

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI**

**INSTITUTE OF DISTANCE LEARNING**

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**THE IMPACT OF INVENTORY MANAGEMENT CAPABILITY ON FINANCIAL  
PERFORMANCE IN THE HOSPITALITY INDUSTRY. THE ROLE OF INNOVATIVE  
CAPACITY**

**BY**

**GAMOR PATRICK**

**BSc BUSINESS ADMINISTRATION (LOGISTICS AND SUPPLY CHAIN  
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## DECLARATION

I hereby declare that this thesis is the result of my original work towards the MSc Procurement and Supply Chain Management and that, to the best of my knowledge, it neither contains material published by another person nor materials which have been accepted for the award of any other degree of the University, except where due acknowledgements have been made in the text.

GAMOR PATRICK

(PG9457521)

Signature

Date

Certified By:

(Supervisor)

Signature

Date

Certified By:

(Head of department, SCIS)

Signature

Date

## DEDICATION

I dedicate this Thesis to my Lovely wife, Mavis Akushika Dovoh, for her relentless support and commitment throughout this thesis. I also dedicate this work to my lovely son: Neriah Dgidula Khamisi Gamor.



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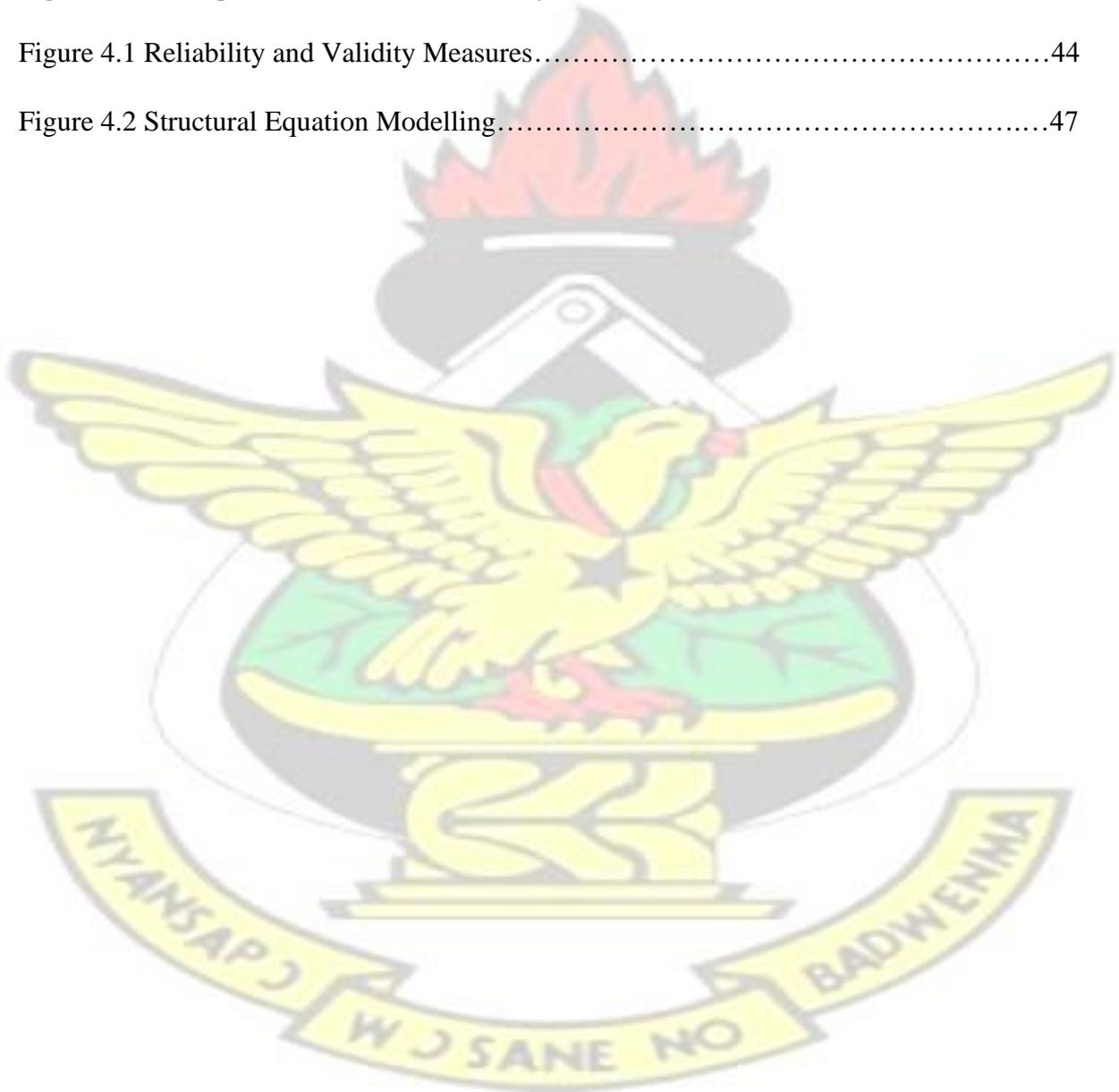
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## Abstract

This study investigated the impact of inventory management capability on financial performance in the hospitality industry in Ghana. Specifically, it examined the moderating role of innovation capacity on the relationship between inventory management and financial performance. A survey was conducted with 109 employees from hospitality firms in the Greater Accra region of Ghana. Inventory management was measured in terms of categorization of inventory, balancing ordering and holding costs, made-to-order systems, periodic and continuous replenishment, computerized inventory data, supplier notification, scientific inventory models, and cost component calculation. Financial performance was assessed based on profit margins, customer loyalty, market share, return on investment, cost efficiency, and revenue growth rate. Innovation capacity was evaluated in terms of service uniqueness, product development, range expansion, technical specification acquisition, R&D training, knowledge creation, business process improvement, and R&D budget allocation. The results showed a significant positive relationship between inventory management and financial performance, indicating inventory management enhances financial outcomes. The findings also revealed a significant positive association between innovation capacity and financial performance, suggesting innovation improves financial results. However, innovation capacity did not significantly moderate the relationship between inventory management and financial performance. The study highlights the important role inventory management and innovation play in driving financial performance in the hospitality sector. It provides insights into how firms can leverage capabilities in these areas to improve profitability, market share, and other financial metrics.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 BACKGROUND TO THE STUDY

Inventory management is a critical aspect of supply chain management, encompassing a range of factors such as stock replenishment, lead time efficiency, inventory carrying costs, asset management, inventory forecasting, valuation, visibility, price forecasting, physical inventory, space utilization, quality management, returns, and demand forecasting (Althaqafi, 2020). Effective inventory management is essential for optimizing operational performance and minimizing total inventory expenses (Beheshti, Clelland, & Harrington, 2020).

Inadequate inventory control systems can result in lower sales, production disruptions, and a failure to meet customer expectations (Masudin et al., 2020). Conversely, excessive inventory levels can lead to increased holding and storage costs, as well as the opportunity cost of tying up funds that could be invested elsewhere (Shockley & Fetter, 2015). Therefore, achieving optimal inventory levels is crucial for balancing these competing objectives, and it remains an ongoing process influenced by evolving business needs and external conditions.

To achieve successful inventory management, various strategies like the just-in-time (JIT) system and material requirement planning are employed (John, Etim, & Ime, 2015; Shin, Wood, & Jun, 2016a; Chebet & Kitheka, 2019). JIT enhances efficiency and reduces waste by aligning production with demand, thereby freeing up committed capital (John, Etim, & Ime, 2015). Material requirement planning aids in accurately forecasting inventory needs and ensures the efficient flow of raw materials within an organization (Mulandi & Ismail, 2020).

Effective inventory management contributes to sustainable competitive advantage and improved overall performance (Mbah, Obiezekwem, & Okuoyibo, 2019a). It reduces inventory storage costs by maintaining the right amount of inventory in the right place, at the right time, and at the right price, thereby optimizing resource allocation (Lin, Liang, & Zhu, 2018a).

In today's dynamic market, innovation plays a pivotal role in maintaining a competitive edge (Slater, Hult, & Olson, 2010). Organizational innovation capacity fosters the continuous generation of innovations to adapt to changing market conditions (Gloet & Samson, 2016). Hence, innovative capabilities have become integral to modern inventory management strategies, as they offer advantages such as lower transaction costs, enhanced sourcing options, and improved inter-organizational coordination (V.W. and Namusonge, 2015).

Financial performance, as measured by metrics like capital adequacy ratio, liquidity, leverage, solvency, and profitability, reflects a company's ability to manage and govern its resources (IAI, 2016). The financial health of a company during a specific period is contingent on the inflow and outflow of funds.

The present research employs the Resource-Based Perspective theory to investigate how inventory management capability influences financial performance in the context of the hospitality industry, with a particular emphasis on the role of innovative capacity. The hospitality industry in the Greater Accra region serves as the focal point of this study. This research contributes to the existing inventory management literature by filling critical gaps and offers practical guidance to supply chain managers aiming to enhance their logistics operations and competitiveness.

## 1.2 PROBLEM STATEMENT

The volatility of the hospitality industry underscores the critical importance of effective inventory control as a strategic imperative for improving financial performance in today's global landscape (Atnafu and Balda, 2018). In this dynamic sector, the quantity of inventory a company maintains can significantly influence its susceptibility to uncertainty costs associated with inventory holding. Maintaining higher inventory levels exposes a business to the risks of product obsolescence, deterioration, and escalations in transporting and storage costs (Chan and Prakash, 2012).

Over recent years, extensive research has been conducted to explore the intricate relationship between inventory management practices and financial performance (Shin, Wood and Jun, 2016b; Singh and Verma, 2018; Hashmi et al., 2021). These studies have consistently revealed a substantial and positive correlation between adept inventory management capabilities, such as just-in-time and material need planning, and enhanced financial performance (Shin, Wood and Jun, 2016b; Mbah, Obiezekwem and Okuoyibo, 2019b).

Moreover, Orobia et al. (2020a) delved into the impact of inventory management and managerial competence on the financial performance of small businesses, highlighting their significant associations. Additionally, Saad et al. (2018) emphasized the pivotal role of a vendor-managed inventory system (VMI) in averting failure, advocating for VMI as a valuable business tool to bolster competitiveness in the marketplace. Furthermore, they suggested that future research could explore the implications of sustainable warehouse management systems as an independent variable.

Despite the abundance of research on inventory management's relationship with competitive advantage, operational performance, and organizational performance, there has been a

conspicuous gap in the literature concerning the introduction of intervening or moderating variables to enhance our understanding of these relationships. In response to this gap, this study aims to introduce innovation capacity as a moderating variable in the relationship between inventory management capability and financial performance within the Ghanaian hospitality industry. This innovative approach seeks to shed light on how inventory management practices can be further optimized to positively influence financial performance, considering the specific context of Ghana (Atnafu & Balda, 2018; Mbah et al., 2019; Mulandi & Ismail, 2018).

It is worth noting that, despite the wealth of research on inventory management in broader contexts, there is a scarcity of studies that specifically address the role of inventory management capability in shaping financial performance, particularly within the unique context of the hospitality industry in Ghana. This research endeavor aims to bridge this gap by providing valuable insights into the intricate relationship between inventory management practices, innovation capacity, and financial performance, thereby contributing to a more comprehensive understanding of strategic management in the Ghanaian hospitality sector.

