-tested among 30 respondents to ensure clarity and reliability.

3.6.2 Data Collection Tools/instrument

The data collection instrument used in this study was a questionnaire, which, according to Amin (2005), consists of a set of pre-determined questions designed to obtain specific information from respondents. A single structured questionnaire was developed and administered to all participants to ensure consistency and comparability of responses.

The Likert scale was chosen because it effectively captures clusters of attitudes or perceptions on a particular issue, as originally noted by Likert (1932), who emphasized that individual attitudes toward any given phenomenon can be grouped into measurable response categories. Furthermore, a five-point scale was adopted following Fernandez and Randall (1991), who suggested that including a neutral or undecided option minimizes response bias by allowing participants to express neutrality when they have no strong opinion either way.

(See Appendix 1 for the questionnaire.)

3.7 Measurement of Study Variables

All measures of the study variables in this study were adapted from previous researchers as shown below however for the dependent variable competitive advantage, product

innovation and quality were omitted from the write up during analysis because they both had insignificant outcomes.

Table 3.1: Measurement of Study Variables

STUDY VARIABLE	DIMENSIONS	OPERATIONAL DEFINITION	EXAMPLE OF MEASUREMENT ITEMS	SCALE	SOURCE
Omni-Channel Distribution (refers to the integration of multiple sales and delivery channels to create a seamless shopping experience for consumers)	**Distribution Depth**	The extent to which consumers can easily locate and access the supplier's brand in retail outlets, and how attractive the brand appears relative to competitors.	- The number of retail outlets carrying supplier brands. - The importance and visibility of these outlets. - Ease of locating and shopping from the outlets.	5-point Likert scale:1 = Strongly Disagree5 = Strongly Agree	Ailawadi (2017)
	Distribution Breadth	Refers to how widely available the supplier's product line is across different outlets and how well it is promoted to reach customers.	- The proportion of the supplier's product line distributed. - Prominence of merchandising relative to competitors. - Effectiveness of retailer support in reaching target customers.	5-point Likert scale	Ailawadi (2017)
Competitive Advantage (the firm's ability to outperform competitors through unique resources, efficiency, and customer value)	**Price**	The firm's capacity to compete with major rivals through cost efficiency and favourable pricing.	- Offers competitive prices. - Able to offer lower or equal prices compared to competitors.	5-point Likert scale	Thatte (2007); Li et al. (2006); Zaheer (1995)
	Quality	The firm's ability to provide products that consistently meet customer expectations in terms of performance, durability, and reliability.	- Delivers high-quality products - Ensures product reliability and durability. - Maintains consistent quality standards.	5-point Likert scale	Thatte (2007); Li et al. (2006)
	Delivery Dependability	The extent to which a firm can fulfil customer orders on time and deliver the required quantities.	- Fulfils customer orders promptly. - Ensures dependable delivery schedules.	5-point Likert scale	Thatte (2007)

	Product Innovation	The firm's ability to introduce new or customized products that meet emerging customer needs.	- Provides customized products. - Modifies product offerings to match client preferences. - Responds to market demand for new features.	5-point Likert scale	Li et al. (2006); Thatte (2007)
	Time to Market	How quickly a firm can introduce new products compared to competitors.	- First to launch new products in the market. - Maintains a shorter product development cycle. - Responds rapidly to changing market trends.	5-point Likert scale	Li et al. (2006)
Inter-Seller Coordination (refers to collaboration among independent sellers through trust, shared information, and joint decision-making to improve efficiency and market responsiveness)	**Trust**	The degree of confidence and mutual belief among traders that partners will act honestly, reliably, and fulfil commitments.	- Timely fulfilment of agreed tasks. - Consistent and transparent communication. - Honesty and fairness in transactions.	5-point Likert scale	Cao & Zhang (2020)
	Information Sharing	The willingness of sellers to exchange accurate, timely, and complete business information to enhance coordination.	- Frequency and timeliness of information sharing. - Accuracy and completeness of shared data.	5-point Likert scale	Cao & Zhang (2020)
	Mutuality	The extent to which sellers share responsibilities, risks, and benefits equally in their relationships.	- Willingness to share resources and benefits. - Fair distribution of profits and opportunities. - Shared outcomes from joint sales efforts.	5-point Likert scale	Liverpool-Tasie et al. (2024)
	Joint Planning and Decision-Making	The degree to which traders jointly develop strategies and make collaborative business decisions.	- Frequency of joint meetings and planning sessions. - Level of participation in collaborative decision-making.	5-point Likert scale	Liverpool-Tasie et al. (2024)

3.8 Data Analysis Techniques

The collected data were coded and organized using the Statistical Package for Social Sciences (SPSS) to ensure accuracy and reliability in analysis. The study employed the Structural Equation Modelling (SEM) technique to examine both the measurement model and the structural model, allowing an assessment of the model's overall fit and consistency between the theoretical framework and empirical results (Hair et al., 2010).

SEM was selected because it is a powerful multivariate analysis technique that integrates various statistical methods such as regression, path analysis, and factor analysis to explore complex interrelationships among variables (Gefen et al., 2000).

Initially, correlation analysis was conducted to identify the relationships among the study variables. This was followed by regression analysis to test the study's hypotheses and determine the strength and direction of these relationships. The regression was executed through Partial Least Squares Structural Equation Modelling (PLS-SEM) using SmartPLS software. This technique was particularly suitable as it allows the simultaneous testing of both direct and indirect (mediating) effects, providing deeper insights into how inter-seller coordination mediates the relationship between omni-channel distribution and competitive advantage.

3.9 Reliability and Validity

Reliability refers to the consistency of a measurement tool in producing stable and dependable results. According to Urbach and Ahlemann (2010), indicator reliability is achieved when a set of variables consistently measures what it is intended to measure. Chin (1998) notes that indicator loadings should be significant at $p < 0.05$ and not less than 0.70.

