

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,

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**EXAMINING THE MODERATING ROLE OF FIRM REPUTATION
ON THE RELATIONSHIPS BETWEEN SUPPLY CHAIN QUALITY
MANAGEMENT PRACTICES AND ORGANIZATIONAL
PERFORMANCE OF MANUFACTURING FIRMS IN GHANA**

BY

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**A thesis submitted to the Department of Supply Chain and Information Systems,
Institute of Distance Learning, in partial fulfilment of the requirement for the award**

of the Degree of

**MASTER OF SCIENCE (PROCUREMENT AND SUPPLY CHAIN
MANAGEMENT)**

NOVEMBER, 2023

DECLARATION

I hereby declare that this thesis is the result of my original work towards the MSc in Procurement and Supply Chain Management and that, to the best of my knowledge, it neither contains materials 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.

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ABSTRACT

Various academic literature has highlighted the importance and contribution of supply chain quality management to the supply chain activities and overall performance of organizations. Yet, there exists a gap in literature regarding how the individual dimensions of Supply Chain Quality Management influence various performance measures. This study sought to examine the effects of Supply Chain Quality Management practices on organizational performance and the moderating role of firm reputations. The study employed a quantitative method and used a survey research design and descriptive and inferential statistics for the collection and analysis of data respectively. Also, convenience sampling was also used in selecting 200 manufacturing companies from which responses were sought for the purpose of data analysis. It was revealed from the data analysis that Quality Leadership, Human Resource Management, Supply Chain Integration, Customer Focus and Supplier Focus had positive and favourable effects on the performance of firms and resulted in significant improvements in organizational performance. The study also established that firms that are able to effectively leverage their reputation are able to develop their Supply Chain Quality Management which in turn impacts firm performance. These finding from the study imply that while Supply Chain Quality Management correlates with firm performance, the association is informed by the presence of firm reputation; thus, higher a firm's reputation, the more the SCQM affect firm performance.

DEDICATION

I would like to dedicate to my family for the immense support to complete my masters programme.

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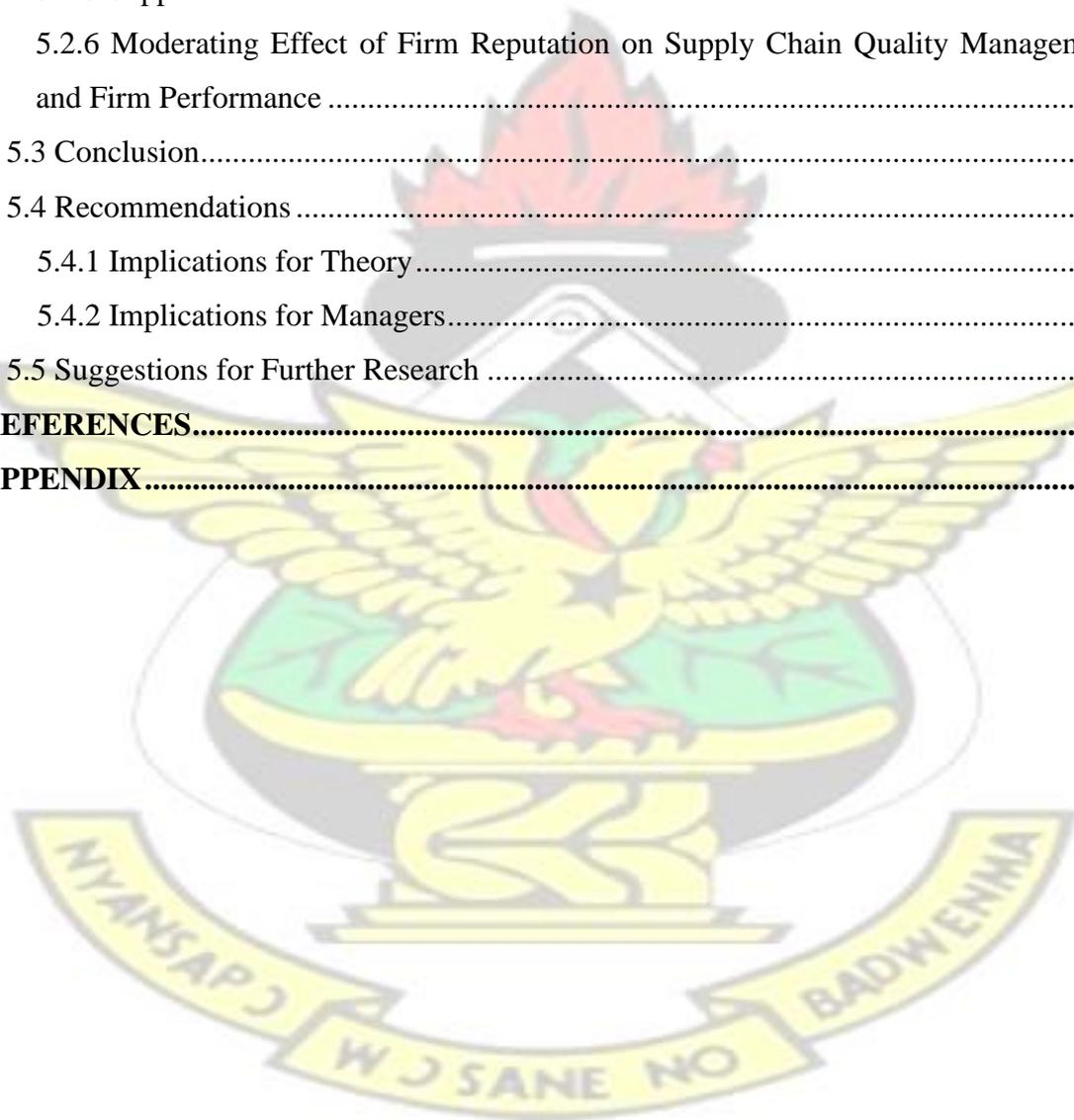


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LIST OF ABBREVIATIONS

CF	-	Customer Focus
HRM	-	Human Resource Management
HR	-	Human Resource
QL	-	Quality Leadership
QM	-	Quality Management
SCI	-	Supply Chain Integration
SCM	-	Supply Chain Management
SCQM	-	Supply Chain Quality Management
SF	-	Supplier Focus
TQM	-	Total Quality Management
TQ	-	Total Quality



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Supply chain quality management (SCQM) has been an interesting area of study which has drawn the attention of supply chain professionals and scholars over the last decade (Chaghooshi et al., 2015). The objective of SCQM is to manage complicated business operations in dynamic context (Robinson and Malhotra, 2005; Baird et al., 2011). This suggest that SCQM can aid in decision making both at the individual and organizational levels of a corporate entity. This is because in today's market, rivalry is not limited to enterprises but is focused on supply chains (Soltani et al., 2011).

SCQM may help with the prevention of defects in the supply chain whilst guaranteeing supply chain safety and quality within the internal and external environment (Foster, 2008). What this means is that measuring supply chain performance and identifying ways to enhance it are inherently linked to ensuring quality management techniques are noticed. The necessities of supply chain management (SCM) and QM integration has been supported by organizations who maintained that supply chain and quality management integration within organizations provides the groundwork for creating competitive advantage (Thatte et al., 2007; Sukati et al., 2012; Azizi et al., 2016). It has also been discovered that companies with sound SCQM practices can consistently outperform their supply chain competitors (Singh et al., 2014). For instance, SCQM practices such as process management, supplier quality management, quality leadership, product service design, training, and quality data are all positively correlated with operational measures including quality delivery (Yeung et al., 2008; Fotopoulos and Posma, 2010). By extension, it is only possible to satisfy customers completely when the quality of products, processes,

and values are all combined with quality management activities, and when the supply chain and other entities are integrated to a larger extent than strictly within the company.

That notwithstanding, supply chain managers encounter new challenges everyday due to the development of global markets (Mehra and Agrawal, 2003; Williams et al., 2006). For instance, managers face the challenge of meeting global demand with ever-increasing levels of customer quality. In view of this, firms that fail to meet increased customer demands for quality products would lose their customers to other competing firms, resulting in a decrease in sales and poor business performance (Zeng et al., 2013). In the past, supply chain management relied on industry-specific techniques that no longer provide an adequate response to the ever-changing customer taste and preferences (Vanichchinchai and Igel, 2010; Soares et al, 2012). Therefore, it is crucial for supply chain managers to expand their view of SCM to its strategic importance by viewing it from a broader perspective in terms of SCQM, which is indispensable for winning a competitive edge in the marketplace (Flynn and Flynn, 2005; Ebrahimpour and Birkholz, 2006; Kannan and Tan, 2007).

SCQM can thus be viewed as supporting the stability of resource flows for supply chain participants, and hence offering both formal and informal procedures to control the quality of those flows (Handley and Gray, 2013). Through the adoption of SCQM practices, a highly interconnected business environment can emerge, in which the flow of essential resources can be controlled by firms. This is because operating environments can be chaotic and have an impact on the welfare of consumers and the firm's overall mission success (Truong et al., 2014). Ford (2015) added that cognitive limitations together with fluctuating environmental circumstances combine to make business environment uncertain. Besides,

most interdependent organizations become increasingly exposed to variation in environmental conditions, thus presenting a strategic opportunity for leveraging different organizational governance and management strategies (Srinivasan et al., 2011; Yenyurt et al., 2014). This means that for firms to achieve long-term performance outcome, there should be a particular degree of quality and this reinforces the need for SCQM practices.

Indeed, it is clear that the adoption of SCQM is pivotal for enhancing the performance of firms. This is particularly true in the case of manufacturing firms that compete on the basis of 'quality' of medicines and other medical supplies manufactured. Although, pharmaceutical spending is a major driver of universal healthcare in Ghana, it is the quality of the medicines and medical supplies produced that leads to an improvement in the health status of patients. Producing defective medicines and medical supplies can negatively affect customer satisfaction, result in low sales and eventually reduce the firm's financial returns. However, it remains unclear whether the adoption of SCQM practices have any effect on the performance of manufacturing firms in Ghana. This needs to be empirically verified.

In the extant literature, not much work has been done to establish the extent to which the individual dimensions of SCQM influence different performance measures. In view of this, an empirical gap exists. To fill this gap, the researcher investigates the effect of different dimensions of SCQM on different performance measures using selected manufacturing firms in Ghana. In addition, the prior studies overlooked 'firm reputation' as a variable that could moderate the SCQM-performance relationship. This study is undertaken to bridge this gap. It is expected that the result of this study would inure to the benefit of firms in the pharmaceutical industry in Ghana by showing the strategies firms could use in optimizing its internal and external resources to create sustainable competitive advantage.

1.2 Problem Statement

Many questions remain unanswered as a result of the literature assessment, which points to various problem areas. Three of these areas, which have not been addressed at the same time but are pertinent to this study, are discussed below.

First and foremost, there is a lack of a study model that encompasses upstream activities, internal processes, and downstream activities at the same time. Past studies in the literature either concentrated on QM dimensions or SCM dimension separately. SCM is concerned with inter-organizational improvement whilst QM is more concerned with intra-organizational improvement and does not take a systemic view of the entire supply chain (Robinson and Malhotra, 2005). An extended resource-based view perspective, such as the resource dependency theory (RDT), proposes that companies integrate both intra- and inter-organizational resources in order to build a strong organizational performance (Mathews, 2003; Hou et al., 2015). In addition, Kaynak and Hartley (2008) asserted that, in order to effectively adopt SCQM, not only internal procedures but also cross-organizational activities that link a company with its customers and suppliers must be considered. Moreover, according to Quang et al., (2016), the successful implementation of SCQM requires the integration of practices from upstream and downstream operations, as well as from internal processes. This is an empirical gap that this study seeks to fill.

Secondly, studies on SCQM practices that are linked to the three main indicators of firm performance (customer performance, financial performance, and operational performance) have not been thoroughly investigated in the extant literature. Gopal and Thakkar (2012) also discussed the relevance of these performance measures for modern supply chain research, emphasizing the necessity for metrics standardization as well as the identification of critical measures that might be communicated among supply chain participants. Quang et al., (2016) concluded that additional research is needed to determine the direct and

indirect influence of SCQM on a variety of firm performance parameters. This is another empirical gap that this study seeks to fill.

Thirdly, rarely can one find studies that incorporated a moderating variable into models investigating the relationship between SCQM and firm performance in the extant literature. The need for a moderating variable in this study is conditioned on the fact that there is keen competition in the pharmaceutical industry in Ghana and over the world, and most firms constantly seeks to protect their reputation as the leading producer of quality and affordable medicines. For instance, if a firm is the leading producer of a particular medicine, it would seek to safeguard its reputation in this regard by constantly innovating and improving its design process. Thus, safeguarding the firm's reputation as the leader in the production of a particular product would not only bring competitive advantage, but will also enhance business performance. That notwithstanding, the extent to which firm reputation moderates the relationship between SCQM and firm performance in manufacturing firms in Ghana remains unclear.

This study considered firm reputation as a moderator on the relationship between SCQM and different performance measures. The addition of a moderating variable would add more rigour to the current study and extend the findings of previous studies reported in the extant literature. By addressing these research gaps, the current study aimed to develop a sound conceptual framework for SCQM theory and firm performance by unifying the diverse dimensions of SCQM practices and assess the effect of these practices on different performance measures. This could serve as a strategic foundation for supply chain managers to establish their priorities for supply chain operations

1.3 Objectives of the Study

The main aim of this study is to examine the effect of SCQM practices on organizational performance and the moderating role of firm reputation. Specifically, the objectives of the study are:

1. To examine the effect of QL on firm performance among selected manufacturing firms in Ghana.
2. To determine the effect of HRM on firm performance among selected manufacturing firms in Ghana.
3. To examine the effect of SCI on firm performance among selected manufacturing firms in Ghana.
4. To examine the effect of CF on firm performance among selected manufacturing firms in Ghana.
5. To examine the effect of SF on firm performance among selected manufacturing firms in Ghana.
6. To ascertain the moderating effect of firm reputation on the relationship between SCQM practices and firm performance among selected manufacturing firms in Ghana.

1.4 Research Questions

To achieve the above objectives, the study will be guided by the following questions:

1. What is the effect of QL on firm performance among selected manufacturing firms in Ghana?
2. What is the effect of HRM on firm performance among selected manufacturing firms in Ghana?

3. What is the effect of SCI on firm performance among selected manufacturing firms in Ghana?
4. What is the effect of CF on firm performance among selected manufacturing firms in Ghana?
5. What is the effect of SF on firm performance among selected manufacturing firms in Ghana?
6. What is the moderating effect of firm reputation on the relationship between SCQM practices and firm performance among selected manufacturing firms in Ghana?

1.5 Significance of the Study

Using selected manufacturing firms in Ghana, the goal of this research is to determine whether firm reputation has a moderating effect on the relationship between SCQM and firm performance. As a result, the research would benefit two stakeholders: management within each of the selected manufacturing firms and the academic community.