### **1.3 OBJECTIVES OF THE STUDY**

The study examines the relationship between inventory management and financial performance through innovation capacity. The specific objectives include:

1. To examine the nature of the relationship between inventory management and financial performance in the hospitality industry
2. To assess the nature of the relationship between innovation capacity and financial performance
3. To ascertain the influence of innovation capacity on the relationship between inventory management and financial performance.

### **1.4 RESEARCH QUESTIONS**

1. What is the nature of the relationship between inventory management and financial performance?
2. What is the nature of the relationship between innovation capacity and financial performance?
3. How does innovation capacity influence the relationship between inventory management and financial performance?

## 1.5 SIGNIFICANCE OF THE STUDY

This research provides two major contributions: theory and practice, in analysing the moderating influence of innovation on the link between inventory management and financial success.

Theoretically, this research fills gaps in the literature on inventory management by using innovation as a moderator variable. The study emphasizes that, while effective inventory management enables firms to achieve improved financial performance such as lower costs, higher financial turnover, higher financial capacity, higher innovation, and higher quality, the adoption of inventory management systems would seek an organization's inventory management having even greater impacts on its financial performance. Future research in similar fields may so use and refer to the model developed in this study.

The research will also be valuable for supply chain managers looking to optimize their inventory levels, minimizing stockouts and lowering inventory holding costs. The in-depth explanation of inventory management approaches such as economic order quantity will compel supply chain managers to minimize the cost of ordering and holding, ultimately lowering the total cost of the organization. Furthermore, with JIT, supply chain managers must verify that all purchased goods are of the highest quality, hence boosting the organization's total quality.

## **1.6 OVERVIEW OF RESEARCH METHODOLOGY**

A descriptive research strategy, namely a survey technique, would be used by the researcher. The research focused on hospitality businesses in the Greater Accra Municipality. This study would use a quantitative approach to research, which involves formulating and evaluating hypotheses. Questionnaires would be utilized to collect data from these organizations' one hundred and ten (110) workers. To choose the 110 respondents from the target demographic, simple random sampling would be employed. IBM SPSS would be used to analyse the data. This would comprise descriptive as well as inferential analysis.

## **1.7 SCOPE OF THE STUDY**

Geographically, the scope of the study is focused only on hospitality companies operating within the Greater Accra Municipality. From a conceptual point of view, the scope of the study is limited to inventory management, innovation, and financial performance.

## **1.8 ORGANISATION OF THE THESIS**

The research is organized into five chapters. The first chapter examines the study's background, the issue statement, the research goals, the research questions, the study's relevance, the scope of the investigation, an overview of the methodology, and the study's organization. The second chapter provides a literature analysis on inventory management, innovation, and financial success. A conceptual review, a theoretical framework, an empirical review, and the formation of ideas and hypotheses are all part of it. The methodology of the investigation is discussed in Chapter 3. It includes the study's population, sample size and sampling method, data collection procedures, data processing, reliability and validity analyses, and ethical problems. The fourth chapter is dedicated to data analysis and interpretation of the results. It includes descriptive and

inferential analytic results, as well as a discussion of the findings. The fifth chapter summarizes the findings, gives suggestions, draws conclusions, and proposes further study.

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## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

The literature on inventory management, innovation, and financial performance is reviewed in this chapter. The conceptual review, theoretical framework, empirical framework, and conceptual framework are all included in this chapter. The definitions of the study's variables are provided in the conceptual overview. The theoretical framework describes the hypotheses that will be investigated. The past investigations on the study's variables are included in the empirical review. The conceptual framework depicts the link between the variables in the research.

#### **2.2 CONCEPTUAL REVIEW**

Conceptual review is a methodology wherein research is conducted by observing and analysing already present information on a given topic. This section provides insights into the study's constructs: inventory management, innovation and financial performance.

##### **2.2.1 Inventory management**

Inventory management, according to Atnafu & Balda, (2018), is a framework that organizations employ to regulate their inventory interest. It comprises keeping track of and monitoring stock levels, forecasting future demand, and selecting when and how to organize deliveries. It is necessary to safeguard the regular and planned production flow from the random interruption of running out of resources or commodities at multiple places within a supply network. Inventory management considers replenishment lead time, carrying costs,

asset management, inventory forecasting, valuation, future inventory price forecasting, physical inventory, visibility, available inventory space, quality management, replenishment, returns and defective goods, and demand forecasting.

Inventory management, according to V.W. & Namusonge, (2015) encompasses all activities involved in developing and managing inventory levels of raw materials, semi-finished materials (work-in-process) and finished goods to ensure adequate supplies and minimize the costs associated with over- or under-stocking. The major purpose of inventory management and control, according to (Agù and Nnate, 2016) is to advise managers of how much of an item to reorder, when to reorder it, how often orders should be made, and the appropriate amount of safety stock to prevent stockouts. As a result, the overall goal of inventory management is to have what is needed while minimizing the number of times one is out of stock. Inventory management is a constant activity that is impacted by forecasts and product prices and should be possible within the cost structure and overall strategy of the company.

Shockley & Fetter, (2015), posited that the primary goal of inventory management is to balance the conflicting economics of not holding too much stock to tie up capital and avoid incurring costs for storage, spoilage, pilferage, and obsolescence on the one hand, and avoiding the cost of stock out on the other. If a manufacturer's critical inventory item is out of supply, production may be halted.

Inventory management, according to Masudin et al. (2020) comprises planning and control. The planning requires calculating ahead of time: i) how many items to purchase; and ii) how often (periodicity) we order them in order to maintain overall source-store sink coordination in an economically effective way. (ii) How often (periodicity) do we want them to maintain overall stock coordination in a cost-effective manner? The control component (stock control)

requires sticking to the approach set during the planning stage in order to attain the aforementioned aim. This might entail reviewing stock levels on a regular basis and choosing what to do depending on the information gathered and appropriately processed. Because holding down cash in excess inventory is expensive, every organization's management must strive for optimum inventory investment.

Inventory control, according to Prasad et al. (2019) increases profitability by lowering material storage and handling expenses Inventory management is the process of making supplies of the proper quality and quantity accessible as required, while accounting for the scarcity economics, ordering cost, purchase price, and working capital.

Inventory control, according to Fernández-López et al. (2020), has an impact on the degree of material stockholding Material managers may carry out an accurate and efficient manufacturing organization operation by decoupling a specific portion of the whole process. The typical control over order size, order scheduling, and raw material amounts remaining in the shop at any one moment is known as materials control. It entails reviewing warehouse stock and issuing stock. Managers must continually maintain an optimal stock level in order to maximize revenues and minimize expenditures. It is critical to prevent both overstocking and understocking.

Inventory is retained for a variety of reasons, according to (Sarkar & Mahapatra, 2017). Inventories may be held in order to improve production scheduling, smooth output in response to variable sales, decrease stockout costs, speculate on or hedge against price fluctuations, reduce buying costs by purchasing in bulk, and so on. A strong inventory management system may help a business save a significant amount of money. Inventory control is critical in practically every manufacturing or distribution operation. These firms' ultimate success is

usually contingent on their ability to provide the appropriate things at the right time and in the right location. Failure to have the appropriate items in the right location at the right time usually results in missed sales, revenue, and customers.

A robust inventory system boosts customer trust, which leads to repeat purchases. Inventory management systems are most widely used in industrial environments, where their utility and economic benefit have been shown. To provide operational reliability, scheduling flexibility, and fluctuations in raw material, delivery time, and purchase order size, inventory is maintained on hand (Shin et al., 2016).

An inventory system, according to Mbah et al. (2019) develops operational standards and an organizational structure for stock management. A competent inventory management system comprises calculating how much inventory to order and when to order it, as well as monitoring inventory items. Any organization's inventory selection is influenced by current stock levels, expected demand, lead time and lead time variation, inventory holding costs, ordering expenditures, and shortfall costs.

Installing a reliable inventory control system is critical for every company. The availability of any stock or resource employed by an organization is referred to as inventory. An inventory system gathers and analyzes inventory levels, determining the appropriate quantity to retain, the size of orders to place, and when to refill stock. Inventory control is the process of monitoring goods storage, distribution, and accessibility to maintain appropriate supply while avoiding excessive surplus Pillai, (2022).

### 2.2.2 Financial Performance

Firm performance, as defined by Avci, (2013) represents the financial outcomes from a specified period as reported in the organization's Statement of Revenues and Expenses. Sohn & Lee, (2013) suggested that a competitive advantage over other organizations in the industry provides for higher profits. According to Sohn & Lee, (2013), this can be achieved through distinguishing the company through superior efficiency, quality, innovation, and customer responsiveness. In turn, these factors lead to differentiation, lower costs, and increased value to the customer and investors. The culminating result is a greater profit margin.

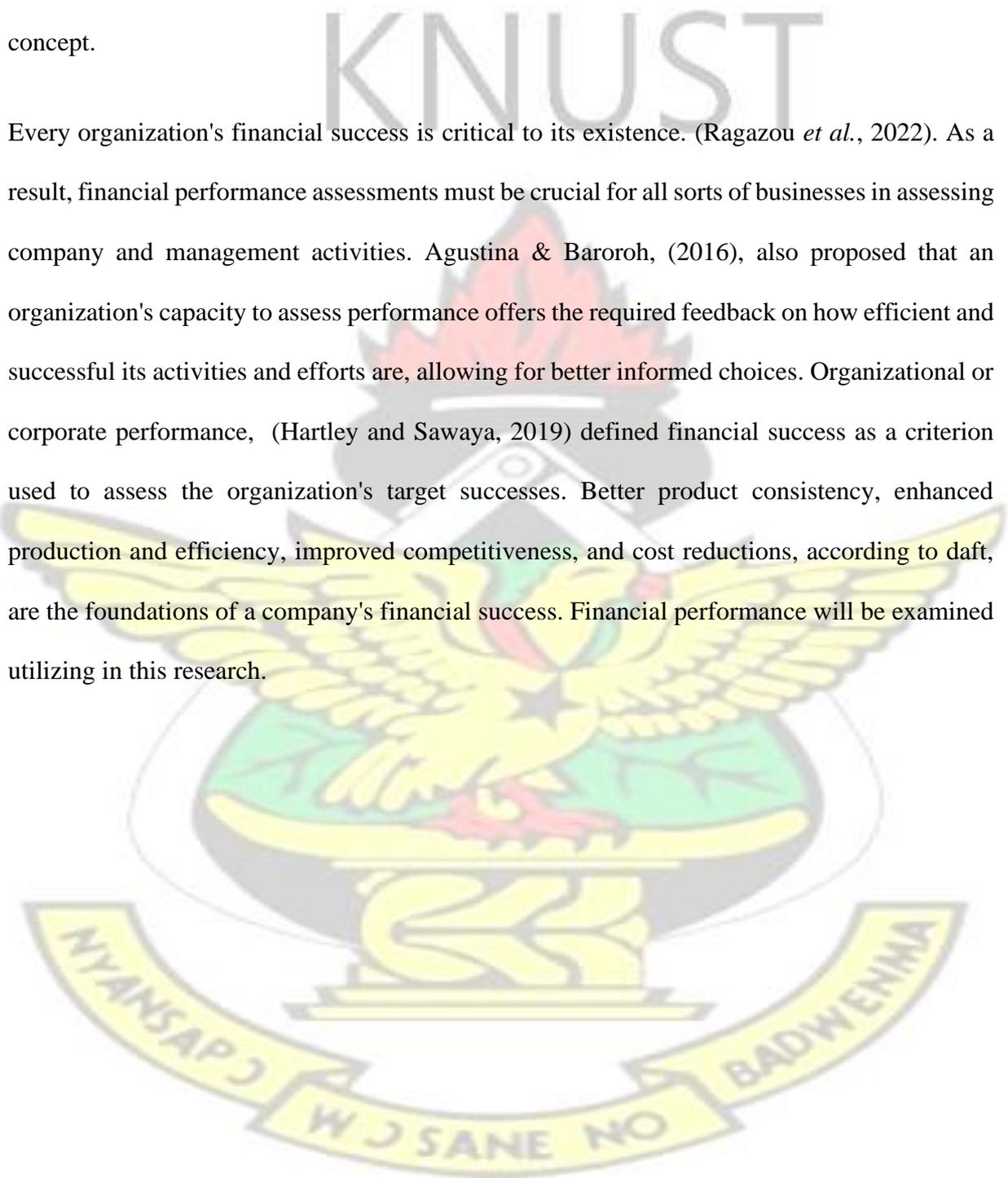
According to Mohajane et al., (2021) financial performance is the attainment of a company's financial capacity over a certain time period, as assessed by capital adequacy, liquidity, solvency, efficiency, leverage, and profitability.