Because this study used PLS-SEM, composite reliability (CR) was applied to assess internal consistency, as it accounts for different indicator loadings (Chin, 1998). While Cronbach's Alpha is a common reliability measure, it may underestimate internal consistency since it assumes all indicators contribute equally. Following Sarstedt et al. (2019), internal consistency is considered satisfactory when CR values are ≥ 0.70, whereas values below 0.60 indicate a lack of reliability.

Validity ensures that the research instrument accurately measures the intended constructs. This study adopted measurement items from validated instruments used by previous researchers to strengthen both content and construct validity. Discriminant validity was also examined to ensure that constructs are distinct and not overlapping (Urbach & Ahlemann, 2010).

According to Fornell and Larcker (1981), discriminant validity can be assessed by comparing correlations among constructs a construct should share more variance with its indicators than with other constructs. Additionally, confidence intervals were examined to ensure that neither the lower nor upper bounds included a value of 1, as suggested by Henseler et al. (2015), confirming satisfactory discriminant validity.

Table 3.2: Reliability and validity of study variables

Study Variables	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Competitive Advantage	0.811	0.847	0.347
Inter-seller coordination	0.597	0.823	0.702
Omni-Channel Distribution Strategy	0.836	0.900	0.750

Source: Standardized Item loadings (SIL); Composite reliability (rho_c); Average variance extracted (AVE)

The results show that the Omni-Channel Distribution Strategy demonstrates strong reliability and validity, with Cronbach's alpha (0.836), composite reliability (0.900), and AVE (0.750) exceeding the recommended thresholds. **Inter-seller Coordination** exhibited slightly lower internal consistency (α = 0.597), but its CR (0.823) and AVE (0.702) confirm that the construct remains reliable and valid likely, the lower alpha results from a smaller number of items. Competitive Advantage shows good internal consistency (α = 0.811) and acceptable CR (0.847), though its AVE (0.347) falls below the recommended 0.50, suggesting limited convergent validity. Overall, the results indicate that while the first two constructs are well measured, the Competitive Advantage construct may require refinement for improved indicator performance.

3.10 Ethical Considerations

Ethical standards were upheld throughout the research process to maintain the integrity of the study. Informed consent was obtained from all participants prior to data collection, ensuring voluntary participation. Respondents' privacy and confidentiality were guaranteed by anonymizing responses and restricting data use solely for academic purposes. Additionally, the study received ethical approval from the appropriate institutional review boards to ensure compliance with research ethics and integrity standards (Resnik, 2021).

3.11 Limitations of the Study

Despite careful planning, several limitations influenced the study's outcomes. Some participants declined to respond to certain questions, leading to non-response bias. Time constraints also limited the depth of analysis that could be achieved. Moreover, since the study focused solely on the second-hand clothing sector, the results may not be fully generalizable to other industries. Nonetheless, these challenges were recognized, and

measures such as pretesting and targeted sampling were implemented to reduce their potential impact (Robson & McCartan, 2022).

3.12 Data Processing, Analysis, and Presentation

After data collection, responses were entered, cleaned, and organized using SPSS software to enhance data quality and minimize errors. A Pearson correlation analysis was conducted to determine significant associations among the study variables. The Partial Least Squares Structural Equation Modelling (PLS-SEM) approach was used for further testing of both direct and indirect relationships (Ramli et al., 2018).

The PLS-SEM model was evaluated based on construct collinearity, path coefficient significance, explanatory power (R^2), and predictive relevance (Q^2), following the guidelines of Khan et al. (2019). Bootstrapping with 5,000 subsamples was performed to test the significance of paths between constructs (Hair & Sarstedt, 2021). Data management and analysis were supported by SPSS, Excel, and SmartPLS 4.0.9.0, enabling robust and accurate results. Findings are presented through descriptive statistics and correlation tables, followed by detailed interpretations.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents, analyzes, and interprets the findings of the study, which examined the mediating role of inter-seller coordination in the relationship between omni-channel distribution and competitive advantage among second-hand clothing sellers in Uganda. The chapter begins with respondents' demographic characteristics, followed by empirical results on the key study constructs.

4.2 Response Rate

Table 4.1 below presents the response rate for the study. A total of 400 questionnaires were distributed to the target respondents, and all were returned within the expected period. However, only 350 questionnaires were deemed valid for analysis after screening for completeness and accuracy. This resulted in a high effective response rate of 87.5%, which indicates strong participation and enhances the reliability of the findings. Consequently, the results obtained are considered a credible representation of the target population.

Table 4.1: Response rate

Category	Target No of Respondents	Realized No of Respondents	Percentage of response (%)
Respondents	400	350	87.5%

Source: Primary data, 2025

4.3 Background Characteristics of Respondents

This section presents the demographic and background characteristics of the respondents, which help to provide context for interpreting the study results. These characteristics were analyzed based on several variables such as gender, age group, education level, business experience, and type of business operation. Understanding these attributes offers valuable

insight into the composition of the sample and helps explain how different respondent profiles may influence perceptions of omni-channel distribution, inter-seller coordination, and competitive advantage.

4.3.1 Background Characteristics of Respondents

a) Gender

Table 4.2: Gender of Respondents

Gender	Frequency	Percentage
Male	160	45.7
Female	190	54.3
Total	**350**	**100.0**

Source: Primary data, 2025

Results in Table 4.2 indicate that, men made up 45.7% of the study participants while women made up 54.3%. This shows that women make up the majority of the workforce in second hand clothing businesses because they are more versatile and easier to deal with.

b) Position in business

Table 4.3: Position in Business of the respondents

Position in business	Frequency	Percentage
Owner	209	59.7
Manager	141	40.3
Total	**350**	**100.0**

Source: Primary data, 2025

Regarding the position the respondent occupied in the business, the majority of respondents 59.7% were owners, while the least respondents 40.3% were managers, given that the majority of respondents were owners, this suggests that they were knowledgeable about their respective fields and were able to provide reliable information indicating that data was collected from respondents who matched the study's target demographic

c) Level of education

Table 4.4: level of education of respondents

Level of education	Frequency	Percent
Secondary (O' level)	172	49.1
Secondary (A' level)	101	28.9
Diploma	53	15.1
Bachelor's	21	6.0
Masters	3	.9
Total	**350**	**100.0**