Firstly, effective approaches to integrate supply chain actors to improve firm performance would become apparent, helping management to learn how to effectively work with its supply chain participants. This research would be relevant to manufacturing firms' managers in the sense that, it would help them acquire the knowledge about effective ways in which quality can be achieved leading to value creation for the organization. To this end, through the collection of data from the organization, the empirical analysis would shed light on the approaches and practices that can be used by management to implement its supply chain decisions, that are focused on building and sustaining a solid corporate reputation. Moreover, this study would help managers to gauge and assess essential success elements of SCQM and craft effective strategies for SCQM's adoption.

Secondly, this study would advance the research on SCQM and organizational performance in developing countries especially in sub-Saharan Africa and in particular, Ghana. This study covered a lot of ground because it incorporates firm reputation as a moderator of the relationship between SCQM and firm performance, as well as the individual analysis of SCQM practices. This makes the study unique as there are no competing studies in the extant literature. Additionally, the prior studies that have explored the interplay between the individual dimensions of SCQM and performance outcomes shows inconsistent result. The result of this study would provide further insight into the dynamic of the relationship. Furthermore, the novelty of this study is the contribution to the supply chain literature by covering the three area of SCQM simultaneously: upstream, downstream and internal process as well as all performance measures made up of customer satisfaction, operational and financial performance.

1.6 Overview of Research Methodology

This study adopts the survey research design. In particular, the survey will target top management of selected manufacturing firms in the Greater Accra Region, where most of selected firms are headquartered. The study is quantitative research and therefore will use primary data to understand the relationship between the variables under study (SCQM practices, firm performance and firm reputation). To collect the primary data for the study, the questionnaire instrument will be used. The data analysis technique that will be employed will comprise of descriptive and inferential statistics. Specifically, Partial Least Square-Structural Equation Modelling (PLS-SEM) approach will be employed to analyse the data collected. The statistical software that will be used to analyse the data will be Smart PLS version 3.3.3.

1.7 Scope of the Study

The study did not encompass the broad spectrum of SCQM dimensions but is limited to five dimensions namely Customer Focus, Supplier Focus, Quality Leadership, Human Resource Management and Supply Chain Integration. These were selected because they are the most commonly used dimensions in the SCQM literature. Similarly, three performance measures were studied namely customer performance, operational and financial performance. The aim is to get an accurate picture of how firms achieved their different goals through the adoption of SCQM practices. Also, the study employed firm reputation as a moderator to find out the strength of the linkage between SCQM and firm performance. Additionally, the study investigated selected manufacturing firms in Ghana, particularly Greater Accra Region, and not the entire pharmaceutical industry.

1.8 Limitation of the Study

In undertaking this study, some limitations were encountered. One of them was the lack of financial resources to engage in a comprehensive field research. This study was self-financed and so the researcher was limited to some extent in respect of financial resources. This prevented the researcher from increasing the number of the pharmaceutical companies in other regions to gather more primary data which could enhance the generalization of findings. Therefore, in interpreting the result of this result caution should be exercised; the finding is only applicable to the selected companies and not the entire manufacturing firms in Ghana.

1.9 Organization of the Study

This research is broken down into five chapters. The theoretical literature, concepts in the area of SCQM and the empirical literature on the SCQM-performance relationship are reviewed in chapter two. Also, the conceptual framework which explains the flow and link between the variables being studied is presented. In chapter three, the research

methodology which explains the methods, processes and techniques adopted by the researcher is explained and justified. Chapter four presents the result, analysis and discussion of data collected. Finally, chapter five brings the study to an end and also offers some crucial ideas in terms of practical recommendation for management of the companies surveyed. In addition, the future research suggestion is also proposed.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter of the study reviews the conceptual, theoretical and empirical literature on supply chain quality management, firm performance and firm reputation. The conceptual review aims to provide insights and understanding of the key terms identified in the topic which are supply chain quality management, firm performance and firm reputation. Under the theoretical review, the study identifies and explains the main theories that underpins the study. These theories are resource-based view, resource dependency theory and transaction cost theory. Under the empirical review, previous studies related to the topic under investigation are presented. The chapter ends with the conceptual framework, which explains the link between the variables employed in the study.

2.2 Conceptual Review

The conceptual review provides insight into the concept of supply chain quality management, firm performance and firm reputation, which are the main constructs of the study. Each of these are explained and discussed in details under the following subsections:

2.2.1 Overview of Supply Chain Quality Management

Supply chain quality management (SCQM) is defined as the formal coordination and integration of the activities and processes of all participating partners in the supply chain to measure, evaluate, and improve products, services, and processes in order to maximize the value that is created and enhance the satisfaction of customers in the marketplace (Robinson and Malhotra, 2005). The SCQM field encompasses a variety of interdisciplinary domains and integrates quality management (QM) and supply chain management (SCM). The objective of SCQM is to manage complicated operations in dynamic context (Robinson and Malhotra, 2005; Baird et al., 2011). Thus, SCQM is a

methodology that strives to integrate suppliers, manufacturers, distributors, and retailers so that the product is made properly and supplied through the right channel, at the correct time, and at the lowest possible cost, while simultaneously delivering customer satisfaction (Zeng et al., 2013). This is exactly what is pursued by SCQM at the optimal level. QM and SCM, as well as their integration, give an organization the capability to optimize operational functions which can lead to improved effectiveness and efficiency of operations (Kuei et al., 2008; Kaynak and Hartley, 2008; Kumar et al., 2009; Azar et al., 2010). This provides comprehensive support to all divisions within an organization, which is then widely-applied and increases the business bottom line (Azar et al., 2010).

2.2.2 Supply Chain Quality Management Practices

Supply chain quality management practices (SCQMP) are a set of practices that are adopted by firms to improve upon productivity and achieve optimum performance (Soares et al., 2017). Supplier–buyer activities, strategic management, manufacturing techniques, and process integration are all examples of how the topic of QM in the supply chain is fractured and scattered throughout many other disciplines (Robinson and Malhotra, 2005). As noted in the introduction chapter, the term "SCQM" is rarely used in the literature since research on QM in SCM literature is very fragmented and does not adequately address QM as a significant feature of SCM. Despite the fact that there are as many different approaches to total quality management (TQM), Evans and Dean (2000) contend that the majority of them share the fundamental components of (1) customer focus, (2) strategic planning and leadership, (3) continuous improvement and learning, and (4) empowerment and teamwork. Moreover, according to Mehra et al., (2001), who compiled an extensive review of TQM research, there are at least 45 elements that affect TQM implementation, which can be divided into 5 categories: (1) human resource focus, (2) management structure, (3) quality tools, (4) supplier support, and (5) customer orientation. Furthermore, multiple

evaluations and analyses of SCM literature demonstrate that this evolving body of knowledge is derived from the research disciplines of physical distribution, transportation and networked systems of materials, logistics and transportation, and information systems and technology.

Figure 2.1 depicts the primary components that describe the historical context of QM and SCM, respectively.

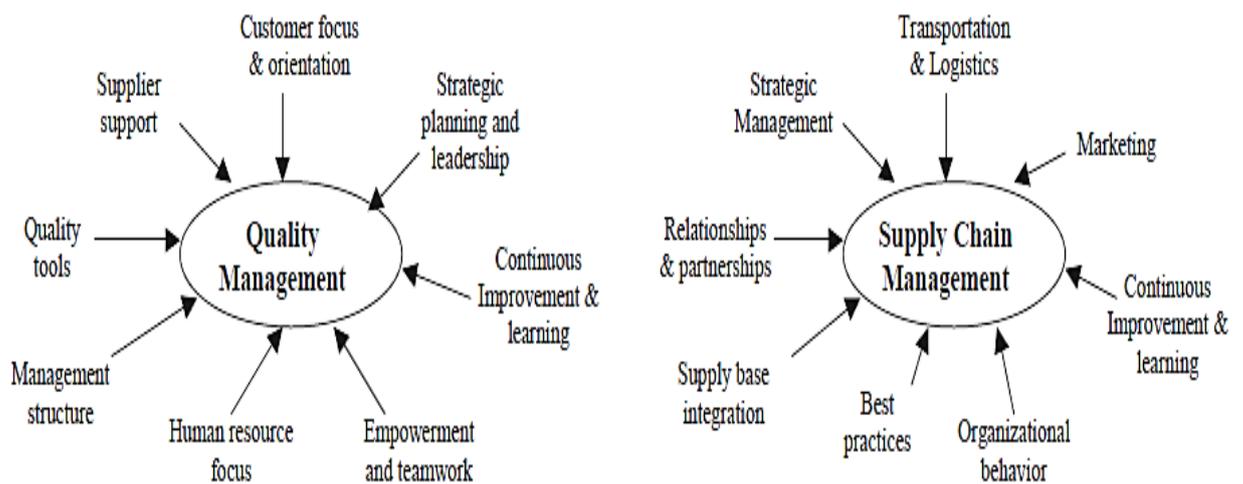


Figure 2.1 Components of SCQM

Source: Robinson and Malhotra (2005)

In the literature reviewed, the researcher discovered that, in all, SCQM practices can be classified into nine areas. The identified categories and their related concepts are presented in Table 2.1 as follows:

Table 2.1 Categories and Concept related to SCQM practices

Variable	Dimensions	Concepts	Source
Supply Chain Quality Management	Supplier Focus	In order to manage the relationship with suppliers in the system, mechanisms, infrastructure, and tools are developed.	Azizi et al., (2016)
		Choose suppliers based on their quality as opposed to other variables such as price, for example.	Sadikoglu and Zehir (2010)
		Suppliers are evaluated and ranked according to a detailed system in place at the organization.	Vanichchinchai and Igel (2011)
		Suppliers are involved in the design and development of product quality, as well as the manufacturing process.	Foster Jr. et al., (2011)
	Customer Focus	The system has mechanisms, infrastructure, and tools in place to manage the connection between the company and its consumers.	Azizi et al., (2016)
		Consumers' requirements and expectations are monitored and identified in an effective and consistent manner, both for current and prospective customers.	Fening et al., (2013)
		The directors and employees' familiarity with the outcomes of customer satisfaction surveys is important.	Chaghooshi et al., (2015)
	Quality/Supply Chain Management Leadership	The supply chain's leadership and quality management can be centered in a single department.	Fening et al., (2013)
		Support and involvement from top management in regard to supply chain quality.	Azizi et al., (2016)
		The supply chain's senior management's endeavor to instill a quality culture and quality policy throughout the supply chain.	Sharma and Modgil (2015)

		High-level management's understanding of and capacity to manage quality and quality management throughout the supply chain.	Panuwatwanich and Nguyen (2017)
Supply Chain Integration		Quality management initiatives should be aligned with supply chain management strategies.	Sadikoglu and Zehir (2010)
		Working with other members of the supply chain to develop and review supply chain quality policies and initiatives.	Azizi et al., (2016)
Process Approach		Integration and compatibility across the various operations in the supply chain are important considerations to make.	Soares (2017)
		Involvement in the design and enhancement of quality processes in the supply chain sourcing by other companies (supplier selection).	Song et al., (2017)
		Cooperation and partnership in product design and process improvement with other enterprises in the supply chain.	Azizi et al., (2016)
Product Design		The majority of product problems are caused by poor design, either in the items themselves or in the manufacturing processes. The manufacturing process begins with the introduction of the raw material into the system.	Rashid and Aslam (2012)
		Communication amongst all stakeholders, including customers, suppliers, engineers, and the design team, among others, early in the design phase might help to limit the number of subsequent design revisions.	Song et al., (2017)
Quality Data and Reporting		It is the timely collecting and reporting of quality-related data such as customer satisfaction, quality costs, error rates, rework, defects, and scrap, among other things, that serves as the foundation for quality improvement initiatives.	Rashid and Aslam (2012)
		The timely collection, availability, and application of quality data are critical in supplier quality management, design improvement, and the improvement of	Kaynak and Hartley (2008).

		team performance, among other applications.	
	Supply Chain Information System	The application of information and communication systems and technologies that have been recognized in the distribution chain.	Azizi et al., (2016)
		The ability of information systems in the recording of product processes along the supply chain is discussed here.	Kaynak and Hartley (2008).
		It is the ability of information systems to provide regular and timely reporting of information linked to product quality, such as quality spending, on a regular and timely basis.	Gu et al., (2017)
	Human Resource Development	Employees should be empowered and educated on quality-related issues.	Basheer et al., (2019)
		Teams have been formed to work with representatives from companies in the supply chain to fix quality issues.	Azizi et al., (2016)
		The degree to which the common quality culture among corporate employees is similar to and consistent with the common quality culture among employees of other enterprises in the supply chain.	Thai and Jie (2017)

Source: Author's Construct (2023)

After a review of the nine SCQMP, the researcher selected five SCQMP for the current study. These dimensions are: customer focus, supplier focus, quality leadership, supply chain integration and human resource management. Each of these are explained in the following subsections:

2.2.2.1 Customer Focus

Customer focus refers to the process of developing and delivering products and services that meet the needs and expectations of customers both now and in the future (Kaynak and Hartley, 2008). Exceeding customers' expectations is another phrase for putting the

customer first in order to secure long-term organizational success and survival (Truong et al., 2014). TQM involves maintaining constant touch with consumers in order to discover their changing needs and requirements through methods like as focus groups and customer site visits, and performance is regularly measured against those requirements (Song et al., 2017; Basheer et al., 2019). The internal customers, whose work is dependent on the work of other employees, are also crucial, and employees must consider themselves to be both customers of and suppliers to their fellow colleagues (Arumugam et al., 2009). Indeed, quality begins and ends with the demands of the consumer, which is why a strong emphasis on customer service is essential.

Customer focus is often regarded as a critical component of every successful business. All efforts, including the development of new products/services, production, marketing, distribution, and after-sales services, should be focused on meeting the needs of customers in order to be successful (Sila and Ebrahimpour, 2005). Customers' expectations and market prospects are better understood when customer focus practices are implemented, and this helps businesses succeed (Lakhal et al., 2006). Firms can take an active role in the planning of design, purchasing, production, distribution, and other activities. Firms, for example, can balance supply and demand, hence lowering volatility in process results (Nair, 2006; Sila and Ebrahimpour, 2005). By understanding customer demand, it is possible for a corporation to properly coordinate machinery, equipment, and personnel in order to reduce the complexity of the manufacturing process and its variability (Aquilani et al., 2017).

2.2.2.2 Supplier Focus

In a TQM environment, suppliers and buying departments collaborate to decrease costs and improve quality on an ongoing basis (Aquilani et al., 2017). This is possible because teams bring consistency of effort and knowledge to the table. Buyers should select suppliers on the basis of quality rather than just on the basis of price, and they should collaborate with

them to improve the quality of their products and services (Hackman and Wageman, 1995; Demirbag et al., 2006;)

An important aspect of a strategic collaboration with suppliers is the emphasis on a long-term, mutually beneficial relationship (Hoegl and Wagner, 2005). As a result of these partnerships, the parties involved are able to achieve mutually advantageous outcomes for all parties concerned and maintain engagement in one or more critical strategic areas amongst the parties (Dubey et al., 2019). Besides, strategic alliances with suppliers allow organizations to collaborate more effectively and ensure responsibility for the product's success. Participating early in the product-design process can offer more cost-effective design possibilities, assist in the selection of the best components and technologies, and assist in design evaluation (Dubey et al., 2019). Strategically linked groups can also cooperate closely and avoid the loss of time or effort that would otherwise occur (Joshi et al., 2018).