Zhou et al. (2022) also posited that financial performance is the capacity of the firm to manage and govern its own resources. Cash flow, balance sheet, profit-loss, and capital change may serve as the foundation for business decision-making. It is critical to comprehend basic and technical analysis, as well as finance to understand the company's financial behaviour via economics, financial management, and accounting.

According to (Agustina and Baroroh, 2016), the increase in firm value is due to shareholders' capital optimization, which is often assessed in terms of Price to Book Value (PBV). This ratio reveals whether purchasers may acquire shares at a premium above or below the nominal value. The larger a company's value, the richer its shareholders. As a result, the value of the firm in the eyes of consumers and borrowers is crucial since it impacts their choice to participate in and lend to the company.

Financial performance, according to Miceli et al., (2021), is an organization's capacity to meet its financial objectives efficiently and effectively. Previous scholars have represented the notion of financial success in a variety of ways in order to identify which metric best fits the concept.

Every organization's financial success is critical to its existence. (Ragazou *et al.*, 2022). As a result, financial performance assessments must be crucial for all sorts of businesses in assessing company and management activities. Agustina & Baroroh, (2016), also proposed that an organization's capacity to assess performance offers the required feedback on how efficient and successful its activities and efforts are, allowing for better informed choices. Organizational or corporate performance, (Hartley and Sawaya, 2019) defined financial success as a criterion used to assess the organization's target successes. Better product consistency, enhanced production and efficiency, improved competitiveness, and cost reductions, according to daft, are the foundations of a company's financial success. Financial performance will be examined utilizing in this research.



## 2.2.4 Innovation Capacity

Managing innovation is becoming a key focus of academics and practitioners (Tekic and Koroteev, 2019). The changing environment and competitive strengths inside the sector and outside the industry force enterprises to prioritize innovation initiatives. As a result, the need is revolutionary rather than evolutionary (Hartley & Sawaya, 2019). According to (Bygstad *et al.*, 2022) a company's innovative capacity is the procedures that utilize its resources to meet and even drive market change. According to Peterson et al. (2021), organizational learning is a source of inventive capacity, with innovation capability defined as a collective effort learned and stable patterns. To increase efficiency, the company regularly establishes and improves its working methods (Peterson et al. 2021). According to Denrell, Fang, and Winter (2016), a company's capacity to recognize strategic possibilities in a changing environment gives a long-term competitive advantage. Fernandez and Rainey (2017) emphasized the importance of management abilities in detecting opportunities in their updated study. Recognizing the importance of management, Maphalla, R.E. (2020) described innovation capacity as the managers' role and capability in developing, expanding, or adjusting an organization's resource base in the face of customer changing needs. Global competitiveness, as characterized by the geographical and organizational dispersion of sources of innovation, manufacture, export, and long-term competitive advantage, requires more than the availability of difficult-to-replicate intellectual assets.

It also needs distinct, difficult-to-replicate dynamic features. Yoo and colleagues (2019), posited that innovation capacity also comprise corporate competences that are difficult to replicate and must adapt to changing customer and technology possibilities. The ability of a corporation to modify its environment, create new goods and processes, and design and execute viable business models is referred to as innovative capacity. An innovative capacity is the

ability to do a certain action or activity, whether it is operational or dynamic. The operational abilities of a corporation enable it to survive in the Yoo and colleagues (2019).

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## **2.3 THEORETICAL FRAMEWORK**

The following hypothesis is discussed in this section: Resource Based View, and the Dynamic Capability Theory.

### **2.3.1 The Resource Based View**

From the perspective of the Resource-Based View (RBV), an organization's degree of success hinges primarily on its resources and its ability to effectively utilize these resources to establish and maintain a competitive advantage over time (Ciszewska-Mlinarič and Wasowska, 2015). Essentially, this viewpoint underscores the pivotal role that resources play in achieving greater organizational success. The term "firm resources" encompasses all the assets, capabilities, organizational processes, characteristics, information, knowledge, and other elements that a company employs when devising and executing strategies to enhance its effectiveness and efficiency (Donnellan and Rutledge, 2019).

As indicated by Miceli et al. (2021), these resources can be classified into two primary categories: tangible resources (also referred to as physical resources) and intangible resources (non-physical resources). The RBV is built upon two fundamental assumptions: first, that resources are distributed unevenly among different firms, and second, that this variation between firms can persist over a substantial period because valuable resources are not easily transferable from one firm to another without incurring significant costs. Proponents of the RBV argue that a firm's resources can lead to sustained high performance if these resources meet specific criteria, namely, they should be valuable, rare, difficult to replicate, and irreplaceable.

The Resource-Based View (RBV) framework is of utmost significance within the context of this study. Its significance lies in its assertion that a sustainable firm's performance is intricately tied to the distinctive resources and capabilities it possesses, which are developed and nurtured over time through the cultivation of core competencies. In essence, the RBV suggests that a company's competitive advantage and long-term success depend on its ability to leverage unique resources and competencies to outperform competitors.

Within the scope of our research, we have formulated a working hypothesis that places owner-managers of small businesses at the center of attention. We propose that when these owner-managers acquire and apply essential skills, they are better positioned to drive improvements in inventory management practices. This, in turn, has a direct and positive impact on the financial performance of their companies. Let's delve deeper into these interconnected concepts:

The RBV posits that firms can achieve sustained competitive advantage by developing and utilizing unique, valuable, and non-substitutable resources and capabilities. In the context of small businesses, this could include specialized knowledge, relationships, technologies, or even the skills and expertise of the owner-managers themselves. These resources form the basis for creating a competitive edge.

Unique offerings and core competencies are at the core of the RBV. These distinctive attributes are the result of the firm's resource investments and capabilities that set it apart from rivals. Core competencies represent the collective skills and knowledge within a firm, enabling it to perform certain activities or tasks more effectively than competitors. For small businesses, these might include specific product design, customer service, or operational efficiency.

Our research focuses on the role of owner-managers in small businesses. Owner-managers are key decision-makers, and their skills and competencies are vital resources for the firm. These skills may include leadership, financial management, marketing, or inventory management skills. Acquiring and honing these skills can significantly impact the firm's ability to compete and thrive in the marketplace. Inventory management is a critical aspect of business operations, especially for small businesses. Effective management of inventory levels can lead to reduced carrying costs, minimized stockouts, and improved cash flow. It also ensures that a company can meet customer demand efficiently.

Ultimately, our hypothesis suggests that as owner-managers enhance their skills, particularly in the area of inventory management, they are better equipped to optimize their firm's operations. This optimization can lead to tangible benefits, including increased sales revenue, cost savings, and improved financial performance.

In summary, the Resource-Based View offers a valuable framework for understanding how a firm's unique resources and competencies, including the skills of owner-managers, can drive sustainable competitive advantage and financial success. Our study aims to empirically investigate this relationship and provide insights into how small businesses can harness their internal strengths to enhance their overall performance in the marketplace.

### **2.3.2 Dynamic Capability**

The Dynamic Capability Theory (DCT) is an extension of the RBV that accounts for changing conditions (Aghimien *et al.*, 2022). Profitability, according to the thesis, may be assured in an environment of fast change and technology breakthroughs by perfecting/mastering an organization's own internal technologies, managerial, and organizational processes (Felsberger *et al.*, 2022). Dynamic capabilities are defined by Lekan *et al.* (2020) as the firm's capacity to

integrate, create, and reconfigure internal and external competencies to handle quickly changing circumstances. They relate to an organization's "ability to actively build, expand, or change its resource base (Helfat et al., 2007). The DCT is significant in this research because it describes how companies create firm-specific competences in order to adapt to changes in the business environment, and how this is ultimately connected to the firm's business processes, market positions, and prospects. Ciszewska-Mlinarič & Wasowska, (2015) state that processes cover the way things are done in organizations and play three roles: coordination, learning, and reconfiguration. Positions specify distinct technological endowments, intellectual property, complementary assets, customer base, and its external relationships with suppliers and complementors. hospitality firms operate in a very unpredictable market, with people's tastes and preferences constantly shifting. According to the DCT, such businesses can only prosper in a constantly changing environment if they learn to adapt to the changes.

Based on the RBV, this research infers that differences in management competences may explain differences in financial performance among enterprises. It was suggested in research by Kaawaase et al. (2019) that RBV explains the varying amounts of intellectual capital in explaining variances in a firm's performance. According to the present research, various management competences such as managers' knowledge, skills, and talents impact how inventory is handled, which ultimately indicates the degree of financial success of such organizations.

## 2.4 EMPIRICAL REVIEW

This section reviews prior research on inventory management, innovation and financial performance.