Source: Primary data, 2025

Additionally, the majority of respondents 49.1% had secondary school education with O' Level certification as their highest level of education, 28.9% had a Secondary education with A' level certification, 15.1% had diploma, 6.0% had Bachelor's degrees while the least number 0.9% had master's degrees indicating that the respondents have the necessary knowledge to perform their jobs effectively.

d) Number of years spent in business

Table 4.5:Number of years spent in business

Number of years spent in business	Frequency	Percent
Less than 5 years	156	44.6
5-10 years	135	38.6
10-15 years	43	12.3
15-20 years	15	4.3
Above 20 years	1	.3
Total	**350**	**100.0**

Source: Primary data, 2025

Regarding the number of years, the respondent spent in the clothing business, the majority of respondents 44.6% have spent less than 5 years,38.6% have spent 5-10 years, 12.3% have spent 10-15 years, 4.3% have spent 15- 20 years while the minority 0.3% have spent above 20 years. This indicates that an appropriate sample was used to gather the data, making the study's conclusions reliable for making references.

e) Distribution methods

Table 4.6: Distribution methods

Distribution methods	Frequency	Percent
Market stall	188	53.7
Distribution channels like wholesalers, retailers. distributors, direct	53	15.1
Online platforms (e.g. Jumia, Glovo, Kikubo online, Whatsapp, Facebook)	7	2.0
All	102	29.1
Total	350	100.0

Source: Primary data, 2025

Regarding the method of distribution, the majority of respondents 53.7% use market stalls,15.1% use distribution channels like wholesalers, retailers, distributors, direct, 2.0% use online platforms (e.g., Jumia, Glovo, Kikubo online, Whatsapp, Facebook, Instagram) and 29.1% use all.

f) Location of the business

Table 4.7:Location of the business

Location of the business	Frequency	Percent
Kampala	128	36.6
Mukono	124	35.4
Wakiso	98	28.0
Total	350	100.0

Source: Primary data, 2025

Regarding the location of the business 36.6% are located in Kampala, 35.4% in Mukono while 28.0% in Wakiso.

g) Nature of business

Table 4.8:Nature of business

Nature of business	Frequency	Percent
Sole proprietorship	264	75.4
Joint venture	63	18
Partnership	15	4.3
Cooperative	4	1.1
Other	4	1.1
Total	**350**	**100.0**

Source: Primary data, 2025

Regarding the nature of the business 75.4% are sole proprietorships, 18.0% are joint ventures 4.3% are partnerships, 1.1% were cooperatives

4.3 Reliability and validity Of Study Variables

The results indicate that Omni-Channel Distribution Strategy demonstrates strong reliability and validity, with Cronbach's alpha (0.836), composite reliability (0.900), and AVE (0.750) all exceeding recommended thresholds. Inter-seller Coordination shows weaker internal consistency based on Cronbach's alpha (0.597), but its composite reliability (0.823) and AVE (0.702) confirm that the construct is both reliable and valid, suggesting that the low alpha may be due to fewer measurement items. Competitive Advantage, on the other hand, records good internal consistency (alpha = 0.811) and acceptable composite reliability (0.847), yet its AVE (0.347) falls below the recommended 0.50, indicating weak convergent validity. Overall, while the constructs of Omni-Channel Distribution Strategy and Inter-seller Coordination are well measured, the Competitive Advantage construct requires refinement of its indicators to better capture the latent variable.

Table 4.9:Reliability and validity of study variables

Study Variables	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Competitive Advantage	0.811	0.847	0.347
Inter-seller coordination	0.597	0.823	0.702
Omni-Channel Distribution Strategy	0.836	0.900	0.750

Source: Standardized Item loadings (SIL); Composite reliability (rho_c); Average variance extracted (AVE)

4.4.1 Construct reliability and validity of variables

The reliability and validity analysis of the constructs, Delivery Dependability, Price, and Time to Market shows strong measurement properties. Delivery Dependability items (DD1 = 0.876, DD3 = 0.878, DD5 = 0.870) exhibit high loadings, with Cronbach's alpha = 0.846,

composite reliability = 0.907, and AVE = 0.765, indicating strong internal consistency and convergent validity. Price items (PC1 = 0.854, PC2 = 0.759, PC3 = 0.783, PC4 = 0.763, PC5 = 0.787, PC6 = 0.809) also show acceptable loadings, with Cronbach's alpha = 0.882, composite reliability = 0.910, and AVE = 0.629, reflecting excellent reliability and adequate convergent validity. Similarly, Time to Market items (TM1 = 0.855, TM3 = 0.820, TM5 = 0.846) demonstrate strong loadings, with Cronbach's alpha = 0.794, composite reliability = 0.878, and AVE = 0.706, confirming good internal consistency and convergent validity. Overall, all three constructs are reliable and valid for further analysis.

Table 4.10:Construct reliability and validity

	ITEM CODES	SIL	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Delivery Dependability	DD1	0.876	0.846	0.907	0.765
	DD3	0.878			
	DD5	0.870			
Price	PC1	0.854	0.882	0.910	0.629
	PC2	0.759			
	PC3	0.783			
	PC4	0.763			
	PC5	0.787			
	PC6	0.809			
Time to Market	TM1	0.855	0.794	0.878	0.706
	TM3	0.820			
	TM5	0.846			

Source: SMART PLS SEM

4.4.2 Discriminant Validity

The Heterotrait-Monotrait (HTMT) ratio results indicate satisfactory discriminant validity among the study constructs, namely Competitive Advantage, Inter-seller Coordination, and Omni-Channel Distribution Strategy. The HTMT values obtained were 0.241 between Competitive Advantage and Inter-seller Coordination, 0.210 between Competitive Advantage and Omni-Channel Distribution Strategy, and 0.362 between Inter-seller Coordination and Omni-Channel Distribution Strategy. Since all the values are well below

the recommended thresholds of 0.85 (conservative) and 0.90 (liberal) as suggested by Henseler et al. (2015), the findings confirm that each construct is empirically distinct with no issues of multicollinearity or redundancy. This demonstrates that the measurement model in this study achieves strong discriminant validity, ensuring that the constructs used to explain the relationships remain