2.2.2.3 Quality Leadership

The management duty of sustaining and exercising an organization's vision in relation to customer requirements, falls under the purview of leadership (Demirbag et al., 2006). Leaders may organize and synergize people's actions in order to achieve the shared aim of the organization, according to total quality management theory (Goetsch and Davis, 2006). With a full commitment to a total quality setting, leaders can achieve this purpose.

To support change initiatives, the leadership of a company has a critical role to play. This includes excellent planning, employee motivation, and the supply of training and tools to assist with these activities (Das et al., 2008). It is the management's role to convey the vision and quality policy, to design and implement quality goals, and to implement continuous improvement programs in order to achieve those goals. There have been

numerous studies conducted that have stressed the relevance of the role that senior management plays in the overall effectiveness of quality programs across the supply chain (see Robinson and Malhotra, 2005; Kaynak and Hartley, 2008; Ou et al., 2010). Top management is responsible for developing quality measurement and performance among all of the entities in the supply chain, as well as managing the internal organizational efforts, in order to manage quality initiatives throughout the supply chain (Robinson and Malhotra, 2005). In this context, leadership means that top management shapes connections with supply chain partners while also cultivating a culture that encourages continual improvement, open communication, and cooperation without obstacles (Kaynak and Hartley, 2008).

Customers are the driving force behind every aspect of any company's operations. Because of this, the requirements of customers must be addressed by all employees, not just top management (Lakhal et al., 2006). Support from the company's top management is vital for ensuring that the required resources are made available so that market studies may be conducted in order to identify and satisfy the needs and wants of customers (Kaynak, 2003; Karuppusami and Gandhinathan, 2006). The selection process will be based on more stringent criteria, such as quality, reliability in delivery operations, and service, which will be reviewed by the company's top management. Doing this guarantees the organization has suppliers that are reputable and of excellent quality (Flynn et al., 1995; Trent and Monczka, 1999).

2.2.2.4 Supply Chain Integration

Among the ways to conceptualize SCM is through supply chain integration (SCI), which has the benefit of improving supply chain performance (Alfalla-Luque et al., 2013; Ataseven & Nair, 2017). An organization's level of collaborative procedures in managing intra- and inter-organizational operations with channel partners is characterized as the level

of SCI attained by the company (Flynn et al., 2010). Because integration is defined as the digital connection of business processes within an organization as well as between organizations that include upstream suppliers and downstream customers, it has been identified as a leading research topic within the fields of information systems and SCM (Rai et al., 2006; Flynn et al., 2010; Ou et al., 2010; Ataseven and Nair, 2017).

Global and real-time collaboration enable firms to continuously improve partner-related processes and procedures by collaborating with partners around the world (Lee et al., 2007). SCI also allows firms to quickly react to changes in technology and the market (Lee et al., 2007). This is due to the fact that, in today's business environment, competition takes place across supplier networks rather than between standalone enterprises (Christopher, 2016). As a result, improved supply chain performance in a dynamic and competitive business environment could lead to the achievement of long-term competitive advantage.

Firms with excellent collaboration practices are more likely to survive and remain in business in a dynamic and competitive business climate (Kim, 2006; Flynn et al., 2010). To give the maximum value to the end consumer while also lowering costs and delaying the introduction of new products and services, collaborative inter- and intra-organizational management is employed on the strategic, tactical, and operational business processes (Yu et al., 2013; Wong et al., 2017). As a result, businesses who do not emphasize SCI will not be able to reap the full benefits of implementing a solid supply chain strategy. Increased inventory costs, delayed procurement, decreased product quality, and inaccurate product estimates are just a few of the consequences of a lack of SCI for both the focal organization and all of its supply chain partners (Christopher, 2016; Wong et al., 2017).

2.2.2.5 Human Resource Management

Human resource (HR) is considered to be the most significant resource in every organization, and it is also a critical aspect in determining the success of businesses. Even if a corporation possesses cutting-edge technologies and equipment, human resources are needed to operate them. Human resource management (HRM) refers to the process of creating a positive work environment for employees in which they are trained and given the authority to carry out their responsibilities (Choi and Eboch, 1998; Samson and Terziovski, 1999). HR managers are individuals that translate market and consumer needs into design concepts and ensure that staff have the knowledge and skills necessary to design products and services in accordance with customer requirements through quality-related training programs (Ahire and Dreyfus, 2000; Zu et al., 2008). Additionally, it assists employees in learning how to apply quality improvement methods, such as statistical approaches, fool-proofing for process design, and other similar tools, in their regular work activities (Sila & Ebrahimpour, 2005; Tari et al., 2007).

The success of every organization is dependent on the quality of its human resources and the effectiveness with which they are managed in order to assist the companies in achieving their objectives (Berger & Ghei, 1995). TQM can only be successful if human resources are actively involved in the process and are committed to the goals of the process (Thiagarajan & Zairi, 1997). Therefore, it is essential for each individual in the business to understand his or her responsibility in ensuring that quality is maintained. In truth, one of the fundamental philosophical principles of change achievement in an organization is the requirement to maximize the engagement of all human resources (Thiagarajan & Zairi, 1997). The fundamental significance of workers participation in the quality process of an organization is founded on the belief that the best process innovation ideas will emerge

from the people who are actually doing the work in the business (Berger & Ghei, 1995; Thiagarajan & Zairi, 1997).

2.2.3 Firm Performance

The amount to which a company meets its business objectives is referred to as its performance (Xu et al., 2014). Firm performance can be divided into eight categories: operational performance, market performance, financial performance, customer performance/satisfaction, innovation performance, employee performance, product quality performance and competitive advantage (Li et al. 2006; Miguel and Brito, 2011; Duran and Akci, 2015). For the purpose of this study, operational, financial and customer performance have been used as proxies for firm performance.

Operational performance (OP) refers to the ability of a corporation to reduce management expenses, order time, lead time, improve the efficiency with which raw materials are used, and increase distribution capacity (Heizer et al., 2008). OP is a vital enabler that cannot be ignored when attempting to quantify the entire performance of the supply chain (Flynn et al., 2010). The ability of the supply chain to adjust to fluctuating market demand is one of the indicators in the operational dimension that have been used by a number of studies for supply chain performance metrics (Yuen and Van Thai, 2017). In a similar vein, other scholars defined the following as the major measures of operational performance: cost reduction, lead time shortage, quality, delivery, and inventory turnover (Kaynak and Hartley, 2008; Flynn et al., 2010; Cheng et al., 2016).

A company's financial performance (FP) relates to how successfully it meets its economic objectives in terms of cost reduction, profitability, return-on-investment (ROI), and return-on-sales (ROS) (Li et al., 2006; Flynn et al., 2010). Because manufacturing firms strive to reduce costs while increasing profits, their efforts in production planning should be

evaluated on a financial basis (Li et al., 2006). Cost reduction, return on assets, return on equity, return on investment, and return on sales are some of the financial indicators that have been routinely employed by prior supply chain scholars to analyze the financial situation of organizations (Flynn et al., 2010; Chang et al., 2016; Bruce Rockson et al., 2017).

Customer performance refers to the extent to which a firm has achieved its customer objectives (Choi and Eboch, 1998). Customers who are satisfied with a company's products or services are less likely to switch to a competitor's products or services, according to Buchanan and Gillies (1990). As a result, market share is retained. In addition, customers tend to be less price sensitive or even willing to pay a higher price, which can result in an increase in sales and returns on investments (Buchanan and Gillies, 1990). A high-quality product or service that is given at an affordable price will increase consumer satisfaction and loyalty (Choi and Eboch, 1998). Similarly, a satisfied consumer will recommend the business to other possible customers.

2.2.4 Firm Reputation

Selvaraj and Joseph (2014) defined corporate reputation as the perception of an organization's ability to be trustworthy, consistent, and fair by its customers. Intangible assets such as corporate reputation is regarded to be the most valuable intangible assets that businesses can own (Lopez, 2006). Corporate reputation can have an impact on a company's ability to develop long-term competitive advantages as well as its ability to increase its intrinsic value (Roberts and Dowling 2002; Ang and Wight, 2009). Some scholars have claimed that the relationship between corporate reputation and performance can be a two-way street (de la Sabate' and Puente, 2003; Lo'pez and Iglesias, 2010), whereas others have argued that the relationship is one-way only (Park et al., 2014). It is a collective judgment

of an organization made by stakeholders that takes precedence over their actual knowledge of the organization (Van der Merwe and Puth, 2014).

Several factors influence an organization's reputation, including customer satisfaction and the quality of its services and products, corporate transparency, social responsibility, staff qualifications, social facilities, rights provided to employees, salary policy, in addition to the prevention of unfair competition (Golgeli, 2014). In the case of individual stakeholders, reputation appears to be a specific and centered concept that is founded on social expectations of those stakeholders or on their points of view (Brown et al., 2006; Fombrun et al., 2015). The importance of reputation in business cannot be overstated. As Wong and Boh (2010) point out, a person's reputation is identical with his or her skill, efficacy, and dependability. Therefore, organizational reputation is significant because it reduces the uncertainty that stakeholders encounter when evaluating organizations as possible suppliers of products and services (Rindova et al., 2005).

Over time, a company's reputation may be advantageous. The various benefits of having a good reputation include cost savings because suppliers and employees want to be associated with the company; easier access to capital because of the perception of lower risk; and the ability to charge higher prices in order to generate higher margins than competitors (Fombrun, 1996; Roberts and Dowling, 2002). The persistent nature of a company's reputation leads to long-term quality and overall performance that is not subject to short-term fluctuations, making it one of the most important intangible assets for a company (Surroca et al., 2010).

2.3 Theoretical Framework

This section explains the theories that applies to the study. The study is underpinned by the resource-based view, resource dependency theory and the transaction cost theory. Each of these theories are explained in the following subsections:

2.3.1 Resource Based View

Barney (1991) offered a hypothesis based on strategic management literature that claims that businesses compete depending on the resources and talents they have available to them. He emphasized that resources are any tangible or intangible assets that a company has in its custody or control, whereas capabilities are the abilities to use those assets to do things or complete tasks. The availability of incomparably valuable, scarce, irreplaceable, and non-duplicable resources enables businesses to implement value-creating strategies that are difficult for competitors to replicate, as well as to develop innovations that are driven by exclusive access to and a combination of outstanding knowledge (Barney 1991).

In its most basic form, the resource-based view (RBV) theory states that businesses compete against one another depending on the resources and capabilities that they have (Hove-Sibanda et al, 2018). In particular, the RBV is concerned with the competitive advantages associated with a firm's possession of heterogeneous resources, which comprise financial, physical, human, technological, organizational, and reputational capabilities, as well as other resources (Hove-Sibanda et al, 2018). Greater performance, according to the hypothesis, can be accomplished by acquiring and using a firm's unique resources in comparison to other businesses operating in the same market.

Kaliani Sundram et al., (2016) applied the RBV in their study of SCM practices and firm performance and found that RBV results in value creation and sustainability when used as a comparison measure of the company's better achievement in either large size businesses

or small organizations. The successful integration of all departments within an organization to raise productivity output, reduce supply chain barriers, and ultimately improve company performance, can be considered in a similar vein as the RBV (Hashmi et al., 2020). Because of this, RBV provides a holistic perspective on an organization's capabilities and how they are employed to achieve competitive advantage and extraordinary results (Hove-Sibanda et al, 2018).

Based on this principle, a company wanting to gain competitive advantage will use its internal resources to obtain sustainable goods and services, as well as to conduct its business in a way that maximizes value for money while also increasing customer happiness. The current study is positioned within the RBV theory and tries to investigate how the adoption of SCQMP improves the performance of manufacturing firms in Ghana. The ability to move and transport medicines and medical supplies to clients is an intra-firm activity that is situated within the RBV theory. While the logistics unit within the company is in charge of delivering the final product to customers, the production and marketing unit must first determine the quantity of products to be sold, as well as the estimated revenue it would bring in. The inability of one unit to fulfill its responsibilities could have a negative impact on the overall operation of the company.

2.3.2 Resource Dependency Theory

Pfeffer and Salancik (1978) developed the Resource Dependency Theory (RDT). The RDT was developed in order to characterize inter-firm linkages. Based on the work of Pfeffer and Salancik (1978), businesses should aim to reduce uncertainty in the face of scarce and valued resources by forming relationships with other organizations throughout the value chain. Companies should try to rearrange their dependent connections by decreasing their reliance on some partners while increasing their reliance on others, thereby shifting the power structure (Pfeffer and Salancik, 1978). Rather than concentrating on internal

resources within a firm, this theory focuses on the inter-organizational relationships on which enterprises rely in order to exchange or acquire external resources from other organizations. For instance, suppliers who are financially dependent on their customers for resources were more likely to cooperate and comply with buyer expectations, such as collaborating in new product development or adjusting operations to meet the specifications of newly introduced products (Liu et al., 2013).

The fundamental principle in manufacturing organizations is that information and material flows are coordinated in order to facilitate inter-organizational collaboration. To reduce uncertainty, supply chain members establish formal and informal information sharing agreements, put in place appropriate information systems, and share information such as future strategic requirements and input from end users (Chae et al., 2005). For example, the capacity to support alignment of information needs across partner businesses is a precondition for a company's success in terms of financial performance. Thus, supply chain partners must work hard to remove unpredictability caused by their reliance on others, and this is accomplished through the development of collaborative partnerships with their trade counterparts (Chae et al., 2005).

Manufacturing companies do not operate in a vacuum; rather, they rely on external partners to ensure their continued success (Carr and Smeltzer, 2002). Manufacturing firms that establish collaborative relationships with suppliers and customers, as demonstrated in this study, benefit in terms of sharing information about raw material supply (from suppliers) and total quantity of products required (from customers), thereby balancing demand and supply (Carr and Smeltzer, 2002). Furthermore, the company would be able to reduce unnecessary spending whilst simultaneously improving its financial performance.

2.3.3 Transaction Cost Theory

The transaction cost theory (TCT) was popularized by Williamson (1981). According to Williamson (1981), transaction costs are significantly influenced by uncertainty and opportunistic behaviour. TCT which is akin to resource dependence theory, holds that businesses should attempt to reduce uncertainty in their interactions whenever possible. In contrast, research suggests that a reduction in exchange uncertainty is only desirable to the degree that it results in a reduction in transaction costs (Cannon et al., 2008). In most studies underpinned by transaction cost theory, the role of an organization as a tool for minimizing exchange uncertainty is the focus of the research questions (see Neumann and Fink, 2007; Mishra et al., 2007; Cannon et al., 2008). In particular, exchange between businesses may increase the risks associated with opportunism, particularly when a corporation invests in an asset that is specific to the exchange relationship, such as information technology (Neumann and Fink, 2007). In addition, new technologies, such as electronic data interchange (EDI), can be utilized to lower transaction costs through improving information processing capabilities and coordination (Mishra et al., 2007). For example, there is no need to verify raw materials delivered by a certified supplier because the certification serves as a testimonial of trust and transparency in the course of conducting business between the two parties involved in the transaction. As a result, the TCT has been chosen as one of the theories that underpin this study.