Author and Year	Objective	Findings
Mulandi & Ismail (2018)	Examine inventory management in B2C e-commerce enterprises	Identified challenges in online retail inventory management, including demand variations, reverse logistics, and stock-outs. Highlighted the importance of improved inventory management for higher customer satisfaction.
Mbah et al. (2019)	Explore the influence of inventory management on competitive advantage in manufacturing enterprises	Found that information technology, inventory lead time, inventory control, and inventory control methods play a crucial role in creating a competitive advantage for Kenyan manufacturing firms.
Lin et al. (2018)	Investigate the impact of inventory performance on profitability	Lower inventory levels, measured by inventory-to-sales ratio, positively influenced industry profitability in nine out of fourteen industrial sectors in the United States. Different types of inventories had varying effects on profitability.
Althaqafi (2020)	Emphasize the consequences of	Highlighted risks of production bottlenecks and financial losses due to inadequate capital allocation. In

Author and Year	Objective	Findings
	ineffective inventory management	competitive sectors, ineffective inventory management can lead to irreversible market losses.
Beheshti et al. (2020)	Highlight the role of inventory management in coordinating business operations	Emphasized inventory management's role in balancing supply and demand to ensure customer satisfaction while driving profits.
Atnafu & Balda (2018)	Describe the profitability-enhancing aspect of inventory management	Highlighted the role of inventory management in minimizing material storage and handling costs, ensuring the availability of supplies as needed, and considering factors such as ordering costs and purchase prices.
John et al. (2015)	Emphasize the impact of inventory management on material stockholding	Materials control, including order size, timing, and quantities of raw materials, was identified as crucial. Maintaining an optimal stock level is essential for maximizing profits, minimizing expenses, and avoiding overstocking or understocking.
Chebet & Kitheka (2019)	Explain reasons for holding inventory	Described reasons for holding inventory, including improving production scheduling, accommodating fluctuating sales, hedging against price fluctuations, and cost savings through bulk purchasing.
Nakandala et al. (2017)	Emphasize the practicality and	Highlighted the benefits of inventory management in ensuring operational reliability, scheduling flexibility,

Author and Year	Objective	Findings
	economic benefits of inventory management	and adaptability to variations in raw materials and delivery times.
Orobia et al. (2020)	Elaborate on creating operational rules and an organizational framework for inventory management	Defined a competent inventory management system as one that determines the quantity and timing of inventory orders based on factors like demand, lead time, holding costs, and ordering costs.
Patil and Divekar (2014)	Stress the importance of an efficient inventory control system	Emphasized the role of inventory control systems in gathering and monitoring inventory levels, determining appropriate quantities, specifying order sizes, and replenishing stock as needed.
Boru Godana and Karanja Ngugi (2014)	Emphasize the availability of commodities through inventory management	Described the role of inventory management in ensuring the availability of commodities when and where needed, overseeing material purchase, storage, sale, disposal, or utilization. Encouraged informed decision-making for timely and cost-effective supply.

A stable inventory system increases client confidence, which leads to ongoing consumption. Inventory management systems are most often utilized in industrial situations, where their practicality and economic usefulness have been shown. Inventory is kept on hand to guarantee operational dependability, scheduling flexibility, and variations in raw material, delivery time, and purchase order size (Nakandala et al., 2017).

An inventory system, according to Orobias et al., (2020) creates operational rules and an organizational framework to store and control stock. A competent inventory management system includes deciding how much and when to order inventory products, as well as tracking inventory goods. The inventory choice of any organization is based on existing stock levels, predicted demand, lead time and lead time variation, inventory holding costs, ordering expenditures, and shortfall costs.

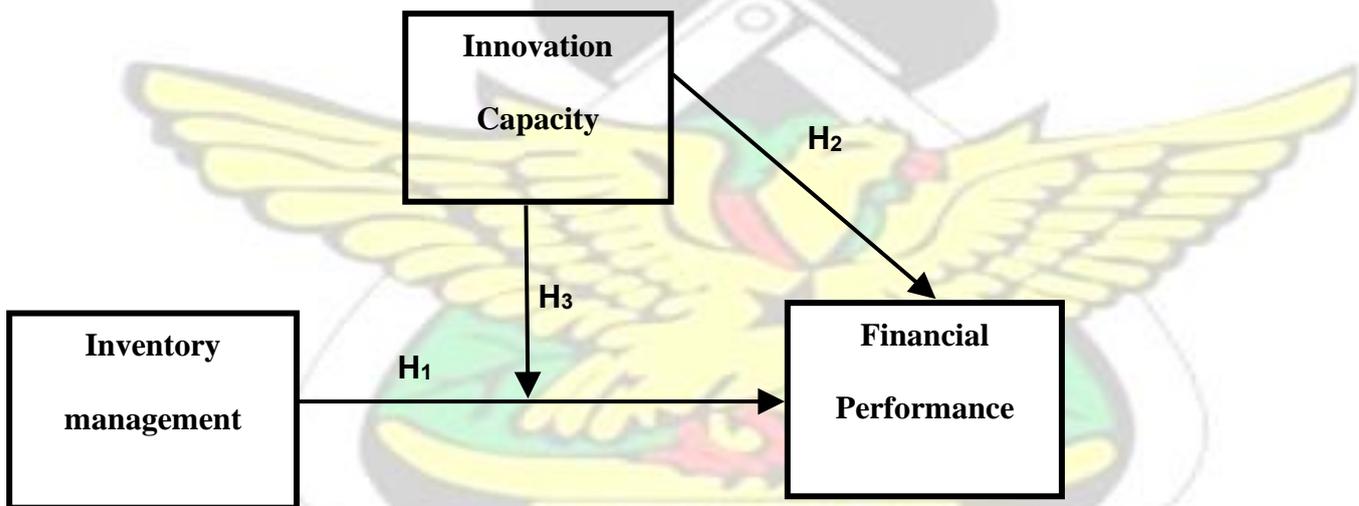
Installing an efficient inventory control system is crucial for every business. Inventory refers to the availability of any stock or resource used by an organization. An inventory system gathers and monitors inventory levels, deciding the proper quantity to keep, the size of orders to place, and when stock should be replenished. Inventory control is the process of monitoring products storage, distribution, and accessibility to ensure an adequate supply without undue surplus (Patil and Divekar, 2014).

Inventory control refers to the availability of commodities whenever and wherever they are required by keeping a sufficient number and diversity of stocks on hand. Inventory management is the collection of interconnected operations necessary for material purchase, storage, sale, disposal, or utilization. Inventory managers must stock up when required and utilise existing storage space wisely in order to exceed available capacity. Inventory assets should be held responsibly. They must adhere to the budget and select what, how, and when to order so that the product is supplied on time and at the lowest feasible cost (Boru Godana and Karanja Ngugi, 2014).

## 2.5 Conceptual Framework

A conceptual framework is a set of ideas and hypotheses that serve as a road map for the inquiry by displaying the link between the research variables. The conceptual framework illustrates how the independent, moderator, and dependent variables are related. Figure 2.1 depicts the direct and indirect connections between the variables.

Figure 2.1 Conceptual framework of the study



Source: Researcher's own Construct, (2022)

### 2.5.1 Inventory management and Financial Performance

In the landscape of contemporary business management, the Resource-Based View (RBV) framework stands as a beacon, illuminating the path to sustained organizational success. It posits that a company's longevity and competitive advantage are intrinsically linked to its

unique resources and capabilities, which evolve over time through the cultivation of core competencies. At the heart of this framework lies the belief that a firm's performance thrives when its distinctive attributes are nurtured and harnessed effectively. In alignment with the RBV framework, our study revolves around the hypothesis that the acquisition of essential skills by owner-managers in small businesses plays a pivotal role in enhancing inventory management practices, subsequently bolstering financial performance.

The RBV framework serves as a foundational pillar of our research, providing the theoretical underpinning for our investigation. It underscores the significance of a company's ability to leverage its unique and valuable resources and competencies to gain a sustained competitive advantage. In the context of small businesses, these resources can encompass specialized knowledge, strategic partnerships, technological assets, or even the expertise held by owner-managers. Such distinctive attributes serve as the bedrock upon which competitive differentiation is built.

#### Distinctive Attributes and Core Competencies

Embedded within the RBV framework are the notions of distinctive attributes and core competencies. These concepts illuminate the essence of what sets a company apart in the market. Distinctive attributes encapsulate the unique elements and strengths that render the firm exceptional. Core competencies, on the other hand, represent the collective skills and knowledge within the organization, enabling it to excel in particular functions or activities. For small businesses, this may encompass innovations in product design, an unwavering commitment to customer service, or a demonstrated prowess in operational efficiency.

## Owner-Manager Skills

Our study takes a deep dive into the pivotal role of owner-managers within the realm of small businesses. These individuals are not mere bystanders but active architects of their companies' destinies. Their skills and competencies emerge as critical resources within the RBV framework, influencing the firm's strategic direction and operational effectiveness. Owner-managers bring a diverse array of skills to the table, including leadership, financial acumen, marketing expertise, and notably, proficiency in inventory management.

Within the scope of our research, inventory management assumes a central role. It is a critical facet of small business operations, with far-reaching implications for both cost control and customer satisfaction. Effective inventory management ensures that capital is not needlessly tied up, minimizes the risk of stockouts, and optimizes cash flow. It's here that owner-managers with honed inventory management skills can make a substantial difference, streamlining processes, reducing costs, and enhancing overall operational efficiency.

At the heart of our hypothesis lies the belief that as owner-managers refine their skill sets, especially in the realm of inventory management, they empower their organizations to operate more efficiently. These improvements are expected to translate into tangible financial benefits, including increased revenue generation, cost efficiencies, and an overall enhancement of financial performance. The Resource-Based View framework serves as a guiding light in our exploration of the relationship between owner-manager skills, inventory management, and small business performance. It highlights the pivotal role of unique resources and core competencies in underpinning competitive advantage and long-term success. As we delve deeper into the empirical aspects of our study, we aim to provide actionable insights for small businesses looking to harness their internal strengths to thrive in the competitive landscape. In

doing so, we shed light on how owner-managers can be the driving force behind the transformation of their enterprises, ultimately steering them towards enduring prosperity. The research thus hypothesizes that:

**H1. There is a positive relationship between inventory management and financial performance.**

#### **2.4.2 Innovation Capacity and Financial Performance.**

There seems to be some agreement in both academic and business circles that one of a firm's most valuable resources is its technical expertise and ability to develop innovation (Dimitri, 2020). The capacity to innovate, together with technical advancement, is a crucial source of competitive advantage (Caldwell, 2014). Despite a significant growth in the number of research addressing the function and nature of innovation, no universally accepted definition of the term has yet been produced. As a result, innovation is a complicated and ambiguous word; nonetheless, all definitions have a common denominator: the idea of novelty (Akenroye *et al.*, 2022). According to (Selviaridis, 2020), innovation is defined as the introduction of a new or considerably enhanced product (good or service), or process, a new marketing approach, or a new organizational method in company processes, workplace organization, or external contacts. The RBV emphasizes innovation as a source of competitive advantage (Najera Ruiz and Collazzo, 2021). According to de Mel et al. (2012), long-term competitiveness stems from the ability to develop crucial technologies and capabilities faster and at a lower cost than rivals, giving birth to recreations.

There is a wealth of evidence in the academic literature to suggest a positive relationship between innovation and business performance in the case of manufacturing firms (Borgia and Newman, 2012; Wyer, Barrett and Biginas, 2022). Studies on the link between innovation and

performance in the services sector are few, yet empirical evidence of a positive association exists here as well (Obara Onduso and Of Nairobi, 2013). The (Khalid and Lim, 2018) makes a strong relationship between innovation and performance: the ultimate reason why companies innovate] is to enhance company performance, for example, by raising demand or lowering costs. All of this leads us to the following hypothesis:

***H2: innovation capacity correlates positively with Financial Performance.***

### **2.4.3 The Moderating Role of Innovation Capacity**

Adopting inventory management strategies inside a company delivers and improves the organization's skills and capabilities, which in turn improves performance. Furthermore, analysing the link between inventory management and innovation capacities from the viewpoint of RBV Theory clearly supports this kind of interaction. Resources, as we all know, lead to capabilities (Müller *et al.*, 2016). As a result, the basic premise is that inventory management practices in businesses give various types of resources, both real and intangible, and these resources serve to grow and supply skills linked to innovation inside the firm. In this regard, implementing a set of inventory management practices such as leadership management and commitment, customer focus, people management, process management, supplier quality management, and quality data reporting provides the organization with a variety of resources such as skills, knowledge, experience, relationships, tools, communications, and systems. Having such resources helps in the development of the organization's skills in particular areas. It will especially aid in the enhancement of R&D capabilities, marketing capabilities, production capabilities, and planning skills. Improving such talents improves and supports innovation and improves financial performance. In other words, the impact of inventory management on innovation and financial performance might be attributed to inventory

management's function in boosting innovative skills. As a result, the following theory is advanced:

***H3: Innovation Capacity positively moderates the relationship between inventory management capability and financial Performance***



## CHAPTER THREE

### RESEARCH METHODOLOGY AND PROFILE OF STUDY AREA

#### 3.1 Introduction

The methods the researcher would use to carry out the objectives of the study are examined in this chapter. It covers the demographics of the research, the sampling strategy and sample size, the data collection methods, the data analysis, the validity and reliability, and ethical considerations.