Table 4.11: Discriminant reliability and validity

	Heterotrait-monotrait ratio (HTMT) - Matrix		
	Competitive Advantage	Inter-seller coordination	Omni-Channel Distribution Strategy
Competitive Advantage			
Inter-seller coordination	0.241		
Omni-Channel Distribution Strategy	0.210	0.362	

Source: SMART PLS SEM

4.4.3 Correlation Analysis

The correlation analysis shows that competitive advantage has a weak negative relationship with inter-seller coordination ($r = -0.128$), indicating that higher coordination among sellers is slightly associated with lower perceived competitive advantage, though the effect is minimal. Competitive advantage also has a weak positive relationship with Omni-channel distribution strategy ($r = 0.163$), suggesting that better Omni-channel practices are slightly linked to higher competitive advantage. Inter-seller coordination and Omni-channel distribution strategy exhibit a low-to-moderate positive relationship ($r = 0.250$), implying that stronger Omni-channel strategies may encourage better coordination among sellers. Overall, the correlations are weak, indicating limited linear relationships, and highlight that while Omni-channel distribution may support inter-seller coordination, its direct effect on competitive advantage is small, and inter-seller coordination alone does not appear to strongly enhance competitive advantage in this context.

Table 4.12: Correlation Matrix of the study variables

	Competitive Advantage	Inter-seller coordination	Omni-Channel Distribution Strategy
Competitive Advantage (1)	1.000		
Inter-seller coordination (2)	− 0.128	1.000	
Omni-Channel Distribution Strategy (3)	0.163	0.250	1.000

Source: SMART PLS SEM

4.5 Hypothesis Testing

The results show that inter-seller coordination has a negative and significant effect on competitive advantage ($\beta = -0.181,\ T = 3.296,\ p = 0.001$), implying that although coordination fosters collaboration, it may limit individual sellers' ability to differentiate themselves, thereby weakening their competitive edge. On the other hand, Omni-channel distribution strategy has a positive and significant direct effect on competitive advantage ($\beta = 0.208,\ T = 4.450,\ p = 0.000$), suggesting that the adoption of multiple integrated distribution channels improves efficiency, market reach, and customer satisfaction, thereby enhancing competitiveness. Similarly, Omni-channel distribution significantly influences inter-seller coordination ($\beta = 0.250,\ T = 4.821,\ p = 0.000$), indicating that the use of Omni-channel platforms encourages collaboration among sellers through information sharing and joint activities.

However, the mediation test reveals that inter-seller coordination negatively mediates the relationship between Omni-channel distribution and competitive advantage ($\beta = -0.045,\ T = 2.711,\ p = 0.007$), meaning that while Omni-channel strategies directly strengthen competitiveness, their indirect influence through coordination slightly weakens the effect, likely due to increased dependency or conflict among sellers. The predictive power of the model is relatively low, with Omni-channel explaining 6.3% of the variance in inter-seller coordination ($R^2 = 0.063, Q^2 = 0.058$) and both variables jointly explaining only 5.7% of the variance in competitive advantage ($R^2 = 0.057,\ Q^2 = 0.021$), which suggests that

other factors not captured in the model also play an important role in determining competitive advantage among second-hand clothing sellers in Uganda.

Table 4.13: Hypothesis Testing

			β	μ	A	T-value	P values	Bca	f2	vif
Inter-seller coordination	->	Competitive Advantage	-0.181	-0.182	0.055	3.296	0.001	-0.284: -0.069	0.032	1.067
Omni-Channel Distribution Strategy	->	Competitive Advantage	0.208	0.207	0.047	4.450	0.000	0.114:0.295	0.043	1.067
Omni-Channel Distribution Strategy	->	Inter-seller coordination	0.250	0.250	0.052	4.821	0.000	0.144:0.348	0.067	1
			β	**μ**	**α**	**T-value**	**P values**	**Bca**		
Omni-Channel Distribution Strategy	- >	Inter-seller coordination - >	Competitive Advantage	-0.045	-0.045	0.017	2.711	0.007	-0.084: -0.018		
			β	**μ**	**α**	**T-value**	**P values**	**Bca**		
Inter-seller coordination	->	Competitive Advantage	-0.181	-0.182	0.055	3.296	0.001	-0.284: -0.069		
Omni-Channel Distribution Strategy	->	Competitive Advantage	0.163	0.162	0.044	3.688	0.000	0.072: 0.245		
Omni-Channel Distribution Strategy	->	Inter-seller coordination	0.250	0.250	0.052	4.821	0.000	0.144: 0.348		
Predictive criteria			**R2**	**Adjusted R2**	**Q2**					
Inter-seller Coordination			0.063	0.06	0.058					
Competitive Advantage			0.057	0.052	0.021					