2.4 Empirical Review

This section presents a review of previous studies related to the subject under investigation, showing the methodology and the different variables employed in the study and how these variables influence or did not influence firm performance. The researcher limited the review to papers published on SCQM/TQM from 2010 to date.

Sadikoglu and Zehir (2010) examined the mediating impacts of employee performance and innovation performance on the relationship between TQM practices and firm performance, as well as the relationships between TQM practices and numerous performance metrics in Turkey. They employed the quantitative research method and 373 responses were collected from randomly selected ISO 9001:2000 certified firms in different industries. The result showed that TQM has a positive impact on creativity, staff performance, and the overall performance of a company. Furthermore, the research backs up the hypothesis that employee and innovation performance influence the relationship between TQM procedures and business performance.

Foster Jr. et al., (2011) studied the comparison of how operations and supply chain managers use quality tools and methodologies. The study was conducted in the USA. They employed the quantitative method, with 82 responses collected from members of the association for operation management and supply chain professionals. The findings revealed evidence to support the concept that quality management is approached differently by operations and supply chain managers. In addition, operations managers are more likely to manage supply chains using procedural approaches

Sharma and Modgil (2015) investigated the value of combining supply chain management and total quality management (TQM) approaches to improve corporate performance among sample of manufacturing firms in India. They employed the quantitative method and collected 80 responses from different manufacturing firms and submitted that TQM has a different impact on business performance depending on the industry.

The relationship between organizational culture (OC) and Total Quality Management (TQM), as well as the impact of TQM adoption on organizational performance improvement was carried out by Panuwatwanich and Nguyen (2017). They employed the

quantitative method with 104 responses collected from Vietnamese construction firms. The results showed that organizations dominated by either clan or adhocracy cultures were shown to create a favorable environment for successful TQM implementation, whereas those controlled by both market and hierarchy cultures did not. The research also revealed the existence of a strong and positive link between TQM deployment and improved organizational performance.

To fill the gap in the literature by examining the relationship between SCQM techniques and quality performance outcomes empirically, Soares (2017) applied the social network theory and discovered that at the aggregate level, the data demonstrated statistically significant results for the performance impact of SCQM techniques on quality. The outcomes of the individual level examination of SCQM practices, on the other hand, appear to differ from one practice to the next. Customer focus with the highest beta value was determined to have the largest impact on quality performance across the other SCQM methods. The study conducted among 325 UK-based manufacturing firms.

The summary of previous empirical studies is presented in Table as follows:



Table 2.2 Summary of Empirical Studies

Author(s), Year and Country	Main Purpose	Theoretical framework	Methodology	Main Findings
Sadikoglu and Zehir (2010) Turkey	To examine the mediating impacts of employee performance and innovation performance on the relationship between TQM practices and firm performance, as well as the relationships between TQM practices and numerous performance metrics.	N/A	Quantitative method, 373 responses collected from randomly selected ISO 9001:2000 certified firms in different industries.	TQM has a favourable impact on creativity, staff performance, and the overall performance of a company. Furthermore, the research backs up the hypothesis that employee and innovation performance influence the relationship between TQM procedures and business performance.
Vanichchinchai and Igel (2011) Thailand	The purpose of the study was to look into the connections between total quality management practices (TQMP), supply chain management practices (SCMP), and firm supply performance (FSP) in Thailand's automotive industry.	Resource-Based View	Quantitative method, and the use of questionnaire to collect data (actual number not specified).	For Thailand's automotive sector, the SCMP, TQMP, and FSP measurements are reliable and valid. TQMP also has a considerable indirect good impact on FSP through SCMP, in addition to having a direct positive impact on SCMP and FSP.
Foster Jr. et al., (2011) USA	A comparison of how operations and supply chain managers use quality tools and methodologies	N/A	Quantitative method, 82 responses collected from members of the association for operation management and supply chain professionals.	The study revealed evidence to support the concept that quality management is approached differently by operations and supply chain managers. In addition, operations managers are more likely to manage supply chains using

				procedural approaches like ISO 9000 and supplier evaluation.
Fening et al., (2013) Ghana	To examined the linkages between total quality management and organizational survival in manufacturing companies in Ghana.	Resource-Based View	Quantitative method, 101 valid responses collected manufacturing companies	The seven Total Quality Management Elements (top management information, training, customer-driven information, process control and improvement, employee empowerment, supplier involvement, and communication) were found to have a considerable positive effect on organizational performance.
Chaghooshi et al., (2015) Saudi Arabia	To obtain a better understanding of the links between SCQM and competitive advantage.	N/A	Quantitative method, 68 responses collected from supply chain managers in different companies	The SCQM and competitive advantages have a significant relationship, according to the findings. It also demonstrates that "customer attention and quality" are the most critical variables in the linear combination of SCQM and competitive advantages.
Sharma and Modgil (2015) India	To determine the value of combining supply chain management and total quality management (TQM) approaches to improve corporate performance.	N/A	Quantitative method, 80 responses from different manufacturing firms.	TQM has a different impact on business performance depending on the industry, according to the study.
Azizi et al., (2016)	In Alyaf Company, Iran, to investigate the influence of knowledge management practices on	Resource-Based View	Quantitative method, 68 questionnaire responses	The results revealed that knowledge management techniques and supply chain quality management have a

Iran	supply chain quality management and competitive advantage.		collected from company executives	positive and significant causal link. Although there was no direct link between knowledge management and competitive advantage, there was an indirect link between the two factors.
Panuwatwanich and Nguyen (2017) Vietnam	To investigate the relationship between organizational culture (OC) and Total Quality Management (TQM), as well as the impact of TQM adoption on organizational performance improvement.	N/A	Quantitative method, 104 responses collected from Vietnamese construction firms.	Organizations dominated by either clan or adhocracy cultures were shown to create a favorable environment for successful TQM implementation, whereas those controlled by both market and hierarchy cultures did not. The research also revealed the existence of a strong and positive link between TQM deployment and improved organizational performance.
Soares (2017) UK	To fill the gap in the literature by examining the relationship between SCQM techniques and quality performance outcomes empirically.	Social Network Theory	Quantitative method, 325 responses collected from UK-based manufacturing firms	At the aggregate level, the data demonstrated statistically significant results for the performance impact of SCQM techniques on quality. The outcomes of the individual level examination of SCQM practices, on the other hand, appear to differ from one practice to the next. Customer focus with the highest beta value was determined to have the largest impact on quality performance across the other SCQM methods.

<p>Song et al., (2017)</p> <p>China</p>	<p>To distinguish between intra-SCQM and inter-SCQM capabilities in supply chain quality management (SCQM), and to investigate the impact of intra- and inter-food SCQM on food safety and quality, as well as the impact of food SCQM on domestic and export performance through food certification and corporate reputation.</p>	<p>Resource-Based View</p>	<p>Quantitative method, secondary data</p>	<p>It was discovered that intra-SCQM improves sales in the local market, with company reputation as a mediating factor, whereas foreign performance is dependent on both intra- and inter-SCQM, with food certification as a mediating factor.</p>
<p>Gu et al., (2017)</p>	<p>To identify the latest themes through reviewing prior quality management and supply chain management (SCM) literature</p>	<p>N/A</p>	<p>Qualitative method, interviews and secondary data</p>	<p>Manufacturing organizations are transitioning from supplying products to delivering services, according to the study, which necessitates fundamental adjustments, particularly in supply chains.</p>
<p>Subhan and Euko- Putro (2017)</p> <p>Indonesia</p>	<p>Determine the impact of supply chain management and quality management techniques on competitive advantage and firm performance, either partially or concurrently, and the function of business age in modulating the relationship between competitive advantage and firm performance.</p>	<p>N/A</p>	<p>Quantitative method, 200 responses collected from SMEs</p>	<p>According to the findings of the study, implementing supply chain management and quality management at the same time has a significant impact on boosting competitive advantage and business performance. Corporate age moderation plays a minor influence in enhancing the link between competitive advantages and firm performance in SMEs.</p>

<p>Iqbal et al., (2017)</p> <p>Pakistan</p>	<p>To investigate the major elements of Total Quality Management (TQM) and their impact on the performance of a sample of Pakistani service sector organizations.</p>	<p>N/A</p>	<p>Quantitative method. 220 responses collected from managerial level employees in Pakistan</p>	<p>Human Resource Focus (HRF), Customer Oriented Process Management (COPM), Top Management Commitment (TMC), and Strategic Alignment are the most critical aspects that determine corporate success, according to the findings (SA). The study also demonstrated the importance of TQM in contributing to business success in the service sector.</p>
<p>Thai and Jie (2017)</p> <p>Singapore</p>	<p>To look at the effects of total quality management (TQM) and supply chain integration (SCI) methods on the container shipping industry's firm performance (FP) in Singapore.</p>	<p>N/A</p>	<p>Quantitative method, 159 responses from shipping companies in Singapore.</p>	<p>TQM and SCI procedures both have beneficial effects on service quality and financial performance, although to varying degrees, and TQM also helps with supply chain integration.</p>
<p>Basheer et al., (2019)</p> <p>Pakistan</p>	<p>To find out how total quality management practices (TQMP), supply chain management practices (SCMP), information technology capabilities, supply chain technology adoption, and firm supply performance are related.</p>	<p>N/A</p>	<p>Quantitative method, 212 responses collected from logistics firms.</p>	<p>TQM has a positive effect on firm supply performance, according to the findings of the study. Also, both information technology capabilities and supply chain technology adoption appear to act as mediators between TQMP, SCMP, and firm supply performance.</p>

2.5 Conceptual Framework

In the previous sections, it has been shown that SCQMP has many dimensions which comprise of inter-firm and intra-firm activities. The inter-firm activities deal with activities between a firm and its external partners and are made up customer focus, supplier focus, supply chain integration and information system. Intra-firm activities, on the other hand, deals with activities that occur internally within a firm and are made up supply chain/quality leadership, human resource management, process approach, product design, quality data and reporting. All these variables may have different effect on firm performance. For the purpose of this study, three variables were selected from the inter-firm activities whilst two variables were selected from the intra-firm activities, giving five SCQMP. The variables selected are customer focus, supplier focus, supply chain integration, quality leadership, and human resource management. Customer focus, supplier focus and supply chain integration are underpinned by the RDT theory and TCT theory whilst quality leadership and human resource management are underpinned by the RBV theory. Figure 2.2 illustrates the link between the variables as follows:



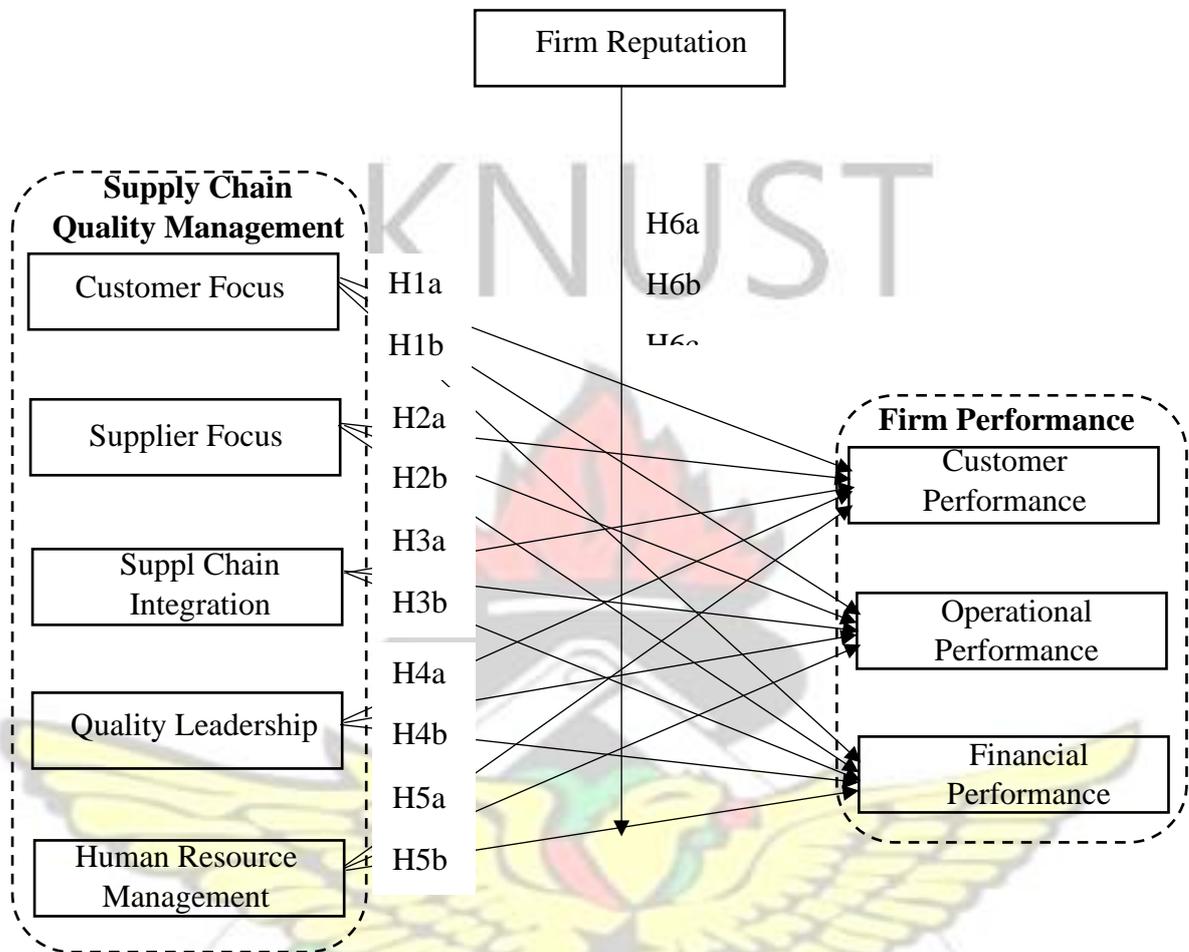


Figure 2.2: Conceptual Framework

Source: Author's own construct (2023)

2.5.1 Customer Focus and Firm Performance

There is evidence that suggests that customer-focused activities have a beneficial impact on quality performance both at the individual and aggregate level (Tan et al., 1999; Chen and Paulraj, 2004). The inclusion of customers in product design and development, for example, has been endorsed by prior researchers because it has the potential to alleviate quality concerns during the manufacturing stage (Flynn et al., 1994).