#### 3.2 Research design

A study design establishes the framework for data collection and analysis. The study design chosen should reflect the relative relevance of various components of the research process. Research designs include experiment design, cross-sectional or sociological survey design, longitudinal study design, case study design, and comparative study design (Bryman, 2009). This survey-based study focuses on the hospitality industry in Greater Accra.

The research methodology refers to the systematic strategy used in doing business research. Methods of quantitative or qualitative research may be applied. Quantitative research is a kind of research that focuses on quantification in data collecting and analysis, as well as a logical approach to the link between theory and study, with an emphasis on hypothesis testing. In contrast, qualitative research may be defined as a research technique that values words over numbers when collecting and evaluating data and promotes an inductive approach to the link

between theory and study, with a concentration on theory building (Bell and Roberts, 1984). The researcher would use a quantitative technique in this investigation.

### **3.3 Population of the Study**

According to Saunders et al. (2009), a population is defined as the whole collection of individuals, things, or numerical values that an investigator wants to investigate. The target population consists of hospitality firms in the greater Accra region.

### **3.4 Sampling technique and Sample size**

Sampling is the practice of picking individuals at random from a statistical population in order to analyze the characteristics of the group. According to (Bryman, 2009), sampling methods are classified into two types based on their frequency of occurrence: probability sampling techniques and non-probability sampling procedures. Probability sampling procedures are used when the likelihood (probability) of each sampled instance from a population is known and is generally equal in all circumstances. In contrast, non-probability sampling strategies have an uncertain chance of selecting each instance from the whole population. As a probability sample method, the simple random sampling (SRS) approach is employed in this study. SRS is a probability sampling approach that selects a selection of individuals at random from a larger population. Everyone has an equal chance of getting chosen for the sample. Using Yamane's formula ( $n = \frac{N}{(1+Ne^2)}$ ) a sample size of one hundred and nine (109) is chosen from the target population of one hundred and fifty (150). The researcher chose Yamane's formula because it offers a 5% margin of error, making the sample size more appropriate for the study. The calculation is as follows:

$$n = \frac{N}{(1 + Ne^2)}$$

Where:

N = Target population

n = sample size

e = margin of error (5%)

$$n = \frac{150}{(1+150(0.05)^2)}$$

$$n = \frac{150}{1.5}$$

n = 109

As a result, the study's sample size is 109

### **3.5 Data collection methods**

This section provides details on the type of data, the instruments for data collection and the measures used to assess the study's construct

#### **3.5.1 Data type and instrument**

The study makes use of both primary and secondary data sources. A primary data source is an original data source; that is, the data is collected directly by the researcher to conduct research or finish a project (Cohen et al., 2000). An online questionnaire is the primary data collecting instrument. Secondary data is information collected by someone other than the primary user (Cohen et al., 2000). The research reviews publications and journals on inventory management, innovation, and financial performance.

### **3.5.2 Measures**

The researcher uses a primary data source to achieve the study's goals, namely a structured/self-completion questionnaire. The questionnaire is divided into four parts that corresponded to the constructs of the study: Section A contains information on the independent variable, inventory management. Section B discusses the moderator variable, innovation capacity. Section c, on the other hand, examines the dependent variable, financial performance. Section D contains demographic data about the respondents. The questionnaire would be created online using Google Forms and sent to responders through email and WhatsApp. The following sections offer information on how the study's different variables are measured.

### **3.6 Data Analysis**

Data analysis is the process of analysing, cleansing, transforming, and modeling data in order to discover useful information, draw conclusions, and aid decision-makers (Berry, 2004). To extract essential facts from the obtained data and assess the study's hypotheses, the researcher use both descriptive and inferential analysis. Descriptive analytics will comprise mean, standard deviation, kurtosis, variance. In the inferential analysis, correlational analysis, ordinary least squares regression, and moderated regression will be employed. For all analyses, IBM SPSS version 26 will be utilized.

### **3.7 Validity and Reliability**

Reliability is concerned with the consistency of the measures used to assess each component and the repeatability of study results. The degree to which an indicator used to evaluate a notion properly measures that concept, on the other hand, is referred to as validity (Barnes, 1995). Alpha's Cronbach's alpha will be used to examine the data for internal consistency in order to ensure its dependability. To assess the data for discriminant and divergent validity, an exploratory factor analysis will be done.

### **3.8 Ethical issues**

A collection of standards for how researchers should behave themselves is referred to as research ethics. To preserve the dignity, rights, and well-being of participants, researchers must adhere to ethical principles (Burns, 2000). To guarantee that all ethical requirements are met, the study considers the following elements. To begin, the survey safeguards all respondents' privacy. As a result, no names or other sensitive personal details are requested in the survey questionnaire. All additional material is collected only for scholarly reasons. Second, before distributing the surveys, the researcher obtains the permission of all respondents. No one is required to participate in the research.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND RESULTS

#### 4.1 Introduction

This chapter shows the results of the analysis of the data, including a discussion of the results and what they mean for the study. First, the answers are looked at in terms of how many people responded and what kind of people they are. The next part is the descriptive statistics, which include the mean, the standard deviation, the skewness, and the kurtosis. The next section is the analysis of the measurement model, which tries to make sure that the data are accurate and consistent. Cronbach Alpha, Composite reliability, Average variance extracted (AVE), are all ways to look at measurement models. In the next section, correlation analysis, and the hypotheses table are used to test the models. In the last section, the results of the study are talked about in light of the literature that was looked at. SmartPLS4 and IBM SPSS version 26 are used to analyze everything.

## 4.2 Demographic Profile of the Respondents

The demographic information of the respondents and their firms are analyzed in this section using firm age, gender of respondents, age of respondents, highest qualification, and work experience. The results of the respondent's profile are analysed in Table 4.2.

		Frequency	Percentage (%)
<b>(1) Gender</b>	Male	61	58.1
	Female	42	41.9
<b>(2) Age</b>	Below 20 years	0	0
	20 to 29	16	15.1
	30 to 39	73	68.9
	40 to 49	14	13.2
	50 years and above	3	2.3
<b>(3) Work Experience</b>	0-5 years	8	7.5
	6-10 years	21	19.
	11-15 years	34	32.
	15 years and above	44	41.5
<b>(4) Educational Level</b>	undergraduate	46	43.4
	Master's	41	38.7
	Professional	21	19.8
	PHD	2	1.9
<b>(5) Work Experience</b>	1 year	1	1
	Up to 5 years	37	35.5
	6-10 years	26	25
	Above 10 years	40	38.5
<b>Number of employees</b>	6	12	12.9
	6-29	23	24.7
	30-39	11	11.8
	40-50	7	7.5
	Above 50	54	43.1

### Field Study, 2023

According to Table 4.1. males accounted for 58.1% of the respondents, while 41.9% were females. The highest age distribution was 30-39years which represented 68.9% of the total response. The highest educational level was an undergraduate degree representing 43.4% of the total respondents. For work experience, over 10 years recorded 38.5%, as the highest

percentage. Finally, above 50 employees secured a percentage of 43.1% as the highest percentage under number of employees.

### **4.3 Descriptive Analysis**

The descriptive analysis results on inventory management, financial performance, and innovation capacity are analyzed in this section.

#### **4.3.1 Inventory Management**

Inventory management, according to Atnafu & Balda, (2018), is a framework that organizations employ to regulate their inventory interest. It comprises keeping track of and monitoring stock levels, forecasting future demand, and selecting when and how to organize deliveries. It is necessary to safeguard the regular and planned production flow from the random interruption of running out of resources or commodities at multiple places within a supply network. Inventory management considers replenishment lead time, carrying costs, asset management, inventory forecasting, valuation, future inventory price forecasting, physical inventory, visibility, available inventory space, quality management, replenishment, returns and defective goods, and demand forecasting. Inventory management was operationalized using eight items on a seven-point Likert scale, where 1-1.99 = strongly disagree, 2.0-2.99 = disagree, 3.0-3.99 = somewhat disagree, 4.0-4.99 = neutral and 5.0-5.99 = somewhat agree, 6.0-6.99 = agree and 7 = strongly agree. The descriptive results for inventory management is detailed in Table 4.2.

**Table 4.2 Descriptive Results on Inventory Management**

Variables	Min	Max	Mean	SD	Kurtosis	Skewness
All inventory products in our stores are categorized based on their economic worth and significance.	1	7	4.905	1.699	0.149	-0.937
When establishing optimal stock levels, management tries to balance the lowest cost of ordering and the cost of holding stock.	1	7	5.019	1.486	0.505	-0.898
We have a made-to-order inventory mechanism in place in case there is a surge in demand.	1	7	4.819	1.739	-0.558	-0.687
Stock replenishment is done both on a periodic and continuous basis.	1	7	5.365	1.67	0.684	-1.162
The majority of inventory decisions are based on computerized data output.	1	7	5.038	1.86	-0.254	-0.885
Our suppliers are notified as soon as manufacturing is required. As a result, we decrease the amount of stock we hold.	1	7	4.75	1.859	-0.721	-0.648
Management is aware of current scientific models for inventory management in a business.			5.077	1.627	0.039	-0.873
In this organization, there is a particular method for calculating the cost components of total inventory.			5.192	1.63	0.613	-1.101
<b>COMPOSITR SCALE</b>	<b>1.00</b>	<b>7.00</b>	<b>5.02</b>	<b>1.70</b>	<b>0.06</b>	<b>-0.90</b>

Source: Field study (2023) SCALE: 1= "strongly disagree" via 4= "neutral" to 7= "strongly agree"

The descriptive results of inventory management are provided in Table 4.2. With a composite mean of 5.02 and a standard deviation of 1.70, the level of inventory management among manufacturing firms in Greater Accra is deemed to be substantial. The item 'Stock replenishment is done both on a periodic and continuous basis.' recorded the highest mean of (5.365). The item 'Our suppliers are notified as soon as manufacturing is required. As a result, we decrease the amount of stock we hold.' recorded the lowest mean of (4.75). These two extremes demonstrate that, even though inventory management was found to be strong, a significant portion of this is accounted for by the above highest recorded means.