4.6 Structural Model, PLS-SEM for Competitive advantage

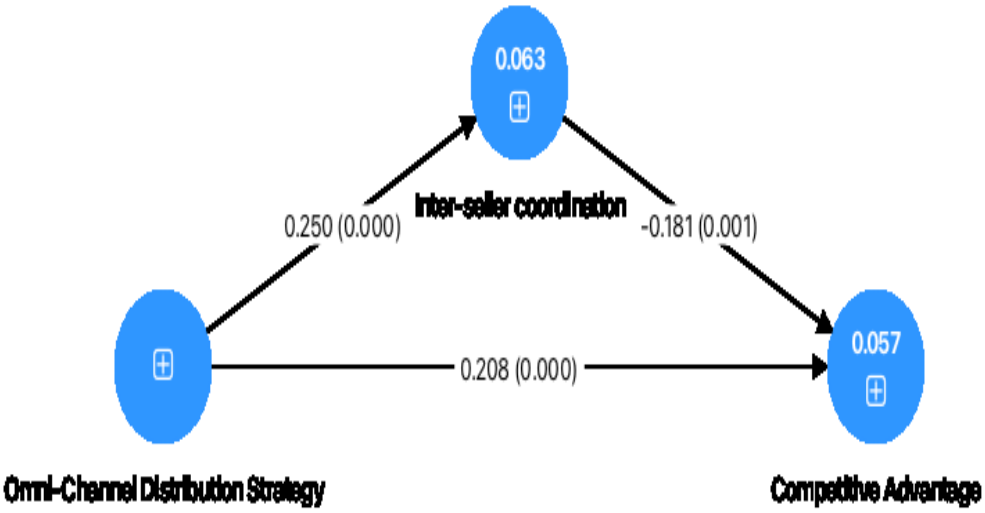

Figure 4.1: Structural Model for Competitive Advantage

The results presented in Figure 4.1 indicate the mediating effect of Inter-Seller Coordination on the relationship between Omni-Channel Distribution Strategy and Competitive Advantage among second-hand clothing traders in Uganda's informal sector. The findings show that Omni-Channel Distribution Strategy has a positive and statistically significant direct effect on Competitive Advantage, with a path coefficient of $\beta = 0.208$ and a p-value of 0.000. This implies that the adoption of omni-channel strategies such as combining online, mobile, and physical sales channels enhances the overall competitiveness of second-hand clothing traders by improving accessibility, customer convenience, and market reach. Furthermore, the path from Omni-Channel Distribution Strategy to Inter-Seller Coordination is also positive and statistically significant ($\beta = 0.250$, $p = 0.000$). This finding suggests that omni-channel strategies encourage greater coordination among traders, particularly in areas such as information sharing, supplier communication, and logistics collaboration. The results therefore indicate that the integration of multiple distribution channels fosters stronger networks and operational alignment within the trading ecosystem.

However, the relationship between Inter-Seller Coordination and Competitive Advantage reveals a negative but statistically significant effect ($\beta = -0.181$, $p = 0.001$). This result implies that while coordination among traders exists, it does not necessarily enhance competitiveness; rather, excessive coordination may reduce individual trader differentiation and innovation, leading to reduced competitive advantage. This could occur because traders who share information and pricing strategies too openly may lose their unique market positions, resulting in similar customer offerings and reduced rivalry-driven innovation.

The mediation analysis therefore indicates that Inter-Seller Coordination partially mediates the relationship between Omni-Channel Distribution Strategy and Competitive Advantage. Although omni-channel strategies promote coordination among traders, the mediation effect weakens the direct positive relationship between omni-channel distribution and competitiveness. This means that while omni-channel adoption independently improves competitiveness, the inclusion of coordination as a mediating factor introduces a slight negative effect on the overall relationship. Consequently, coordination plays a partial and negative mediating role, suggesting that collaboration among informal traders, if not strategically managed, can inadvertently limit individual trader performance.

Overall, the findings highlight that omni-channel distribution is a key driver of competitiveness among informal second-hand clothing traders, while inter-seller coordination must be approached carefully to balance collaboration and individual market differentiation. The model confirms the statistical significance of all paths, as all p-values are below 0.05, reinforcing the reliability of the tested relationships. These results provide valuable insights into how digital and collaborative strategies interact to influence market performance within Uganda's informal retail sector.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides discussion of the results in line with the study objectives and draws conclusions therefore making recommendations and suggestions to future research.

5.2 Summary of Findings

The purpose of this study was to examine the mediating role of inter-seller coordination in the relationship between omni-channel distribution and competitive advantage among second-hand clothing sellers in Uganda's informal sector. Specifically, the objectives were:

(i) to examine the relationship between omni-channel distribution and competitive advantage;

(ii) to assess the relationship between omni-channel distribution and inter-seller coordination;

(iii) to examine the relationship between inter-seller coordination and competitive advantage; and

(iv) to assess the mediating role of inter-seller coordination in the relationship between omni-channel distribution and competitive advantage.

A cross-sectional survey design with a quantitative approach was adopted. Data were collected from 350 respondents using self-administered questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings revealed that omni-channel distribution positively influenced both competitive advantage and inter-seller coordination. However, inter-seller coordination negatively influenced competitive advantage and acted as a negative partial mediator between omni-channel distribution and competitive advantage. This indicates that while omni-channel distribution strengthens competitiveness and fosters coordination among sellers, excessive coordination reduces

individual differentiation and limits competitive edge in the informal second-hand clothing sector. The findings therefore demonstrate the complex dynamics in Uganda's informal trade environment, showing that while omni-channel distribution enhances both coordination and competitiveness, over-coordination can weaken sellers' ability to sustain a unique advantage.

5.3 Relationship between Study Variables

In the first chapters, evidence was presented on the relationships among omni channel distribution, inter seller coordination and competitive advantage. This section provides a detailed discussion of those findings in line with the research objectives, beginning with the first objective and progressing systematically through the second third and fourth objectives.

5.3.1 Omni channel distribution and Competitive Advantage

The first objective sought to examine the relationship between Omni-channel distribution and competitive advantage among second-hand clothing sellers in Uganda. The findings revealed a positive and significant relationship, indicating that sellers who adopt diverse channels such as market stalls, wholesalers, and online platforms are more likely to gain competitive advantage through increased customer reach, flexibility, and improved responsiveness. This implies that Omni-channel distribution is a critical driver of competitiveness in the informal clothing sector. The study found a positive and significant relationship between Omni-channel distribution and competitive advantage. This finding is consistent with the Resource-Based View (RBV), which posits that firms gain sustainable competitive advantage by leveraging valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). Omni-channel strategies enable sellers to combine physical stalls with digital platforms (e.g., WhatsApp, Facebook, Jumia), thereby increasing market reach and customer satisfaction. This integration enhances efficiency and customer

responsiveness, which are critical drivers of competitiveness in dynamic markets (Verhoef et al., 2015).