Employees that are familiar with the characteristics of products/services that provide benefits to clients can increase the efficiency of their jobs. As a result, errors are reduced to a minimum, and improvements in design, production, distribution, and other aspects of the process are offered (Fening et al., 2008). Also, because the requirements and wants of customers have been determined, businesses may concentrate their efforts on meeting those needs and wants (Dow et al., 1999). Moreover, focusing on the customer in terms of quality has the benefit of improving the productivity of internal processes (Lakhal et al., 2006; Fening et al., 2008; Zehir and Sadikoglu, 2010).

The only way a firm can preserve client loyalty, differentiate its products from those of competitors, and maximize the value that it provides to customers is through a close and efficient customer connection (Rahman and Bullock, 2005; Aslam et al., 2012). Customer-focused strategies such as recognizing and communicating future needs to customers, asking customer input, educating consumers, and providing after-sales services are all intended to improve market performance and supply chain performance as well (Abdallah et al., 2014). According to the findings of the study by Bayrakta et al. (2009), there is a direct positive relationship between customer relationship orientation and financial performance. Therefore, this study hypothesizes that:

H1a: Customer focus has a positive and significant effect on customer performance

H1b: Customer focus has a positive and significant effect on operational performance

H1c: Customer focus has a positive and significant effect on financial performance

2.5.2 Supplier Focus and Firm Performance

Currently available literature demonstrates that suppliers' quality and participation in a firm's operations have a positive, but not necessarily direct effect, on both operational and financial performance. For example, Forker et al. (1997) found that the relative efficiency

of suppliers influenced the association between QM methods and quality performance. According to Kaynak (2003), supplier QM is critical for efficient QM implementation since it has direct linkages with product/service design and business process management. The seminal work done by Baird et al., (2011) reported that while all QM practices were interconnected, supplier QM, process management, and quality data and reporting were found to be helpful in achieving operational performance goals.

Supply chain disruptions, such as communication failures and missing information, can occur when a company is inactive and does not engage in close engagement with suppliers (Harland et al., 2007; Thornton et al., 2016). An organization that supports and monitors its suppliers will be able to boost supplier satisfaction and trust in the relationship, thereby assisting them in maintaining their businesses and enhancing their sense of belonging (Goffnett and Goswami, 2016). This occurs because they believe that the purchasing firm has an interest in collaborating with them and aiming for excellence in business performance.

Relationships between buyers and suppliers, as well as coordination between them, are critical to the success or failure of supply chain networks (Truong et al., 2014). A strong working connection with manufacturers and suppliers is crucial to the success of most upstream supply chains because they rely on outsourcing and the procurement of raw materials (Song et al., 2016). In order to maintain a long-term relationship with suppliers, both buyers and suppliers must have their expectations met on a regular basis (Yoon and Moon, 2017). The company's operational efficiency is enhanced when the buyer and supplier form a mutually beneficial partnership (Spina et al., 2015; Tatoglu et al., 2016). To put it another way, a good relationship between buyers and suppliers allows them to be more responsive to changing market conditions. Therefore, this study hypothesizes that:

H2a: Supplier focus has a positive and significant effect on customer performance

H2b: Supplier focus has a positive and significant effect on operational performance

H2c: Supplier focus has a positive and significant effect on financial performance

2.5.3 Supply Chain Integration and Firm Performance

Prior research works have demonstrated a strong link between supply chain integration and both business and operational performance outcomes. For instance, Rosenzweig et al., (2003) assessment of the effects of an integration strategy on competitive capacities and company performance, found that the degree to which SCI intensity affects product quality and delivery reliability was found to be significant in both cases. Yeung (2008) study of organizational impact of strategic supply management on quality and organizational performance discovered that SCI increased on-time shipments, reduced operational costs, and, as a result, increased customer satisfaction and improved business performance.

Flynn et al., (2010) also discovered that supply chain integration was associated with both operational and business performance, drawing on the insights gained from the contingency and configuration theories. Furthermore, Huo et al., (2014) discovered how different types of supply chain quality integration were associated to quality-related performance in their study of the antecedents and effects of supply chain quality integration. Internal quality integration, in particular, was identified as a critical strategic resource for quality improvement (Huo et al., 2014).

Another point of view is that customer involvement directly increases the effectiveness of product/service design through participation on cross-functional design teams, contribution of new ideas, selection of ideas and features for further product/service development or selection of components for new products, among other activities (Forza and Filippini, 1998; Trent and Monczka, 1999). Furthermore, in the activities of production and

distribution, the ideas of customers serve as a foundation for identifying underlying concerns (Uluskan et al., 2016). Therefore, this study hypothesizes that:

H3a: Supply chain integration has a positive and significant effect on customer performance

H3b: Supply chain integration has a positive and significant effect on operational performance

H3c: Supply chain integration has a positive and significant effect on financial performance

2.5.4 Quality Leadership and Firm Performance

In the existing literature, there has been substantial studies demonstrating the positive influence of high-quality leadership on performance. For example, a study conducted by Rodgers and Hunter (1991) found that when senior management commitment to specified performance objectives was high, organizations had an average productivity boost of up to 56 percent. Several researchers, including Powell (1995), have found that senior management commitment to quality has a considerable impact on quality performance. According to a similar line of reasoning, Ahire and O'Shaughnessy (1998) demonstrated that high levels of top-level commitment resulted in higher-quality products. Samson and Terziovski (1999) also discovered that QM approaches were not equally predictive of operational performance in another investigation. Their research found only a statistically significant positive association between leadership and firm performance company, out of a variety of quality management approaches.

In their research, Birasnav et al. (2015) discovered that establishing affective leadership would be critical to improving the overall performance of the supply chain. The reason for this is that solid long-term relationships with suppliers are built via trust and a commitment to information sharing, and leadership plays a vital role in this process. It is therefore

possible to reduce the cycle time of a purchasing transaction through building trust and commitment in relationships, as well as by exchanging information. According to the findings of Ojha et al., (2018), transformational leadership enhances the behaviour of job performance in the supply chain, which in turn increases the company's ability to create value for shareholders (Chen et al., 2019). In purchasing management, leadership has a favourable impact on the supply chain, which has an impact on the ability of information processing and lowers cycle time in the purchasing process (Gosling et al., 2016). Therefore, this study hypothesizes that:

H4a: Quality leadership has a positive and significant effect on customer performance

H4b: Quality leadership has a positive and significant effect on operational performance

H4c: Quality leadership has a positive and significant effect on financial performance

2.5.5 Human Resource Management and Firm Performance

It was discovered by Kaya (2006) that effective human resource management can boost the influence of entrepreneurial orientation on business performance. In other words, if firms wish to grow their entrepreneurial activities, they must prioritize human resource departments and encourage them to adopt best practices. It is another way of saying that the ability to attract and retain personnel is a significant contributor to the overall effectiveness of an organization. In their study on human resource management in SMEs in Vietnam, King-Kauanui et al., (2006) provided evidence to support the importance of incentive compensation, among other HRM practices, on the overall performance of SMEs. When combined with a product differentiation strategy, Georgiadis and Pitelis (2012) discovered in their study of SMEs in the United Kingdom that having a generous compensation policy is positively associated to profit margins.

Comprehensive performance appraisal systems serve as the fundamental yardstick for evaluating an individual's performance, highlighting opportunities for future career progression and enhanced individual performance in addition to identifying areas for improvement (Mullins, 2002). In the absence of a clearly defined procedure and the participation of only managers, a system is more likely to produce low motivation and a negative relationship between management and the employees (Ulrich & Brockbank, 2005).

A number of crucial organizational domains, including team objective achievement (Scott and Tiessen 1999), project delivery (Davila, 2000), customer satisfaction (Hyvonen, 2007), have been proven to be influenced by HRM approaches. The use of project management practices has also been shown to improve performance by stimulating decision-making and continuous improvement (Nudurupati and Bititci, 2005), generating strategic alignment (Chenhall, 2005), and fostering organizational learning and innovation (Nudurupati and Bititci, 2005). According to Chenhall (2005), increased firm capabilities are likely to translate into higher levels of non-financial performance, such as higher levels of product and service quality, faster delivery times, greater flexibility in volume and product mix, and higher levels of customer satisfaction (Malina and Selto, 2001; de Leeuw and van den Berg, 2011), which, in turn, are likely to translate into higher levels of firm financial performance. Therefore, this study hypothesizes that:

H5a: Human resource management has a positive and significant effect on customer performance

H5b: Human resource management has a positive and significant effect on operational performance

H5c: Human resource management has a positive and significant effect on financial performance

2.5.6 Moderating Effect of Firm Reputation on the Relationship between SCQM and Firm Performance

Firm performance is also tied to how employees and customers perceived the organization as a whole. In simpler terms, the reputation of a firm determines how much effort and commitment employees put into their work. Employees that perform admirably are seen as a valuable asset and a cutting-edge organizational resource by their employers (Aghdasi et al., 2011; Nazari et al., 2011; Rao et al., 2014). Carmeli and Tishler (2006) asserted that employees with a high level of intelligence are better at managing their emotions, which results in improved performance. As a result, the success of the organization is dependent on the performance of its personnel (Pan, 2015). Although data is scarce, empirical evidence suggests that an organization's reputation encourages employee engagement while also promoting higher individual performance and, thus, better results (Karatepe, 2011). Fombrun (1996) asserted that when employees are empowered and involved in decision-making, they are more likely to have a better relationship with the company and to perform better than they would otherwise be expected to. Additionally, a stronger reputation in the eyes of employees is typically associated with schemes of benefits and incentives that motivate employees to perform better, which results in higher overall performance (Samnani and Singh, 2014).

To have an improved level of credibility and legitimacy, a firm's balanced reputation must improve (Parkhe, 1993). Particularly in emerging economies, where market inefficiencies and information asymmetry are common, these approaches are considered dependable quality and production standards (Gu and Lu, 2014). A company with a high intra-organizational SCQM will have a balanced reputation in the agro-food business because of

its capacity to coordinate all of its functional departments during quality control processes (Walker, 2010). This will result in many benefits (Ali et al., 2015; Gatzert, 2015). There is also evidence in support of the beneficial impact of company reputation on financial performance (Roberts and Dowling, 2002; Helm, 2007; Blajer-Gobiewska, 2014).

The most often studied theoretical perspective on this relationship is RBV, which defines corporate reputation as a strategic intangible resource that is difficult to copy by competitors and has the potential for value creation (Deephouse, 2000). As a result of this, stakeholders will be willing to pay premium pricing for a company's goods and services, which in turn will help to reduce information asymmetry in the market and increase their confidence and trust in the company (Saeidi et al., 2015; Graca and Arnaldo, 2016). Therefore, this study hypothesizes that:

H6a: Firm reputation has a positive and significant effect on the relationship between SCQM and customer performance

H6b: Firm reputation has a positive and significant effect on the relationship between SCQM and operational performance

H6c: Firm reputation has a positive and significant effect on the relationship between SCQM and financial performance

CHAPTER THREE

RESEARCH METHODOLOGY AND ORGANIZATIONAL PROFILE

3.1 Introduction

This chapter of the study describes, explains and justifies the methodology and methods that was adopted by the researcher to carry out the study. Of particular interest is the research design, population of the study, sampling technique and sample size, data collection method, data analysis method, ethical consideration and organizational profile.

3.2 Research Design

A research design is an overarching strategy that a researcher employs to integrate the various components of a study in a coherent and logical manner, thus ensuring that it will effectively address the research problem (Kumar, 2019). A research design serves as a grand plan for the collection and analysis of data (Saunders et al., 2016). There are three types of research design: explanatory design, descriptive design and exploratory design (Saunders et al., 2016). The explanatory design was adopted to carry out the study. By definition, an explanatory design is a strategy used to investigate a phenomenon that had not previously been studied or had not previously been well explained in a proper way (Saunders et al., 2016). Explanatory research seeks to determine the reasons for a particular issue by establishing cause-and-effect links between the variables under investigation (Kumar, 2019). Explanatory design focused on addressing the “what” and “why” of a research problem (Kumar, 2019).

The explanatory design is appropriate for the study because it is best suited in achieving the research objectives which seeks to examine cause-and-effects relationship between SCQMP and firm performance. The descriptive design is not appropriate for the study because it seeks to describes the characteristics of a population which is not the main focus

of the study. Likewise, the exploratory design does not fit into the context of the study because it is used to study problems which are not clearly defined and to obtain a deeper understanding of the issue. In this study, the research problem is clearly defined and so using the exploring design is not the most appropriate.

In particular, the study employed the survey approach to research. A survey research is carried out to investigate current phenomenon that is of interest to the researcher or other stakeholders (Kothari and Garg, 2018). The selection of the survey approach was justified on the grounds that it is the most effective method of fulfilling the study's objectives. The study targets a large number of different manufacturing companies in order to collect data to analyze the relationship between SCQMP and firm performance. Because it does not involve extensive contact with respondents, using a survey design offers the additional benefit of allowing for faster data collection and therefore saving time (Kothari and Garg, 2018).

In order to gather data for this investigation, the researcher used a quantitative approach. According to Creswell (2018), the goal of a quantitative research method is to determine whether or not two or more variables of interest are causally linked. Questions like "how long," "how many," and "to what extent/degree" can be answered quantitatively (Saunders et al., 2016). The purpose of this study was to determine the link between SCQMP and firm performance, hence a quantitative method was chosen. An exact correlation between these two variables can only be established using numbers. In light of this, the quantitative strategy was deemed to be the most successful method for achieving the study's research goals. It is also easier to conduct a quantitative study because it can be easily replicated (Saunders et al. 2016).

3.3 Population of the Study

The population of the study is made up of the firms in the pharmaceutical industries. It consisted of manufacturing and non-manufacturing firms specializing in drugs and medical supplies. Available data from Ghana Pharmaceutical Manufacturing Association (n.d), shows that there are about 30 manufacturing firms in Ghana. In addition, there are more than 4,067 registered pharmacies in the wholesale and retail business whilst the-counter medicine sellers (OTCMS) have a population of 19,962 (Ghana Pharmacy Council, n.d). However, in this study, OTCMS were excluded from the population due to limited knowledge in pharmaceuticals. Therefore, the population consisted of Pharmacies and manufacturing firms. This brings the total population to 4,097.

3.4 Sampling Technique and Sampling Size

It is not possible that the researcher could collect data from the whole population of manufacturing firms based in Accra. In view of this, there is the need for a sampling technique. A number of sampling techniques are available including purposive sampling, simple random sampling, systematic sampling, convenience sampling, stratified sampling among others (Saunders et al., 2016). In this study, the researcher used the convenience sampling technique to determine a sample size that was appropriate for the investigation.

Convenience sampling is defined as a non-probability sampling technique in which the researcher selects a subset of a population that is easier to reach or contact than the rest of the population (Kumar, 2019). According to Kumar (2019), there is no pattern or procedure to follow in order to obtain the respondents in convenience sampling. Here, the researcher merely chooses at random respondents who are close by or who are deemed 'convenient' by the researcher to collect data for the study. In view of this, the convenience sampling was employed to pick a sample size of 200 manufacturing firms. The choice of the

convenience sampling is because collecting data from respondents who live close by saves time and resources (Kumar, 2019).