### 4.3.2 Financial Performance

Zhou et al. (2022) posited that financial performance is the capacity of the firm to manage and govern its own resources. Cash flow, balance sheet, profit-loss, and capital change may serve as the foundation for business decision-making. It is critical to comprehend basic and technical analysis, as well as finance to understand the company's financial behaviour via economics, financial management, and accounting. Financial performance was operationalized using six items on a seven-point Likert scale, where 1-1.99 = strongly disagree, 2.0-2.99 = disagree, 3.0-3.99 = somewhat disagree, 4.0-4.99 = neutral and 5.0-5.99 = somewhat agree, 6.0-6.99 = agree and 7 = strongly agree. The descriptive result for financial performance is detailed in Table 4.3.

**Table 4.3 Descriptive Results on Financial Performance**

Variables	Min	Max	Mean	SD	Kurtosis	Skewness
Profit margins	1	7	5.124	1.56	0.443	-1.034
Customer loyalty	1	7	5.381	1.552	0.891	-1.171
Market share	1	7	4.981	1.48	0.516	-0.915
Return on Investment	1	7	5.125	1.542	1.18	-1.25
Cost efficiency	1	7	5.029	1.397	1.542	-1.136
Higher sales revenue growth rate	1	7	4.952	1.417	0.749	-0.964
<b>COMPOSITR SCALE</b>	<b>1.00</b>	<b>7.00</b>	<b>5.099</b>	<b>1.491</b>	<b>0.887</b>	<b>-1.078</b>

Source: Field sturdy (2023) SCALE: 1= "strongly disagree" via 4= "neutral" to 7= "strongly agree"

The descriptive results of financial performance are provided in Table 4.3. With a composite mean of 5.099 and a standard deviation of 1.7491, the level of financial performance among manufacturing firms in Greater Accra- is deemed to be substantial. The item ‘Customer loyalty.’ recorded the highest mean of (5.381). The item ‘Higher sales revenue growth rate.’ recorded the lowest mean of (4.952).

These two extremes demonstrate that, even though inventory management was found to be strong, a significant portion of this is accounted for by the above highest recorded means.

### 4.3.3 Innovation Capacity

Managing innovation is becoming a key focus of academics and practitioners (Tekic and Koroteev, 2019). The changing environment and competitive strengths inside the sector and outside the industry force enterprises to prioritize innovation initiatives. As a result, the need is revolutionary rather than evolutionary (Hartley & Sawaya, 2019). According to (Bygstad *et al.*, 2022) a company's innovative capacity is the procedures that utilize its resources to meet and even drive market change. Innovation capacity was operationalized using eight items on a seven-point Likert scale, where 1-1.99 = strongly disagree, 2.0-2.99 = disagree, 3.0-3.99 = somewhat disagree, 4.0-4.99 = neutral and 5.0-5.99 = somewhat agree, 6.0-6.99 = agree and 7 = strongly agree. The descriptive result for financial performance is detailed in Table 4.4.

**Table 4.4 Descriptive Results on Innovation Capacity**

Variables	Min	Max	Mean	SD	Kurtosis	Skewness
Provide our clients with services that offer unique benefits superior to those of competitors	1	7	5.392	1.634	1.572	-1.379
Our firm actively carries out its work on developing existing products and creating new products.	1	7	5.327	1.549	1.147	-1.196
We enhance the range of our products and services with not previously released products and services.	1	7	4.845	1.636	0.313	-0.949
We try to acquire new products by differing technical specifications and functionalities.	1	7	5.069	1.604	0.402	-0.938
Importance is given to training R&D personnel.	1	7	5.087	1.462	0.308	-0.797
Our employees cleverly transform information from internal and external sources into valuable knowledge for our company	1	7	5.359	1.467	1.574	-1.263

Our company sees presenting new ideas and methods to improve business processes that are important for the success of the company.			5.481	1.38	1.205	-1.096
Our company constantly increases the allocated budget of R&D personnel.			4.883	1.49	0.242	-0.727
<b>COMPOSITR SCALE</b>	<b>1.00</b>	<b>7.00</b>	<b>5.18</b>	<b>1.53</b>	<b>0.85</b>	<b>-1.04</b>

Source: Field sturdy (2023) SCALE: 1= "strongly disagree" via 4= "neutral" to 7= "strongly agree"

The descriptive results of innovation capacity are provided in Table 4.4. With a composite mean of 5.18 and a standard deviation of 1.53, the level of innovation among manufacturing firms in Greater Accra- is deemed to be substantial. The item ‘Our company sees presenting new ideas and methods to improve business processes that are important for the success of the company.’ recorded the highest mean of (5.481). The item ‘We enhance the range of our products and services with not previously released products and services.’ recorded the lowest mean of (4.845). These two extremes demonstrate that, even though inventory management was found to be strong, a significant portion of this is accounted for by the above highest recorded means.

#### 4.3.4 Measurement Model Analysis

This section seeks to statistically validate the scales/items used in measuring the study's variables: inventory management, financial performance and innovation capacity. These model test include Variance Inflation Factor (VIF) for Multicollinearity Test, Cronbach Alpha and Composite reliability for reliability test, and Average variance extracted for validity.

#### 4.3.5 Multicollinearity Test (Variance Inflation Factor)

A variance inflation factor (VIF) is a measure of the amount of multicollinearity in regression analysis. Multicollinearity exists when there is a correlation between multiple independent variables in a multiple regression model. A VIF of below 5 indicates no issues of

multicollinearity. Table 4.5 provides the results of the Multicollinearity Test

**Table 4.7 Variance Inflation Factor (VIF)**

	VIF
Customer loyalty	2.649
Market share	2.64
Return on Investment	2.723
Cost efficiency	2.79
Higher sales revenue growth rate	3.406
Customer loyalty	3.625
All inventory products in our stores are categorized based on their economic worth and significance.	2.563
When establishing optimal stock levels, management tries to balance the lowest cost of ordering and the cost of holding stock.	3.209
We have a made-to-order inventory mechanism in place in case there is a surge in demand.	2.01
Stock replenishment is done both on a periodic and continuous basis.	2.275
The majority of inventory decisions are based on computerized data output.	2.745
Our suppliers are notified as soon as manufacturing is required. As a result, we decrease the amount of stock we hold.	2.415
Management is aware of current scientific models for inventory management in a business.	2.612
In this organization, there is a particular method for calculating the cost components of total inventory.	3.046
Provide our clients with services that offer unique benefits superior to those of competitors	2.926
Our firm actively carries out its work on developing existing products and creating new products.	3.114
We enhance the range of our products and services with not previously released products and services.	3.157
We try to acquire new products by differing technical specifications and functionalities.	2.367
Importance is given to training R&D personnel.	2.798
Our employees cleverly transform information from internal and external sources into valuable knowledge for our company	3.29
Our company sees presenting new ideas and methods to improve business processes that are important for the success of the company.	2.039
Our company constantly increases the allocated budget of R&D personnel.	2.063
INNOVATION CAPACITY x INVENTORY MANAGEMENT	1

Source: Field study (2023)

#### 4.3.6 Test of Reliability

Reliability is a measure of consistency and is assessed in this study using Cronbach Alpha and

composite reliability. Table 4.6 below provides the reliability results.

**Table 4.6 Results of Cronbach’s Alpha and Composite Reliability**

Construct	Number of items	Cronbach’s Alpha	Composite reliability
Inventory Management	8	0.919	0.934
Financial Performance	6	0.927	0.943
Innovation capacity	8	0.919	0.934
Total	24	-	-

Source: Field study (2023)

Table 4.6 provides the results of the Cronbach’s Alpha and Composite reliability test. Inventory management had an Alpha value of 0.919 and composite reliability of 0.934, financial performance had an Alpha value of 0.927 and composite reliability of 0.943, innovation capacity had an Alpha value of 0.919 and composite reliability of 0.934. All three-variables scored above the 0.70 threshold for Cronbach Alpha and composite reliability: the data exhibited high internal consistency and therefore reliable.

#### 4.5.7 Test of Validity

To test the validity of the data obtained, the study used Average variance extracted (AVE), Fornell-Larcker and confirmatory factor analysis.

#### 4.5.8 Convergent Validity

Convergent validity refers to how closely a test is related to other tests that measure the same (or similar) constructs. Average variance extracted (AVE) is used to test the study’s data for convergent validity. An AVE of above 0.50 is ideal. Table 4.7 presents the results.

**Table 4.9 Results of Average variance explained.**

Construct	Number of items	Average variance extracted. (AVE)
Inventory Management	8	0.64
Financial Performance	6	0.733
Innovation capacity	8	0.64
<b>Total</b>	<b>24</b>	<b>-</b>

**Source: Field study (2023)**

According to Table 4.9, all the items designed to measure Supply chain collaboration, Supply chain integration, Big data analytics and Logistics performance, averagely loaded above the 0.50 threshold. This implies that all items converge accurately measure their respective constructs. The data therefore meets all requirements of convergent validity.

#### **4.5.8 Discriminant Validity**

Discriminant validity focuses on determining the actual lack of relationships between notions that theoretically should not be connected to one another. The Fornell-Larcker criteria is used to assess the discriminant validity of the data. According to the Fornell Larcker criterion, there must be a stronger connection between the squared variances of the variables among themselves than between the squared variances of the variables and other variables.

**Table 4.8 Results of Fornell-Larcker Criteria**

Construct	FP	IC	IM
Financial Performance (FP)	<b>0.856</b>		
Innovation capacity (IC)	<b>0.749</b>	<b>0.800</b>	
Inventory Management (IM)	<b>0.700</b>	<b>0.763</b>	<b>0.800</b>

**Source: Field study (2023)**

As shown in Table 4.8 above, FP had a correlation coefficient of 0.7856 with itself, but had a correlation of 0.749, 0.700 with IC and IM respectively. IM also had a correlation coefficient of 0.8 with itself and correlation coefficients of 0.700 and 0.763 with FP and IC respectively. IC also had a correlation coefficient of 0.80 with itself, but had correlation

coefficients of 0.749, 0.763 with FP and IM respectively. Thus, each of the variables had a higher correlation with itself than the variables below them hence, each variable is valid.

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## 4,6 Confirmatory Factor Analysis

A statistical method called confirmatory factor analysis (CFA) is used to confirm the component structure of a collection of observed data. The researcher may examine the idea that there is a connection between the variables that are seen and the latent constructs that underlie them using CFA. Figure

### 4.6.1 illustrates the loadings of each construct.

According to Figure 4.1 below, all items designed to measure inventory management, financial performance and innovation capacity loaded above 0.5 and therefore actually measure their latent variables. The data is therefore valid.