However, the weak explanatory power suggests that Omni-channel distribution alone does not sufficiently explain competitiveness. This aligns with findings by Cao and Li (2015), who argue that while Omni-channel strategies create value, other capabilities such as supply chain reliability, pricing strategies, and customer loyalty are necessary for sustainable competitive advantage.

5.3.2 Omni Channel distribution and Inter seller Coordination

The second objective aimed to assess the relationship between Omni-channel distribution and inter-seller coordination. Results showed a significant positive association which resonates with Transaction Cost Economics (TCE) (Williamson, 1985), which argues that coordination helps actors minimize costs associated with information asymmetry and uncertainty. Sellers leveraging Omni-channel platforms often rely on collective action to source stock, share market information, and collaborate on logistics**.**

Furthermore, the finding is supported by Network Theory (Powell, 1990), which emphasizes the role of inter-organizational ties in facilitating resource access and cooperation. In Uganda's informal second-hand sector, sellers using online platforms frequently share updates on suppliers and market trends, which fosters stronger relational ties. These results indicate that Omni-channel adoption facilitates collaboration by improving communication flows and reducing transaction barriers.

5.3.3 Inter seller Coordination and Competitive Advantage

The third objective focused on examining the relationship between inter-seller coordination and competitive advantage. Contrary to expectations, the study established a negative and significant relationship while literature often emphasizes the benefits of coordination in reducing transaction costs and promoting innovation (Simatupang & Sridharan, 2005), this study that in informal markets, coordination may undermine competitiveness.

This result reflects the realities of Uganda's second-hand clothing sector, where excessive coordination often leads to reduced differentiation, price uniformity, and dependency. Sellers coordinating too closely may lose their ability to innovate or compete individually, thereby weakening their competitive edge. The finding aligns with the view of Coopetition Theory (Bengtsson & Kock, 2000), which argues that while collaboration is beneficial, excessive cooperation can blur competitive boundaries and harm market positioning. Thus, this study contributes theoretically by showing that inter-seller coordination may be detrimental in highly competitive and unregulated informal markets.

5.3.4 Mediating role of inter seller coordination in the relationship between Omni channel distribution and Competitive Advantage

The fourth objective sought to assess the mediating role of inter-seller coordination in the relationship between Omni-channel distribution and competitive advantage. The results confirmed a negative partial mediation effect. This means that while Omni-channel distribution directly strengthens competitive advantage, its indirect influence through inter-seller coordination reduces competitiveness. The findings highlight a paradox: coordination, though valuable for efficiency, weakens the competitive benefits derived from Omni-channel strategies when applied in highly informal and competitive market environments. Further it highlights that, inter-seller coordination negatively mediates the relationship between omni-channel distribution and competitive advantage highlights the Contingency

Theory perspective (Donaldson, 2001). The theory argues that organizational outcomes depend on the alignment between strategies and environmental conditions. In this case, while omni-channel distribution is beneficial, the informal sector context characterized by weak regulation, low trust, and rivalry makes coordination counterproductive.

This is a significant theoretical contribution because prior studies often portray coordination as universally beneficial (Zhao et al., 2019). By demonstrating that coordination can weaken competitiveness in informal economies, this study challenges existing assumptions and extends knowledge on Omni-channel strategies in under-researched contexts.

5.4 Conclusion

The study concludes that Omni-channel distribution is a critical determinant of competitiveness in Uganda's second-hand clothing sector, as it improves market reach, customer access, and responsiveness. It also concludes that while Omni-channel distribution promotes inter-seller coordination, the coordination itself negatively affects competitive advantage, showing that over-reliance on cooperation among sellers can dilute differentiation. Furthermore, inter-seller coordination partially and negatively mediates the relationship between Omni-channel distribution and competitive advantage, highlighting the structural and relational challenges faced by sellers in informal markets. Overall, the findings indicate that competitiveness in informal trade requires a balance between leveraging Omni-channel strategies and maintaining distinctiveness in market offerings.
From the findings and discussion, the following conclusions are drawn in summary:

Omni-channel distribution significantly enhances competitive advantage, confirming its role as a strategic resource for informal second-hand clothing sellers in Uganda.

Omni-channel distribution positively influences inter-seller coordination, indicating that digital and physical integration fosters collaborative practices.

Inter-seller coordination weakens competitive advantage in the informal sector, as coordination reduces differentiation and increases dependency among sellers.

Inter-seller coordination negatively mediates the omni-channel–competitive advantage relationship, suggesting that while omni-channel adoption is beneficial, its effectiveness is reduced when mediated by coordination.

The weak explanatory power of the model implies that other contextual factors such as supplier reliability, government policy, customer trust, and pricing strategies are critical to achieving competitive advantage.

5.5 Recommendations

The study recommends that second-hand clothing sellers adopt balanced Omni-channel distribution strategies by diversifying into both physical and online channels to improve accessibility and customer engagement. Sellers should practice controlled coordination by focusing on information sharing, joint procurement, and logistical efficiency, while avoiding excessive price synchronization and product homogenization that reduce competitiveness. Trade associations and policymakers should provide training programs and capacity-building initiatives to enable small traders to utilize digital platforms and e-commerce tools effectively. In addition, the government should support informal markets through affordable credit access, improved digital infrastructure, and policies that enhance innovation and fair competition.

5.5.1 Second-hand Clothing Sellers

Adopt Omni-channel strategies strategically by combining market stalls with social media and e-commerce to maximize market reach while retaining individual distinctiveness.

Pursue differentiation through branding, quality assurance, and customer service, which will help sustain competitiveness despite sector-wide coordination.

Balance cooperation and competition (Coopetition) by collaborating in sourcing and logistics but competing in pricing, marketing, and customer experience to avoid over-dependence.

5.5.2 Policymakers and Support Agencies

Promote digital literacy and e-commerce training for informal sellers to strengthen their capacity to exploit Omni-channel opportunities.

Formulate supportive policies that regulate competition fairly while encouraging innovation and differentiation within informal markets.

Facilitate access to affordable finance and logistics infrastructure, enabling sellers to scale their businesses without over-relying on peer networks.