3.5 Data Collection Method

This study was conducted solely with primary data, as was the case with the previous studies. The primary data was acquired through the use of a questionnaire instrument. Using primary data can be beneficial since it allows for a better knowledge of current issues by bringing in multiple stakeholders and parties that are interested in them to the table (Kothari and Garg, 2018). When first-hand information is used, reliability and validity are increased as well, as the outcome can be relied upon because the information was gathered from a reputable and established source (Kumar, 2019). Primary data collection in person, on the other hand, has the disadvantage of taking a long time and necessitating the availability of considerable financial resources (Saunders et al., 2016). Another disadvantage of utilizing primary data is that survey participants may provide erroneous responses to survey questions (Saunders et al. 2016). That notwithstanding, the survey questions were designed to be answered by senior level managers and so it is assumed that the responses received were answered accurately.

3.5.1 Questionnaire instrument

The primary method of data collection in this study was the administration of questionnaires. It is widely accepted that questionnaires are the most common method of gathering data (Saunders et al., 2016). There are a variety of ways in which questions can be delivered to potential respondents, including by mail, email, online questionnaire, or face-to-face method (hand delivery). There is a single primary goal of a questionnaire, regardless of how it is distributed, and that is to efficiently collect responses from a large number of people (Saunders, et al., 2016). This study adopted the face-to-face method of collecting data from respondents from the various manufacturing firms. This method was

chosen because it allows for interaction with respondents in order to clarify any questions they might have in regard to their participation in the study.

For the purpose of this study, the close-ended questionnaire was employed to collect the data. Unlike the open-ended questionnaire, the close-ended questionnaire typically offers a set of responses (in the form of Likert scale) from which respondents can choose the correct response (Kumar, 2019). Closed-ended questionnaires with pre-prepared questions were used in this study with Likert scale responses ranging from 1 representing “strongly disagree” to 7 representing “strongly agree”.

The questionnaire was developed by adapting construct items from previous studies. The questionnaire contained four sections. The first section contained the demographic information of respondents; the second section to four sections contained the construct items of the study variables. In particular, the quality leadership construct contained five items and were adapted from Soares (2017); human resource management construct contained seven items and were adapted from Vanichchinchai and Igel (2011); supply chain integration construct contained ten items and were adapted from Soares (2017); customer focus construct contained nine items and were adapted from Soares (2017); supplier focus construct contained nine items and were adapted from Soares (2017). Firm reputation construct contained five items and were adapted from Nguyen and Leblanc (2001) and Walsh et al. (2009). In terms of the firm performance variables, customer performance contained three items and were adapted from Subhan and Putro (2017); operational performance contained five items and were adapted from Koh et al., (2007); financial performance contained three items and were adapted from Li et al., (2006). The constructs and source are presented in Table 3.1 as follows:

Table 3.1 Constructs and Source

Category	Constructs	No. of Items	Source
Independent	SCQM Practices		
	Quality Leadership	5	Soares (2017)
	Human Resource Management	7	Vanichchinchai and Igel (2011)
	Supply Chain Integration	10	Soares (2017)
	Customer Focus	9	Soares (2017)
	Supplier Focus	9	Soares (2017)
Dependent	Firm Performance		
	Customer Performance	4	Subhan and Putro (2017)
	Operational Performance	5	Koh et al., (2007)
	Financial Performance	3	Li et al., (2006)
Moderator	Firm Reputation	5	Nguyen and Leblanc (2001); Walsh et al. (2009).

Source: Author's construct (2023)

3.6 Data Analysis Method

Data analysis is the process of transforming raw data into information that can be used to make real-world decisions (Kumar, 2019). The study used a quantitative research method, as previously mentioned. The data was then subjected to a quantitative analysis in order to assess its importance. In this situation, descriptive as well as inferential statistics were used. The mean and standard deviation of the construct items and variables were determined using descriptive statistics. In order to determine the link between different variables used in the study, inferential statistics were used to make predictions in the form of structural equation modeling (SEM). The SEM is the best strategy for complex models with a large number of latent variables (Hair et al., 2017). In particular, the study employed the partial least square-structural equation modeling (PLS-SEM). The Smart PLS software version 3 was used to perform the PLS-SEM analysis.

3.6.1 Validity and Reliability

In a PLS-SEM investigation, researchers must first examine the measurement model to determine the construct variables' reliability and validity before moving on to hypothesis testing (Henseler et al., 2015). Average Variance Extracted (AVE), Composite Reliability (CR), Factor Loading, Cronbach Alpha, rho A, and the Heterotrait-Monotrait (HTMT) ratio are some of the criteria that must be met when evaluating the reliability and validity of latent variables in a PLS-SEM investigation (Henseler et al., 2015).

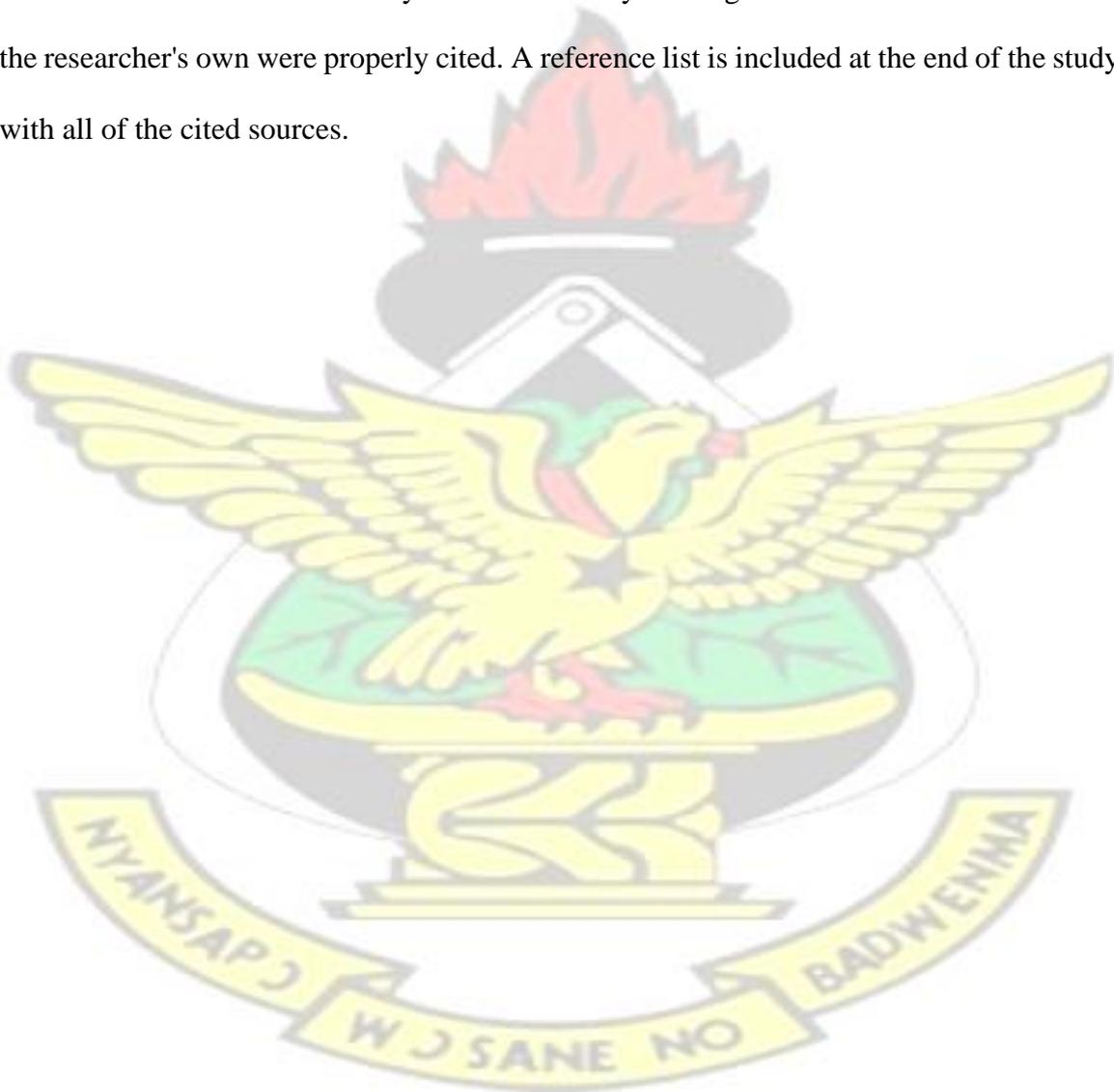
The CR, Cronbach alpha, and rho_A values are used to establish whether or not latent variables have appropriate internal consistency and reliability when testing for internal consistency and reliability (Henseler et al., 2015; Hair et al., 2017). Factor loadings should be 0.70 or better, CR should be 0.70 or better, and rho A should be 0.70 or better, according to the specified thresholds (Henseler et al. 2015; Hair et al. 2017). Cronbach alpha should also be more than or equal to 0.70. (Nunnally, 1978).

Furthermore, the HTMT ratio indicates whether or not the construct variables have strong discriminant validity (Henseler et al., 2015; Hair et al., 2017), whereas the AVE values indicate whether or not the construct variables have strong convergent validity (Henseler et al., 2015; Hair et al., 2017). Specifically, the AVE should be 0.50 or higher (Henseler et al., 2015), and the HTMT ratio should be 0.85 (Henseler et al., 2015) or 0.90 (Gold et al., 2001).

3.7 Ethical Consideration

Researchers' moral beliefs and values are on display when conducting field studies, and they play a crucial role in determining how accurate the research findings are (Kumar, 2019). The researcher considered a wide range of ethical issues while conducting the study. In the first place, the researcher's supervisor gave the go-ahead to conduct the study. Each

and every instruction was followed by the researcher, including the dissertation guidelines. After obtaining informed consent from participants, the researcher proceeded to collect primary data for the study. In order to make an informed decision about whether or not to participate in the study, participants were given the opportunity to learn more about the study's purpose. Aside from that, participants were notified that their responses to survey questions would be kept private and not shared with any third parties. As a final precaution, all forms of academic dishonesty were avoided by making sure that works that were not the researcher's own were properly cited. A reference list is included at the end of the study with all of the cited sources.



CHAPTER FOUR

PRESENTATION OF FINDINGS, ANALYSIS AND DISCUSSIONS

4.1 Introduction

This current section, chapter four focuses primarily on the presentation of data from survey, findings, analysis and discussions of results based on data given by the study respondents from survey. The data gathered was at the firm-level; the respondents used in the study were owners, heads of departments and managers of their respective companies. In this current chapter, the presentation of data includes demographic characteristics of the study respondents being presented in the form of basic frequencies and percentages. Secondly, the use of Cronbach alpha as a test for reliability of data, descriptive statistics to summarize responses of respondents, Pearson correlation and regression analysis employed to make conclusions based on the results from these tools.

4.2 Demographic Information of Respondents

This section of the study focuses on the demographic characteristics of the respondents, information like gender, age of the company, educational qualification of respondents, age of firms with respect to the number years in operation, respondents' level of management in their respective organization and the sizes of each respondents' firm were sought. The information was taken in order to appreciate the data gathered from survey. Table 4.1 presents the results obtained.

Table 4.1 Demographic Information of Respondents

Variable	Category	Count	% of n
Gender	Male	151	75.5
	Female	49	24.5
Age of Firm	1-5	26	13.0
	6-10	66	33.0
	11 – 20	73	36.5
	Above 20	35	17.5
	MSLC/JHS	-	-
Educational Qualification	SSSCE	-	-
	Diploma	49	24.5
	Degree	76	38.0
	Post Graduate	56	28.0
	Other (Specify)	19	9.5
Size of firm (full-time employees)	Below 50	108	54.0
	51 – 100	57	28.5
	Above 100	35	17.5
Level of management	Top management	83	41.5
	Middle management	86	43.0
	Head of departments	31	15.5
	Others	-	-
	0-5	84	42.0
Years in position	6-10 years	64	32.0
	11-15 years	52	26.0
	16-20 years	-	-
	21+	-	-

Source: Author's Construct (2023)

From Table 4.1, it can be observed that with regards to the gender of respondents the majority of respondents used in the study were found to be male, thus constituting 75.5% (151) of 200 respondents which was the total sample size and remaining proportion 24.5% (49) constituting their female counterpart. This shows that in the pharmaceutical industries in Ghana, there are more males in the sector compared to their female counterpart.

During survey, the ages of firms according to the number of years they have been operating were sought, however, it was observed that, from Table 4.1 majority of the businesses had their firm ages between 11-20 years (36.5%, 73), 33% (66) having their firm ages between

6-10 years and 13% (26) having their firms ages between 1-5. This signifies businesses visited have been in operation enough to give reliable responses on the industry.

Considering the fact that respondents were all in managerial positions, majority of the respondents were first degree holders (38%, 76), 28% (56) and 24.5% (49) were post graduate degree holders and diploma (HND) holders respectively. This signifies a well-educated respondent whose contribution towards the study was reliable, this was because, respondents could read and understand the aim of the study to give corresponding responses.

Concerning the sizes of business according to their full-time employees, majority of the firms had their company sizes between below 50, thus, 54% (108), 28.5% (57) between 51-100 and 17.5% (35) above 100 employees. Again, most of the respondents were middle level managers 43% (86) of the total sample and 41.5% (83) were top management level of their firms.

Lastly, with respect to years in position majority had experiences between 42% (84), 32% (64) had their working years between 6-10 years. This implies a very experienced respondents who could give reliable responses to the purpose of the study.

4.3 Reliability Assessment

With the use of SPSS version IBM 26 software, the study utilizes a Cronbach alpha coefficient test was used to assess the dataset's and research instrument's reliability; specifically, Alpha values were utilized to assess the data's internal consistency. Cronbach alpha coefficient values range from 0 to 1, with 1 indicating exceptional reliability. The closer the number is to 1, the better. An Alpha value of less than .70, on the other hand, is considered acceptable. As a result, in this study, a value of .70 will be allowed, while all values lower than that will be rejected. The results are shown in Table 4.2.

Table 4.2 Cronbach Alpha Values

Variables	Number of items	Cronbach Alpha
Quality Leadership	6	.876
Human Resource Management	7	.904
Supply Chain Integration	10	.870
Customer Focus	9	.905
Supplier Focus	9	.885
Firm Reputation	5	.881
Customer Performance	3	.823
Financial Performance	3	.833
Operational Performance	5	.849

Source: Author's Construct (2023)

Table 4.2 displays the Cronbach alpha values obtained for the research variables; as previously indicated, any value below the acceptable limit (.70) will be rejected. As a result, the values obtained for all of the study variables are greater than the acceptable values (.70), implying that the data obtained for all of the study variables was reliable and could be used for further analysis. This indicates that the data is very dependable and can be used for further analysis.