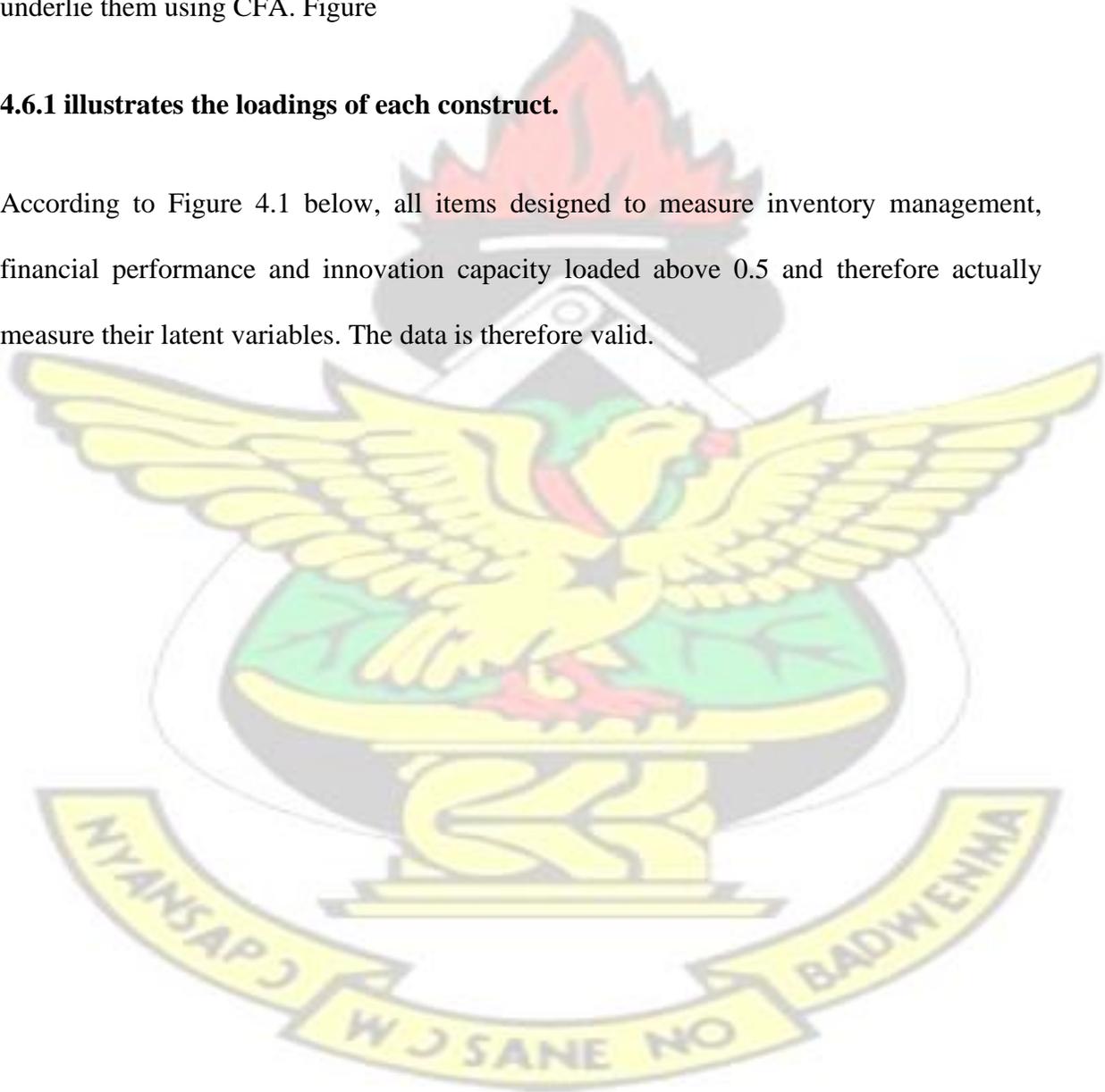
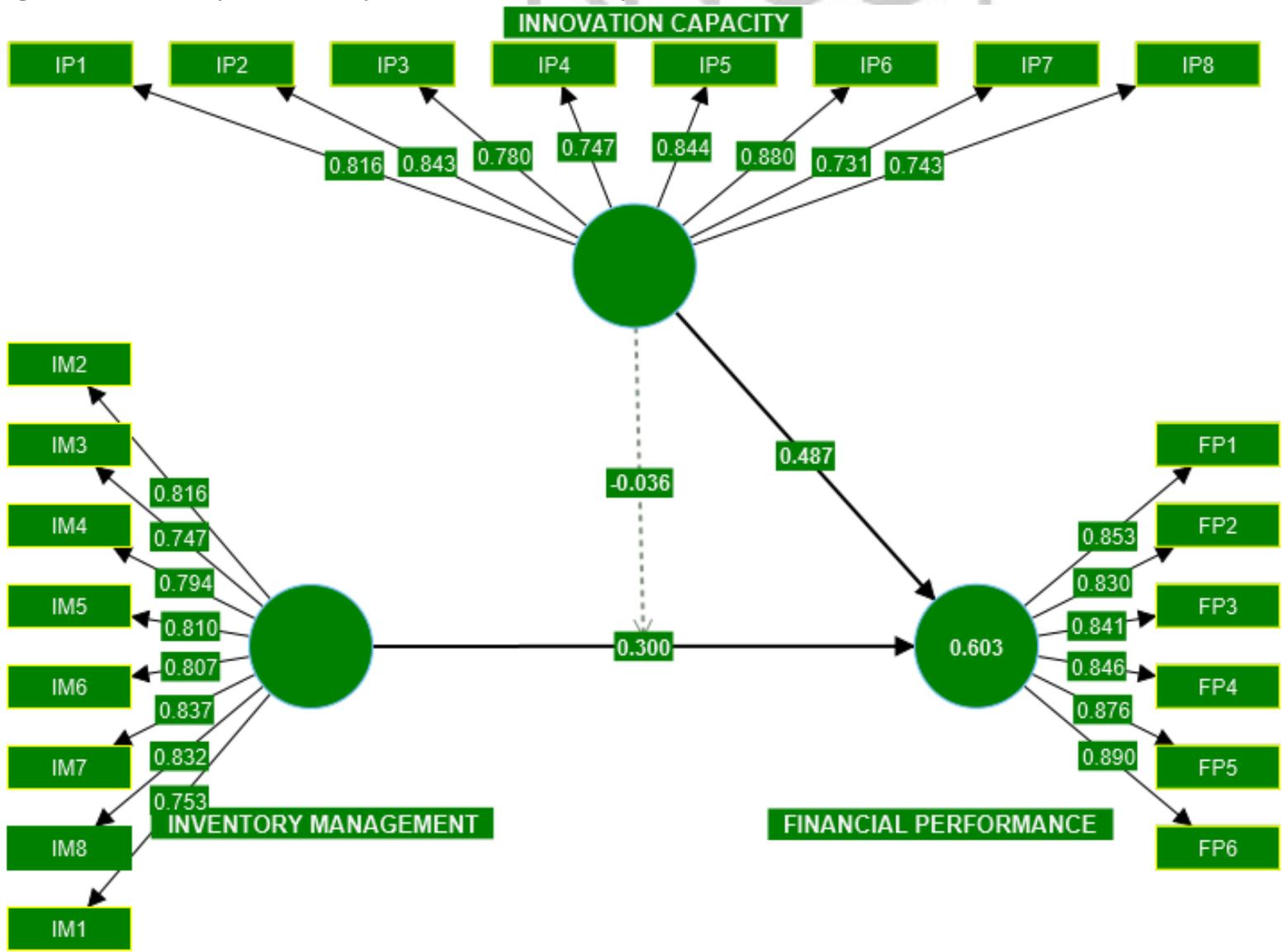


Figure 4.1 Reliability and Validity Measures, Field Study 2023



## 4.7 Structural Equation Modelling

The route coefficients (also known as direct effects) and moderation connection between the variables were looked at using the PLS Structural Equation model. The study model's route coefficients were established using a bootstrap of 5000 repetitions.

**Table 4.9 Structural Equation Model (SEM) Result**

Path	Coefficients	T-value	P-value
<i>Direct Effects</i>			
IM → FP	0.489	3.964	0.00
IC → FP	0.297	2.537	0.011
<i>Moderation Effect</i>			
IC*IM → FP	-0.036	0.948	0.343

Source: Field Study (2023) Notes: inventory management (IM) financial performance (FP) innovation capacity (IC)

Table 4.9 presents the results of the structural equation model to test the direct, moderation relationships between the variables. According to the table, inventory management has a positive and significant effect on financial performance, given the path coefficient results  $\beta = .0489$ ,  $t = 3.964$ ,  $p < .00$ . This indicates for every unit of inventory management, financial performance increases by 0.489 units. With a t-value of 3.964 being above the 1.96 threshold. A p value of  $< 0.00$  also lends significant support for **H1**, which stated that inventory management has a significant and positive effect on financial performance.

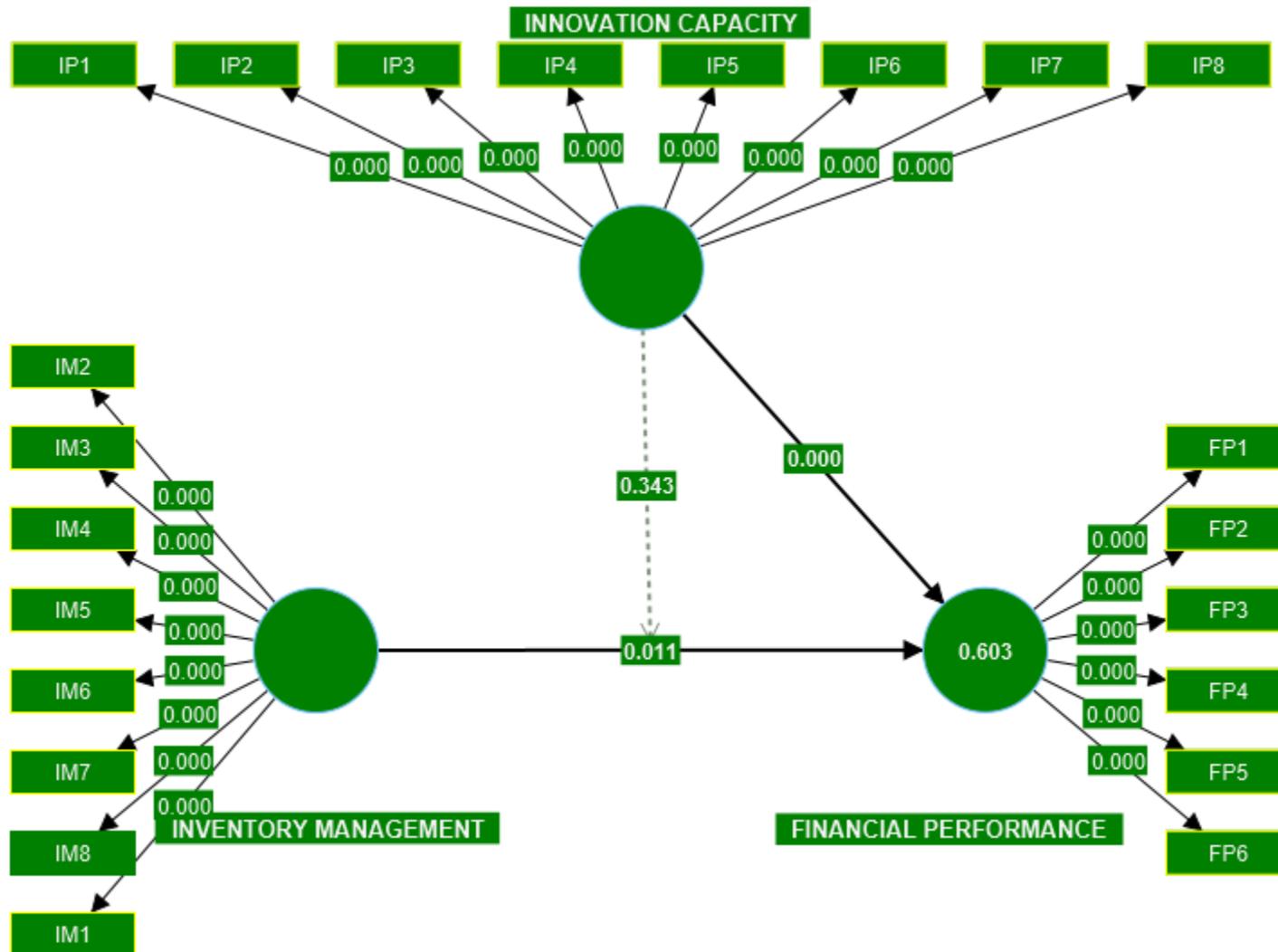
The study also sought to examine the correlation between innovation and financial performance. The results showed a positive relationship between innovation capacity and financial performance. given

the path coefficient results  $\beta = .0297$ ,  $t = 2.537$ ,  $p < .01$ . This indicates for every unit of innovation capacity, financial performance increases by 0.297 units. With a t-value of 2.537 being above the 1.96 threshold. A p value of  $< 0.00$  also lends significant support for **H2**, which stated that innovation capacity has a significant and positive effect on financial performance.