5.5.3 Theoretical Contributions

This study makes a significant contribution to theory by extending and contextualizing the Resource-Based View (RBV) and Transaction Cost Theory (TCT) within the informal trade environment of a developing economy. Previous studies have largely applied these theories to formal manufacturing and service sectors, often overlooking small-scale, informal traders who operate with limited resources and in less regulated markets. By examining omni-channel distribution and inter-seller coordination among second-hand clothing traders in Uganda, this study adds new insights into how strategic resources and coordination mechanisms function in resource-constrained and highly competitive informal markets.

From the perspective of the Resource-Based View, the results show that omni-channel distribution acts as a vital strategic capability that helps traders strengthen their market

position. Through the integration of physical outlets, social media platforms, and mobile-based transactions, traders are able to utilize both tangible and intangible resources more effectively. This finding extends the RBV by illustrating how resource orchestration—the ability to creatively combine limited resources can generate competitive advantage even in low-capital environments. Traditional RBV literature (Barney, 1991) emphasizes firm-specific assets such as technology, innovation, and knowledge; however, this study demonstrates that similar principles apply in informal markets where traders rely on social capital, mobile technology, and customer networks to achieve competitiveness (Mwangi & Wanjiru, 2024).

The study also strengthens Transaction Cost Theory by providing evidence that coordination among traders can have both beneficial and adverse effects. While TCT suggests that collaboration reduces transaction costs by improving trust, information sharing, and collective problem-solving (Williamson, 1981), the findings of this study show that too much coordination can reduce individual competitiveness. When traders share too much information or adopt similar strategies, they risk losing their distinct market positions, leading to imitation and reduced innovation. This finding refines TCT by suggesting that coordination has an optimal level beyond which it may lead to inefficiency or loss of differentiation, introducing the concept of coordination costs in informal settings.

In addition, this research contributes to theory by linking RBV and TCT into an integrated framework. While RBV explains how firms use internal resources to achieve advantage, TCT focuses on how external relationships are managed to reduce costs. The study demonstrates that sustainable competitiveness arises from a balance between internal resource utilization and external coordination efficiency. This integration provides a more comprehensive understanding of competitiveness in informal and developing market

settings, where firms rely on both their own resources and their ability to collaborate efficiently with others.

Furthermore, the study broadens the theoretical application of these models to the digital and informal economy, where conventional assumptions about formal governance, contracts, and infrastructure are often absent. The findings reveal that informal traders also apply structured, strategic behaviours consistent with these theories though through informal mechanisms such as trust-based relationships, mobile communication, and social networks. This shows that the RBV and TCT remain relevant in contexts characterized by flexibility, limited capital, and high dependence on social relationships.

In conclusion, this study deepens theoretical understanding in three main ways. First, it extends the Resource-Based View by showing that resource integration and creativity can lead to competitiveness even in informal markets. Second, it advances the Transaction Cost Theory by highlighting that excessive coordination may create new inefficiencies or coordination burdens. Finally, it bridges the two theories into a unified framework that captures how competitive advantage in informal sectors depends on both effective resource deployment and efficient relationship management.

5.6 Limitations of the Study

This study was limited by its cross-sectional research design, which restricts the ability to establish causality between variables. The reliance on self-reported questionnaire data may also have introduced response bias, affecting the accuracy of the results. Furthermore, the study was confined to second-hand clothing sellers in Kampala, Mukono, and Wakiso,

limiting the generalizability of findings to other sectors or regions. The measurement of competitive advantage showed weak convergent validity, indicating that the construct could be refined further for better accuracy. These limitations suggest that while the results provide valuable insights, they should be interpreted with caution.

5.7 Areas for Further Study

Future research should adopt longitudinal designs to track the effects of Omni-channel distribution and coordination on competitive advantage over time.

Comparative studies across different informal trade sectors, such as food markets or electronics, would provide broader insights into whether the negative effect of coordination on competitiveness is sector-specific or widespread.

Qualitative studies using interviews or focus groups could also capture deeper perspectives on the challenges and dynamics of coordination in informal markets.

Additionally, future studies should investigate moderating factors such as trust, technology adoption, customer preferences, and market turbulence to better explain the complex relationships among Omni-channel distribution, Inter-seller coordination, and competitive advantage.

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APPENDICES

Appendix 1: Questionnaire

Dear Respondent,

I am Ayeyo Mercy, a student of Kyambogo University conducting academic research on "**omni-channel distribution on inter-seller coordination in gaining competitive advantage among second-hand clothing sellers in uganda"**

Thank you for accepting to take part in this survey by answering questions on this research and your replies are much appreciated. They will be anonymous through research and all data will be in secure locations. An academic research report will be written on the findings for the Department of procurement and marketing, Kyambogo University.

SECTION A: BACKGROUND INFORMATION

A01. Gender:

Male	Female
1	2

A02. Owner/manager

Owner	Manager
1	2

A03. Education level:

Secondary (O' level)	Secondary (A' level)	Diploma	Bachelor's	Masters
1	2	3	4	5

A04. Number of years in clothing business:

Less than 5 years	5-10 years	10-15 years	15-20 years	Above 20 years
1	2	3	4	5

A05. Do you use any of the following to sell clothes?