4.4 Descriptive Statistics

The descriptive statistics of the studied variables are the focus of this section of the study. The purpose of descriptive statistics is to offer a summary of the responses supplied by research participants using mean, standard deviation, minimum, and maximum values. A Likert scale is commonly used to capture responses. The survey responses were collected using a 7-point Likert scale for the purpose of the study. The results for the research variables are presented in Table 4.3.

Table 4.3 SCQMP (Descriptive statistics)

Quality Leadership				
Items	Minimum	Maximum	Mean	Std. Deviation
QL1	1.00	7.00	4.6927	1.48226
QL2	1.00	7.00	4.5667	1.42422
QL3	1.00	7.00	4.5092	1.49344
QL4	1.00	7.00	4.9598	1.38854
QL5	1.00	7.00	4.7558	1.45171
QL6	1.00	7.00	4.4400	1.53564
Total			4.6540	1.15059
Human Resource Management				
H1	1.00	7.00	4.6789	1.48939
H2	1.00	7.00	4.4648	1.52362
H3	1.00	7.00	4.5069	1.36965
H4	1.00	7.00	4.6513	1.46610
H5	1.00	7.00	4.6003	1.53326
H6	1.00	7.00	4.7394	1.44266
H7	1.00	7.00	4.5786	1.52803
Total			4.6069	1.21291
Supply Chain Integration				
SC1	1.00	7.00	4.2563	1.69378
SC2	1.00	7.00	4.5485	1.69354
SC3	1.00	7.00	4.4400	1.62777
SC4	1.00	7.00	4.7436	1.65106
SC5	1.00	7.00	4.7621	1.60044
SC6	1.00	7.00	4.4030	1.63119
SC7	1.00	7.00	4.4950	1.59458
SC8	1.00	7.00	4.2904	1.60897
SC9	1.00	7.00	4.3715	1.60077
SC10	1.00	7.00	4.7950	1.46070
Total			4.5105	1.09769
Customer Focus				
CF1	1.00	7.00	4.6350	1.62015
CF2	1.00	7.00	4.7746	1.51802
CF3	1.00	7.00	4.5748	1.52420
CF4	1.00	7.00	4.7600	1.54412
CF5	1.00	7.00	4.9300	1.56761
CF6	1.00	7.00	4.8387	1.57580
CF7	1.00	7.00	4.8476	1.48643
CF8	1.00	7.00	4.7805	1.51623
CF9	1.00	7.00	4.9099	1.59722
Total			4.7835	1.16777

Supplier Focus				
SF1	1.00	7.00	4.4106	1.51755
SF2	1.00	7.00	4.6017	1.42309
SF3	1.00	7.00	4.6200	1.49894
SF4	1.00	7.00	4.8500	1.44149
SF5	1.00	7.00	4.8172	1.41577
SF6	1.00	7.00	4.5627	1.45256
SF7	1.00	7.00	4.5150	1.40701
SF8	1.00	7.00	4.4400	1.47896
SF9	1.00	7.00	4.6000	1.53026
Total			4.6019	1.05580

Source: Author's Construct (2023)

The descriptive statistics of the supply chain quality management practices measurement variables utilized in the study are presented in Table 4.3. The SCQMP has five measuring variables, as can be seen in the table. The average mean score for the first variable, "Quality Leadership," is 4.654, with a standard deviation of 1.150. On a 7-point Likert scale, this indicates that the businesses visited have a moderate level of quality leadership practice. Given a 7-point Likert scale with a mid-point of 4.00-4.99.

Second, in terms of human resource management, a mean of 4.606 was found, with a standard deviation of 1.212. Given a mid-point of 4.00-4.99 on a 7-point Likert scale, this means that the average respondent believes their company performs human resource management as a form of SCQMP.

Furthermore, with an average mean score of 4.510 and a standard deviation of 1.097, supply chain integration is determined to be moderately applied in the pharmaceutical industry. Given a mid-point of 4.00-4.99 on a 7-point Likert scale, this means that the average respondent agrees to some extent that supply chain integration is moderately practiced.

In terms of customer focus, the average score is 4.783, with a standard deviation of 1.167. This denotes a moderate level of consumer focus in the pharmaceutical business in

individual companies. This also means that the average respondent agrees that their company pays attention to their customers to some level.

Finally, supplier focus obtained an average mean score of 4.601 and a standard deviation of 1.055. Given a point of 4.00-4.99 on a 7-point Likert scale, this indicates a moderate level of supplier focus practice in respective organizations.

Table 4.4 Firm Reputation (Descriptive statistics)

Items	Minimum	Maximum	Mean	Std. Deviation
FR1	1.00	7.00	4.0900	1.78545
FR2	1.00	7.00	4.2266	1.67800
FR3	1.00	7.00	4.2700	1.59682
FR4	1.00	7.00	4.1200	1.62444
FR5	1.00	7.00	4.3639	1.57009
Total			4.2141	1.36088

Source: Author's Construct (2023)

Table 4.4 presents descriptive statistics of firm reputation measurement items used in the study. From the table, can be observed that firm reputation has five measurement items. Firm reputation obtained an average mean score of 4.214 with a standard deviation of 1.360. On a 7-point Likert scale this implies a moderate reputation of the businesses visited. Thus, given a mid-point of 4.00-4.99 on a 7-point Likert scale.

Table 4.5 Performance (Descriptive statistics)

Customer Performance				
Items	Minimum	Maximum	Mean	Std. Deviation
CP1	1.00	7.00	5.0800	1.33887
CP2	1.00	7.00	4.9266	1.33323
CP3	1.00	7.00	4.8903	1.44535
Total			4.9656	1.18076
Financial Performance				
FP1	1.00	7.00	5.1238	1.35806
FP2	1.00	7.00	4.9666	1.42401
FP3	1.00	7.00	4.9450	1.46036
Total			5.0118	1.22515
Operational Performance				
OP1	1.00	7.00	4.6366	1.42732
OP2	1.00	7.00	4.8295	1.49110
OP3	1.00	7.00	4.8194	1.40303
OP4	1.00	7.00	4.8594	1.38604
OP5	1.00	7.00	4.9400	1.46823
Total			4.8064	1.25799

Source: Author's Construct (2023)

Table 4.5 presents descriptive statistics of firm performance measurement items used in the study. From the table, can be observed that firm performance has three measurement variables. Customer performance obtained an average mean score of 4.965 with a standard deviation of 1.180. On a 7-point Likert scale this implies a moderate customer performance of the pharmaceutical businesses visited. Thus, given a mid-point of 4.00-4.99 on a 7-point Likert scale.

Secondly, with regards to financial performance, a mean value of 5.011 and a standard deviation of 1.225 was obtained. This implies that, an average respondent believes their companies has a satisfactory financial performance, given a 7-point Likert scale.

Lastly, operational performance is found to be moderate in the pharmaceutical industry, given an average mean score of 4.806 with a standard deviation of 1.257. This implies that,

an average respondent to some extent agrees that operational performance is satisfactory, given a mid-point of 4.00-4.99 on a 7-point Likert scale.

4.5 Correlation Analysis

Pearson correlation analysis is used in this part to determine the level of association between the study variables. Values are assessed from -1 to +1 in a Pearson correlation study, with -1 indicating a negative correlation and +1 indicating a positive correlation. A number greater than .80 will cause problems in the regression model due to multicollinearity. In a Pearson correlation test, values are side by side to determine whether there is a negative correlation, no correlation (0), or a positive correlation. The study variables' results are provided below.

Table 4.6 Correlation Analysis

Variables	1	2	3	4	5	6
1. Quality leadership	1					
2. Human resource mgt.	.088	1				
3. Supply Chain Integration	-.033	.134	1			
4. Customer Focus	.050	.157*	.459*	1		
5. Supplier focus	-.035	.159	.740*	.486	1	
6. Firm performance	.188**	.254**	.327**	.205**	.308**	1
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).						

Source: Author's Construct (2023)

Table 4.6 presents the results obtained for study. It can be observed that, all the main study variables both correlate positively and negatively with each other. All the variables however, correlate with firm performance other at the 0.01 level (2-tailed), signifying a

strong relationship with SCQMP variables. Again, there was no issue of multicollinearity detected since all the values obtained were below .80

4.6 Regression Analysis

Regression analysis is the emphasis of this aspect of the research. Regression analysis is used in this study to assess the influence/effect of one variable on another (i.e. effects of independent variables on dependent variable). This will allow the researcher to meet the study's objectives. The study's assumptions were tested using regression analysis, which was carried out using SPSS version 26. There were four models that were estimated. The results of the regression analysis are separated into three categories: ANOVA, Model summary, and coefficients. The results are presented in Tables 4.5, 4.6, and 4.7.

Table 4.7 Regression Analysis

Dependent variable: Firm Performance									
Regression		Coefficients			Model Summary			ANOVA	
Mod	Variable	B	Std. er	T	R	R ²	Adj R ²	F	Sig.
1.	Quality leadership	.353	.131	2.699	.188	.035	.031	7.283	.008
Dependent variable: Firm Performance									
2.	Human resource mgt.	.174	.047	3.703	.254	.065	.060	13.711	.000
Dependent variable: Firm Performance									
3.	Supply Chain Integration	.247	.051	4.867	.327	.107	.102	23.683	.000
Dependent variable: Firm Performance									
4.	Customer Focus	.146	.049	2.948	.205	.042	.037	8.692	.004
Dependent variable: Firm Performance									
5.	Supplier focus	.242	.053	4.551	.308	.095	.090	20.708	.000
Dependent variable: Firm Performance									
6.	SCQMP*FR	.056	.011	5.047	.338	.114	.110	25.476	.000

SCQMP: Supply chain quality management practices, FR: Firm reputation

Source: Author's Construct (2023)

With an impact size of $\beta = 0.353$ and a significant degree of $t = 2.699$, $\text{sig} = .008$, Table 4.7 Model 1 demonstrates a positive and significant effect of quality leadership on firm performance. As a result, a unit increase in quality leadership will result in a 3.5 percent increase in firm performance. This finding lends credence to the study's first hypothesis.

With an impact size of $\beta = 0.174$ and a significant degree of $t = 3.703$, $\text{sig} = .000$, Model 2 demonstrates a positive and significant influence of human resource management on firm performance. As a result, a unit increase in human resource management will result in a 6.5 percent rise in firm performance. This finding lends credence to the study's second hypothesis.

Model 3 reveals a positive and significant effect of supply chain integration on firm performance, this is so given an effect size $\beta = 0.247$ and a significant degree $t = 4.867$, $\text{sig} = .000$. Thus, a unit increase in supply chain integration will result in the increase in firm performance by 10.7%. This result provides evidence to support hypothesis 3 of the study.

Model 4 reveals a positive and significant effect of customer focus on firm performance, this is so given an effect size $\beta = 0.146$ and a significant degree $t = 2.948$, $\text{sig} = .000$. Thus, a unit increase in customer focus will result in the increase in firm performance by 4.2%. This result provides evidence to support hypothesis 4 of the study.

Model 5 reveals a positive and significant effect of supplier focus on firm performance, this is so given an effect size $\beta = 0.242$ and a significant degree $t = 4.551$, $\text{sig} = .000$. Thus, a unit increase in supplier focus will result in the increase in firm performance by 9.5%. This result provides evidence to support hypothesis 5 of the study.

Model 6 reveals a positive and significant moderating effect of firm reputation on SCQMO-firm performance, this is so given an effect size $\beta = 0.056$ and a significant degree $t = 5.047$, $\text{sig} = .000$. This result provides evidence to support hypothesis 6 of the study.

4.7 Discussion of Findings

4.7.1 Quality Leadership on Firm Performance

The study's first objective was to determine the impact of quality leadership on firm performance. Quality leadership, according to this research, has a positive and significant effect on firm performance. The findings of this study show that quality leadership has a positive and significant impact on firm performance. In spite of this, the finding is consistent with previous research and empirical studies. The study is consistent with the works of Birasnav et al. (2015), Chen et al. (2019) and Gosling et al. (2014), their works discovers having invested in quality leadership at the workplace was associated with increase in firm performance. Hence, the study therefore, contributes to the study on supply chain quality management by establishing that quality leadership have positive influence on firm performance of pharmaceutical industry in Ghana.

4.7.2 Human Resource Management on Firm Performance

Secondly, the study sought to examine the impact of human resource management on firm performance. Human resource management, according to this research, has a positive and significant effect on firm performance. The findings of this study show that human resource management has a positive and significant impact on firm performance. In spite of this, the finding is consistent with previous research and empirical studies. The study is consistent with the works of Kaya (2006), Georgiadis & Pitelis (2012), Nudurupati & Bititci (2005) and De Leeuw & van den Berg (2011), they posit that, human resource management have positive association with firm performance. Hence, the study therefore, contributes to the

study on supply chain quality management by establishing that SCQMP have positive influence on firm performance of pharmaceutical industry in Ghana.

4.7.3 Supply Chain Integration on Firm Performance

The study also sought to examine the impact of supply chain integration on firm performance. Supply chain integration, according to this research, has a positive and significant effect on firm performance. The findings of this study show that supply chain integration has a positive and significant impact on firm performance. In spite of this, the finding is consistent with previous research and empirical studies. The study is consistent with the works of Yeung's (2008), Flynn et al. (2010), Huo et al. (2014), Spina et al. (2015), Yoon & Moon (2017) and Tatoglu et al. (2016). Yeung's (2008) study of the organizational effects of strategic supply management on quality and performance discovered that SCI boosted on-time shipments, decreased operational expenses, and improved business performance. Additionally, Flynn et al. (2010) revealed that supply chain integration was connected with operational and business success, building on insights from contingency and configuration theories. Additionally, in their investigation of the causes and consequences of supply chain quality integration, Huo et al. (2014) discovered how different types of SCQM practices were correlated with quality-related performance. Internal quality integration was identified as a critical strategic resource for quality improvement in particular. Hence, the study therefore, contributes to the study on supply chain quality management by establishing that supply chain integration has positive influence on firm performance of pharmaceutical industry in Ghana.

4.7.4 Customer Focus on Firm Performance

Also, the study sought to examine the impact of customer focus on firm performance. Customer focus, according to this research, has a positive and significant effect on firm performance. The findings of this study show that customer focus has a positive and

significant impact on firm performance. In spite of this, the finding is consistent with previous research and empirical studies. The study is consistent with the works of Abdallah et al. (2014), Aslam et al. (2012), Lakhali et al. (2006) and Zehir & Sadikoglu (2010), they posit that, customer focus has positive association with firm performance. Hence, the study therefore, contributes to the study on supply chain quality management by establishing that customer focus has positive influence on firm performance of pharmaceutical industry in Ghana.

4.7.5 Supplier Focus on Firm Performance

Furthermore, the study sought to examine the impact of supplier focus on firm performance. Supplier focus, according to this research, has a positive and significant effect on firm performance. The findings of this study show that supplier focus has a positive and significant impact on firm performance. In spite of this, the finding is consistent with previous research and empirical studies. The study is consistent with the works of Truong et al. (2017), Thornton et al. (2016), Yoon & Moon (2017) and Goffnett & Goswami (2016), they posit that, supplier focus has positive association with firm performance. Hence, the study therefore, contributes to the study on supply chain quality management by establishing that supplier focus has positive influence on firm performance of pharmaceutical industry in Ghana.