The study sought to examine the moderating role of innovation capacity on the relationship between inventory management and financial performance. The SEM output shows a negative moderation effect of innovation on the relationship between inventory management and financial performance, given the path coefficient results  $\beta = -0.036$   $t = 0.948$ ,  $p > .05$ . This indicates that though H3 is not supported.



Figure 4.2 Structural Equation Modelling



## 4.8 Hypothesis Table

This section summarizes the result from the structural equation model used to test the study's hypotheses.

**Table 4.10 Hypotheses table**

Hypothesis	Path Analysis	Expected effect	Results	Conclusion
H1	IM → FP	Positive	.489 (p < 0.01)	<b>Supported</b>
H2	IC → FP	Positive	0.297 (p < 0.01)	<b>Supported</b>
H3	IC*IM → FP	negative	-.0035 (p > .01)	<b>Not Supported</b>

Source: Field study (2022) Notes: Inventory Management, Innovation Capacity and Financial Performance

## 4.9 Discussion of Results

This section discusses the results from analysis in light of the literature reviewed.

### 4.9.1 Inventory Management and Financial Performance

According to the RBV, a unique set of resources owned by a firm, including the firm's capabilities, are expected to explain the variations in financial performance outcomes. A substantial and positive association between inventory control and financial performance was shown by multiple regression analysis and Pearson correlation. The researcher concluded that the firms' sales and profit levels are hampered by the lack of effective inventory management procedures. Similar to this, research conducted in 2015 by Hamza et al. looked at the impact of inventory management on the financial performance of SME's in Ghana's northern area. Their findings demonstrated that inventory management practices had a beneficial impact on SME financial performance. Given its vulnerability to theft and obsolescence due to shifting consumer tastes and preferences, inventory is one of the most challenging assets for businesses to manage (Ragazou et al., 2022). Therefore, it is crucial to monitor inventory movements and prevent

unnecessary losses that might ultimately hurt a company's financial performance (Agustina and Baroroh, 2016). The result of this study is consistent with the reviewed literature, given the path coefficient values are as follows:  $\beta = .0489$ ,  $t = 3.964$ ,  $p < .00$ .

#### **4.9.2 Innovation and Financial Performance**

There is a wealth of evidence in the academic literature to suggest a positive relationship between innovation and business performance in the case of manufacturing firms (Borgia and Newman, 2012; Wyer et al., 2022). Studies on the link between innovation and performance in the services sector are few, yet empirical evidence of a positive association exists here as well (Obara Onduso and Of Nairobi, 2013). The (Khalid and Lim, 2018) makes a strong relationship between innovation and performance: the ultimate reason why companies innovate] is to enhance company performance, for example, by raising demand or lowering costs. The result from this study is consistent with the reviewed literature above, given the path coefficient results  $\beta = .0297$ ,  $t = 2.537$ ,  $p < .01$ .

#### **4.9.3 Moderation effect of Supply Chain Integration and Big Data Analytics**

The basic premise is that inventory management practices in businesses give various types of resources, both real and intangible, and these resources serve to grow and supply skills linked to innovation inside the firm. In this regard, implementing a set of inventory management practices such as leadership management and commitment, customer focus, people management, process management, supplier quality management, and quality data reporting provides the organization with a variety of resources such as skills, knowledge, experience, relationships, tools, communications, and systems. Having such resources helps in the development of the organization's skills in particular areas. It will especially

aid in the enhancement of R&D capabilities, marketing capabilities, production capabilities, and planning skills. Improving such talents improves and supports innovation and improves financial performance. The result from the study is very inconsistent with the literature reviewed above, given the path coefficient results  $\beta = -0.036$   $t = 0.948$ ,  $p > .05$



## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

#### 5.1 Introduction

The study examined the moderating role or innovation capacity on the relationship between inventory management and financial performance. This chapter discusses the findings summary, conclusions, recommendations, and future study suggestions.

#### 5.2 Summary of Findings

This study sought to assess the impact of inventory management on financial performance of manufacturing firms in the greater Accra region, while considering the moderating roles of innovation capacity. The study's key findings are summarised in this section.

##### 5.2.1 Inventory Management and Financial Performance

The study revealed that there is a significant relationship between inventory management and financial performance, given the path coefficient results  $\beta = .0489$ ,  $t = 3.964$ ,  $p < .00$ . This indicates for every unit of inventory management, financial performance increases by 0.489 units. With a t-value of 3.964 being above the 1.96 threshold, there is further support for the above relationship as  $p < 0.01$  also lends significant support for H1, which stated that inventory management has a significant and positive effect on financial performance is supported.

### 5.2.2 Innovation Capacity and Firm Performance

The study revealed that there is a significant relationship between inventory management and financial performance, given the path coefficient results  $\beta = .0297$ ,  $t = 2.537$ ,  $p < .01$ . This indicates for every unit of innovation capacity, financial performance increases by 0.0297 units. With a t-value of 2.537 being above the 1.96 threshold, there is further support for the above relationship as  $p < 0.01$  also lends significant support for **H2**, which stated that innovation capacity has a significant and positive effect on financial performance is supported.

### 5.2.2 The Moderating Role of Innovation Capacity

The study showed a negative moderating effect of innovation capacity on the relationship between inventory management and financial performance, given the path coefficient results  $\beta = -0.036$   $t = 0.948$ ,  $p > .05$ . This implies that **H3** which stated a positive moderating role is not supported.

## 5.3 CONCLUSION

Improving inventory management procedures is crucial for most firms, especially those operating in the industrial sector, to maximize their financial capability. This study examined the financial performance effects of inventory management by adopting an intervention role for innovation capability. The study derives the following conclusions based on the data collected from 109 manufacturing businesses. First off, implementing innovation capacity has no impact on how inventory management and financial performance are integrated.

Second, supporting effective inventory management methods improves corporate operations by boosting revenue and market share.

## **5.4 RECOMMENDATIONS**

The researcher makes recommendations and ideas for more study in this section. First, the research showed that inventory management significantly and favourably affected financial performance. The capacity to utilize more technologically oriented management strategies is pushed on supply chain managers in order to decrease holding costs and enhance overall performance. As it lowers the total cost of stocking, strategic measures like vendor management inventory and the deployment of RFIDs might also be helpful for assuring optimal performance. Additionally, it is crucial that managers apply information-sharing strategies throughout the supply chain to raise the calibre and effectiveness of the chain's utilization of knowledge for the firm. The research also showed that while the association between inventory management and financial performance was adversely tempered by innovation capability. Managers might thus consider additional technical methods like industry 4.0 and interventions that could increase significance.

### **5.4.2 Suggestions for Future Research**

Though academics, practitioners, and policymakers have profited from this study, it includes important flaws that should be considered by future investigation.

The moderating role of innovation capability and the relationship between inventory management and financial performance were examined in the study's research model. Future

research might use this model and include additional variables to decide different results, such as trust, supply chain integration, dynamic capacities, and others. Future research may also use this approach to look at diverse industries, such as manufacturing or the service industry. Finally, since it solely focused on energy businesses in the greater Accra area, the research lacked applicability. Future studies could widen their focus and examine the whole nation.



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**APPENDIX**  
**SURVEY QUESTIONNAIRE**

Dear respondent, I am a student at Kwame Nkrumah University of Science and Technology's School of Business, Department of Supply Chain and Information Systems, where I am working on a research project titled Inventory management and financial Performance: The role of innovation capacity. Any information given will ONLY be used for general purposes and will be regarded as HIGHLY CONFIDENTIAL.

**SECTION A: Inventory Management (Source: Hamed et al., 2017)**

Please indicate your degree of agreement or disagreement with the following inventory management statements about your company using the 7-point Likert scale below.

1	2	3	4	5	6	7						
Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree						
<b>Inventory management practices</b>						<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
All inventory products in our stores are categorized based on their economic worth and significance.												
When establishing optimal stock levels, management tries to balance the lowest cost of ordering and the cost of holding stock.												
We have a made-to-order inventory mechanism in place in case there is a surge in demand.												
Stock replenishment is done both on a periodic and continuous basis.												
The majority of inventory decisions are based on computerized data output.												
Our suppliers are notified as soon as manufacturing is required. As a result, we decrease the amount of stock we hold.												
Management is aware of current scientific models for inventory management in a business.												
In this organization, there is a particular method for calculating the cost components of total inventory.												

**SECTION B: Financial Performance** Delen et al. (2013)

Please indicate your degree of agreement or disagreement with the following statements about your company financial Performance using the 7-point Likert scale below.

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Neutral	5 Somewhat agree	6 Agree	7 Strongly agree						
						1	2	3	4	5	6	7
Profit margins												
Customer loyalty												
Market share												
Return on Investment												
Cost efficiency												
Higher sales revenue growth rate												

**SECTION C: Innovation Capacity** (Source: Calik et al., 2017)

Please indicate your degree of agreement or disagreement with the following statements about your company using the 7-point Likert scale.

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Neutral	5 Somewhat agree	6 Agree	7 Strongly agree						
						1	2	3	4	5	6	7
Provide our clients with services that offer unique benefits superior to those of competitors												
Our firm actively carries out its work on developing existing products and creating new products.												
We enhance the range of our products and services with not previously released products and services.												
We try to acquire new products by differing technical specifications and functionalities.												
Importance is given to training R&D personnel.												
Our employees cleverly transforms information from internal and external sources into valuable knowledge for our company												

Our company sees presenting new ideas and methods to improve business processes that are important for the success of the company.							
Our company constantly increases the allocated budget of R&D personnel.							

**SECTION D: Demographic information**

Kindly select all that pertains to the following questions by checking (√).

**How many years has your business been in existence (in years):** 1-5 [ ] 6-10 [ ] 11-15 [ ] >15 [ ]

**Number of Employees in the company:** < 6 [ ] 6-29 [ ] 30-59 [ ] 60-99 [ ] 100+ [ ]

**Gender** Male [ ] Female [ ]

**Age** [ ] Below 20 years [ ] 20-29years [ ] 30-39 years [ ] 40-50years [ ] Above 50years

**What is the greatest level of schooling you have?** Undergraduate [ ] Masters [ ] PHD [ ] professional [ ]

**How long have you been employed by the company:** < 1 year [ ] 1-5 years [ ] 6-10years [ ] above 10years

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