Market stall	Distribution channels like wholesalers, retailers. distributors, direct	Online platforms (e.g., Jumia, Glovo, kikubo online, Whatsapp, Facebook, Instagram)	All
1	2	3	4

A06. Location of operation:

Kampala	Mukono	Wakiso
1	2	3

A07. Nature of the business

Sole proprietorship	Joint venture	Partnership	Cooperative	Other
1	2	3	4	5

SECTION B: OMNI-CHANNEL DISTRIBUTION

In the following sections please state the extent to which you agree or disagree to a particular statement by ticking the appropriate response. Where (1) = Strongly Disagree; (2) = Disagree; (3) = neither agree nor disagree; (4) = Agree and (5) = Strongly Agree

CODE	**Statement**	1	2	3	4	5
	1. Distribution breadth					
B1	I sell through physical locations such as market stalls or shops	1	2	3	4	5
B2	I use WhatsApp to share new stock and take customer orders.	1	2	3	4	5
B3	I sell clothing through a Facebook business page or marketplace group.	1	2	3	4	5
B4	I use Instagram to display and sell clothes.	1	2	3	4	5
B5	I receive customer inquiries or orders via online platforms like phone calls or SMS.	1	2	3	4	5
B6	I sell clothing through an e-commerce platform (e.g., Jumia, Kikubo Online).	1	2	3	4	5
B7	I regularly promote my clothing through more than three of these platforms like Facebook, Instagram, twitter, tiktok	1	2	3	4	5
B8	I reach different customer groups through different selling channels like wholesalers, retailers, distributors	1	2	3	4	5
	2. Distribution depth					
D1	The same clothing items and prices are shown across all the platforms I use.	1	2	3	4	5
D2	Promotions and discounts are the same whether a customer shops online or in person.	1	2	3	4	5
D3	Product information (e.g., size, condition, brand) is consistently displayed across platforms	1	2	3	4	5
D4	Customers can order clothes online and pick them up or try them at my physical outlet.	1	2	3	4	5
D5	Customers can return or exchange items through any platform they choose	1	2	3	4	5
D6	I track and update inventory across all platforms to avoid overselling	1	2	3	4	5
D7	I respond to customer queries consistently across all platforms I use.	1	2	3	4	5
D8	My staff/team (if any) knows how to support customers both online and offline.	1	2	3	4	5
D9	I manage my inventory across platforms effectively	1	2	3	4	5
D10	I update my product information across different channels regularly	1	2	3	4	5

Source: (Ailawadi 2017)

SECTION C: INTER-SELLER–BUYER COORDINATION & INTER-SELLER COORDINATION

In the following sections please state the extent to which you agree or disagree to a particular statement by ticking the appropriate response. Where (1) = Strongly Disagree; (2) = Disagree; (3) = neither agree nor disagree; (4) = Agree and (5) = Strongly Agree

	Statement	1	2	3	4	5
ISBC1	I regularly ask my buyers what types of second-hand clothes they are looking for.	1	2	3	4	5
ISBC2	My buyers and I agree on the best ways to order and deliver items, whether online or in person.	1	2	3	4	5
ISBC3	I allow buyers to pre-order specific second-hand clothes that they need.	1	2	3	4	5
ISBC4	I give buyers updates on new arrivals through phone calls, SMS, or online channels.	1	2	3	4	5
ISBC5	I cooperate with buyers to solve any problems, such as wrong sizes or delayed deliveries.	1	2	3	4	5
ISC1	We often share information about where to get good-quality second-hand clothes with other sellers.	1	2	3	4	5
ISC2	We discuss together how to set fair prices for second-hand clothes.	1	2	3	4	5
ISC3	I work with other sellers to buy second-hand clothes in large quantities to get better deals.	1	2	3	4	5
ISC4	We help each other when there are problems with suppliers or customers.	1	2	3	4	5
ISC5	We share ideas on how to attract more customers using both physical shops and online platforms (such as Facebook or WhatsApp).	1	2	3	4	5

Source: ISC (Adapted from: Cao & Zhang, 2011; Flynn et al., 2010) ISBC (Adapted from: Simatupang & Sridharan, 2005; Wang & Wei, 2007)

SECTION D: COMPETITIVE ADVANTAGE

In the following sections please state the extent to which you agree or disagree to a particular statement by ticking the appropriate response. Where (1) = Strongly Disagree; (2) = Disagree; (3) = Neither agree nor disagree; (4) = Agree and (5) = Strongly Agree

	Statement	1	2	3	4	5
1. PRICE/COST						
PC1	I offer competitive prices	1	2	3	4	5
PC2	I am able to offer prices as low or lower than our competitors	1	2	3	4	5
PC3	I manage my costs better by using different sales channels	1	2	3	4	5
PC4	I spend less on overhead costs due to how low I operate across channels	1	2	3	4	5

PC5	I am able to keep operating costs low while maintaining profitability	1	2	3	4	5
PC6	My pricing helps me attract and retain more customers than competitors	1	2	3	4	5
2. DELIVERY DEPENDABILITY						
DD1	I deliver the kind of clothing needed	1	2	3	4	5
DD2	I deliver customer orders on time	1	2	3	4	5
DD3	I provide dependable delivery	1	2	3	4	5
DD4	My customers are happy with the delivery times I provide	1	2	3	4	5
DD5	My suppliers are dependable in delivering clothing when needed	1	2	3	4	5
DD6	I am able to consistently restock items before they run out	1	2	3	4	5
3. TIME TO MARKET						
TM1	I deliver product to market quickly	1	2	3	4	5
TM2	I am the first in the market to introduce new products when customer taste changes	1	2	3	4	5
TM3	I adjust my product mix faster than other sellers.	1	2	3	4	5
TM4	I have first product development	1	2	3	4	5
TM5	I keep in stock items that are in demand before competitors do.	1	2	3	4	5
4. QUALITY						
QL1	I am able to compete based on quality	1	2	3	4	5
QL2	I offer clothing that are highly reliable	1	2	3	4	5
QL3	I offer clothing that are very durable	1	2	3	4	5
QL4	I offer high quality clothing to customers	1	2	3	4	5
QL5	I have sorting processes to ensure damaged or low-quality stock is not sold	1	2	3	4	5
5. PRODUCT INNOVATION						
PI1	I provide customized clothing	1	2	3	4	5
PI2	I change clothing offerings to meet customer needs	1	2	3	4	5
PI3	I respond well to customer demands for new designs.	1	2	3	4	5
PI4	I experiment with different ways to present or package my stock.	1	2	3	4	5
PI5	I use customer feedback to improve or change my stock selection.	1	2	3	4	5

Source: (Li et al., 2006)

THANK YOU FOR YOUR TIME

Appendix II: Introductory letter

Appendix III: Plagiarism Clearence