4.7.6 Moderating Effect of Firm Reputation

Lastly, the study sought to examine the moderating effect of firm reputation on SCQMO-firm performance relationship. Hence, the study hypothesizes that, firm reputation has a positive moderating effect in the relationship between SCQMP and firm performance. Therefore, the study establishes a positive and significant moderating effect of firm reputation on SCQMO-firm performance relationship. Aghdasi et al. (2011), Karatepe (2011), Samnani & Singh (2014), Ali et al. (2015) and Gatzert (2015) posit that a firm

having invested in SCQM practices will have a balanced reputation in their industry. Blajer-Gobiewska (2014) also provides evidence to support the influence of firm reputation on company performance. Hence, the study therefore, contributes to the study on supply chain quality management and firm reputation literature by establishing that firm reputation moderates the relationship between SCQM practices and firm performance of pharmaceutical industry in Ghana.



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This section of the thesis outlines the summary of findings from the fourth chapter, detailing the most significant aspects of the analysis and discussion of the study. The study draws on the crux of the analysis to produce a valid conclusion to the research and propose important recommendations with managerial implications.

5.2 Summary of Findings

The summary of the research findings under each objective are presented in the foregoing sub-sections.

5.2.1 Quality Leadership and Firm Performance

The study hypothesized that QL bore a positive and significant relationship with firm performance. From the analysis, it was revealed that, indeed, QL positively and significantly impacts firm performance. These results indicate that the presence QL closely correlates with an increase in firm performance as authors such as Terziovski (1999) and Powell (1995) propose in their studies.

5.2.2 Human Resource Management on Firm Performance

The study hypothesized that HRM bore a positive and significant relationship with firm performance. Consequently, hypothesis 2 was produced - human resource management has a positive and significant effect on firm performance. From the analysis, it was revealed that HRM positively and significantly impacts firm performance. As a result, the study demonstrates that HRM favorably and considerably affects firm performance. Authors such

as Kaya (2006), King-Kauanui et al. (2006), and Georgiadis and Pitelis (2012) have published literature and empirical investigations that support this conclusion.

5.2.3 Supply Chain Integration on Firm Performance

Further, the study hypothesized that SCI bore a positive and significant relationship with firm performance as indicated in hypothesis 3: supply chain integration has a positive and significant effect on firm performance. From the analysis, it was revealed that, indeed, SCI positively and significantly impacts firm performance. These results indicate that the presence of SCI closely correlates with an increase in firm performance as authors such as Ulwick and Teitelbaum (2005) and Huo et al. (2014) propose in their studies.

5.2.4 Customer Focus on Firm Performance

The study hypothesized that CF bore a positive and significant relationship with firm performance. Consequently, hypothesis 4 was produced - customer focus has a positive and significant effect on firm performance. From the analysis, it was revealed that CF positively and significantly impacts firm performance. As a result, the study demonstrates that CF favorably and considerably affects firm performance. Authors such as Abdallah et al. (2014), Rahman and Bullock (2005) and Aslam et al. (2012) have published literature and empirical investigations that support this conclusion.

5.2.5 Supplier Focus on Firm Performance

Another objective of the study was to look into the impact of SF on firm performance, hence hypothesis 5 was proposed: supplier focus has a positive and significant effect on firm performance. As a result, the study demonstrates that SF has a favorable and considerable impact on firm performance. Authors such as Spina et al. (2015), Tatoglu et al. (2016), and Truong et al. (2017) have published literature and empirical investigations that support this conclusion.

5.2.6 Moderating Effect of Firm Reputation on Supply Chain Quality Management and Firm Performance

The study's 6th objective was to investigate the moderating role of firm reputation in the relationship between SCQM and firm performance. As a result, hypothesis 6 is proposed: firm reputation positively and significantly moderates the relationship between SCQM and firm performance. The study identifies and validates a positive and significant moderating effect of firm reputation on the relationship between SCQM and firm performance. This means that effectively exploiting businesses' firm reputation is useful to developing their SCQM, which in turn raises firms' performance.

5.3 Conclusion

Despite several empirical research on the impact of SCQM on firm performance, different business industries have produced diverse yet inconclusive results. The research, which includes an empirical component, aims to address this vacuum by looking at how manufacturing firms in Ghana might benefit from their use of SCQM in conjunction with other company resources like the firm's reputation. Data from the aforementioned companies was used to evaluate research hypotheses and achieve the study's goals and objectives. The survey's findings show that while SCQM correlates with firm performance, the association is informed by the presence of firm reputation; thus, higher a firm's reputation, the more the SCQM affect firm performance. As a result, the research uncovers and shows that firm reputation plays a positive and important moderating role in the link between SCQM and firm performance.

5.4 Recommendations

5.4.1 Implications for Theory

This research adds to the growing body of knowledge on SCQM and firm performance. The study also contributes empirically to the resource dependency theory and the resource-based view theory, both of which argue that an organization's distinctive capacity and competence are directly linked to performance (Teece, 1994; Barney, 1991). The study aimed to introduce firm reputation as a moderator in the link between SCQM and firm performance, and it was discovered that firm reputation moderates the relationship between SCQM and firm performance. Furthermore, this research adds to the body of knowledge by proposing firm reputation as an intangible resource through which SCQM influences firm performance.

5.4.2 Implications for Managers

The findings of this study have important implications for managers looking to strengthen their firm performance. First, the findings show that SCQM by itself may not necessarily lead to an increase in firm performance, but it can when firm reputation is capitalized on. In summary, the research demonstrates and confirms that managers that would capitalize on high firm reputation or invest in developing their firm reputation could see an increase in firm performance through their SCQM activities.

5.5 Suggestions for Further Research

One of the study's drawbacks is the modest number of moderators used; future studies should consider the use of more moderators like creativity, dynamic capabilities, core competencies and logistics integration, amongst others. The study also relied extensively on quantitative approaches and structured questionnaires. To obtain a more in-depth perspective from respondents and perform more elaborative analyses, future studies should use a mixed method approach and interview schedules. The scope of the study was also

limited to manufacturing firms in Ghana. Despite the fact that African SMEs are assumed to be homogeneous, generalizing the conclusions of this study requires care and robustness. As a result of the findings, future study should include SMEs from other developing countries.

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APPENDIX



**KWAME NKURUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF BUSINESS
DEPARTMENT OF SUPPLY CHAIN AND INFORMATION SYSTEM**

SURVEY QUESTIONNAIRE

Hello, I am a graduate student at KNUST pursuing a MSc. in Logistics and Supply Chain Management. I am conducting a research on **examining the moderating role of firm reputation on the relationships between supply chain quality management practices and organizational performance of manufacturing firms in Ghana**. This questionnaire is for academic purpose only and any information gathered will remain confidential. Where alternatives have been provided in this questionnaire, please tick the appropriate response. For any other question write your answer in the space provided. Please give responses with respect to what currently happens in your organisation, and not how you expect them to be or how they should be. Kindly note that for this study there are no right or wrong answers. Because the question is predominantly about supply chain management, the questionnaire will be best answered by the supply chain manager/supervisor, or any other senior manager with adequate knowledge in the organisation's supply chain relationships and actions. Collaboration between managers on answering the question is encouraged. Your participation and cooperation in this study is highly appreciated and valued.

SECTION A: RESPONDENT'S INFORMATION AND COMPANY BACKGROUND

Kindly select the option that best represent you.

1. Please indicate your Gender:

Male Female

2. What is the highest level of education you have attained?

SSSCE/WASSCE Diploma (HND) First Degree Masters
 PhD

3. How many years have you worked in this organization?

Below 10 years 10-15 years 15-20 years Above

20 years

4. Please indicate the level of management you are in this organization (Please do not continue to the main questionnaire if your level is below the specified levels in the options)

Top (e.g. CEO, Managing Director) Middle (Manager, e.g. Head of
 Department) Lower (e.g. Supervisor)

5. If middle or lower level manager, please indicate your department:

- Accounts/Finance Human Resource Marketing IT
Operations Procurement/Supply Chain/Logistics
 Other (please specify)

6. How long has your firm been in operation?

- Below 10 years 10-20 years 20-30 years Above 30 years

7. How many full-time employees do your firm have?

- Below 50 50-100 100-500 Above 500

SECTION B: SUPPLY CHAIN QUALITY MANAGEMENT PRACTICES

This section seeks to examine the supply chain quality management practices of your organization. Please use the 7-point scale provided below to rate your organization on the items presented in the table. Once again, you are kindly reminded to rate according to what currently pertains in the organization, and not what you expect or hope to happen.

Key: (1= Strongly Disagree, 2= Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Agree, 7= Strongly Agree)

Please circle the number that represent your opinion.

STATEMENT		RESPONSE						
Quality Leadership								
QL1	Top management strongly encourages employee involvement in quality management and improvement activities.	1	2	3	4	5	6	7
QL2	Top management learns quality-related concepts and skills.	1	2	3	4	5	6	7
QL3	Top management actively participates in quality management and improvement process.	1	2	3	4	5	6	7
QL4	Top management empowers employees to solve quality problems.	1	2	3	4	5	6	7
QL5	Top management empowers suppliers to solve quality problems.	1	2	3	4	5	6	7
QL6	Top management strongly encourages supplier involvement in quality management and improvement activities.	1	2	3	4	5	6	7
Human Resource Management								
HRM1	We provide training and training resources to employees (workers) and encourage them to attend these training programs	1	2	3	4	5	6	7
HRM2	We have many active improvement teams.	1	2	3	4	5	6	7

HRM3	We actively evaluate and implement employees' suggestions related to quality and supply chain management, if they are suitable.	1	2	3	4	5	6	7
HRM4	Our line employees (workers) are responsible for and inspect the quality of their own work (self-inspection).	1	2	3	4	5	6	7
HRM5	We have an assistance mechanism (problem solving network) to help line employees solve quality problems.	1	2	3	4	5	6	7
HRM6	Our employees are actively involved in quality management-related activities.	1	2	3	4	5	6	7
HRM7	We provide awards to individuals and groups for excellent suggestions.	1	2	3	4	5	6	7
	Supply Chain Integration							
SCI1	Our company creates supply chain teams that include members from different companies.	1	2	3	4	5	6	7
SCI2	Our company extends the supply chain to include members beyond immediate suppliers.	1	2	3	4	5	6	7
7SCI3	Our company extends the supply chain to include members beyond our direct customers.	1	2	3	4	5	6	7
SCI4	Our company improves the integration of activities across the supply chain.	1	2	3	4	5	6	7
SCI5	Our company creates a greater level of trust among supply chain members.	1	2	3	4	5	6	7
SCI6	Our company involves all members of the supply chain in product/service/marketing plans.	1	2	3	4	5	6	7
SCI7	Our company participates in sourcing decisions of suppliers.	1	2	3	4	5	6	7
SCI8	Our company seeks new ways to integrate supply chain activities.	1	2	3	4	5	6	7
SCI9	Our company aids suppliers in increasing their capabilities.	1	2	3	4	5	6	7
SCI10	There is a compatible communication/information system with suppliers.	1	2	3	4	5	6	7
	Customer Focus							
CF1	We frequently determine key factors for building and maintaining customer relationships.	1	2	3	4	5	6	7
CF2	We create room for enhancing customers' ability to seek assistance from us	1	2	3	4	5	6	7
CF3	We frequently determine future customer expectations.	1	2	3	4	5	6	7
CF4	We frequently evaluate formal and informal complaints from our customers	1	2	3	4	5	6	7
CF5	We follow-up with customers for quality/service feedback.	1	2	3	4	5	6	7

CF6	We frequently measure and evaluate customer satisfaction factors.	1	2	3	4	5	6	7
CF7	We frequently interact with customers to set reliability, responsiveness, and other standards.	1	2	3	4	5	6	7
CF8	We communicate with customers' future strategic needs throughout the supply chain.	1	2	3	4	5	6	7
CF9	We make use of informal information sharing with customers.	1	2	3	4	5	6	7
Supplier Focus								
SF1	Our company regularly conducts supplier quality audit.	1	2	3	4	5	6	7
SF2	Our company has detailed information about supplier performance.	1	2	3	4	5	6	7
SF3	Our company always gives feedback on the performance of suppliers' products.	1	2	3	4	5	6	7
SF4	Our company always participates in supplier activities related to quality.	1	2	3	4	5	6	7
SF5	Our company has a formal programme for evaluating and recognizing suppliers.	1	2	3	4	5	6	7
SF6	Our company has very frequent face-to-face planning/communication with key suppliers.	1	2	3	4	5	6	7
SF7	Our company can influence 1st tier/Main supplier's responsiveness to our requirements.	1	2	3	4	5	6	7
SF8	Our company enters into special agreements with suppliers who have improved performance.	1	2	3	4	5	6	7
SF9	Our company regards product quality as the most important factor for selecting suppliers.	1	2	3	4	5	6	7

SECTION C: FIRM REPUTATION

Consider your organization's reputation and image, and respond to the statement given in the table.

Key: (1= Strongly Disagree, 2= Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Agree, 7= Strongly Agree)

	STATEMENT	RESPONSE						
FR1	I have always had a good impression of the company.	1	2	3	4	5	6	7
FR2	In my opinion, this company has a good image in the minds of consumers.	1	2	3	4	5	6	7
FR3	I believe that this company has a better image than that of its competitors.	1	2	3	4	5	6	7
FR4	Our company is a strong, reliable company	1	2	3	4	5	6	7
FR5	Our company is known for developing innovative products	1	2	3	4	5	6	7

SECTION D: FIRM PERFORMANCE

In this section, please rate your organization's performance in the last financial year, in comparison to the previous year's performance.

Key: (1= Significant High Decrease; 2= Significant Decrease; 3= Decrease; 4 = Same as Before; 5= Increase; 6= Significant Increase; 7= Significant High Increase)

	STATEMENT	RESPONSE						
	Customer Performance							
CP1	The level of customer complaints in the last three years.	1	2	3	4	5	6	7
CP2	The company's ability to retain old customers over the past three years.	1	2	3	4	5	6	7
CP3	The company's ability to attract (gain) new customers over the past three years.	1	2	3	4	5	6	7
	Financial Performance							
FP1	Return on investment	1	2	3	4	5	6	7
FP2	Growth in return on investment	1	2	3	4	5	6	7
FP3	Profit margin on sales	1	2	3	4	5	6	7
	Operational Performance							
OP1	Lead time in production	1	2	3	4	5	6	7
OP2	Forecasting	1	2	3	4	5	6	7
OP3	Resource planning	1	2	3	4	5	6	7
OP4	Inventory level	1	2	3	4	5	6	7
OP5	Cost saving	1	2	3	4	5	6	7

THANK YOU FOR YOUR TIME AND PARTICIPATION!!!

