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The Impact of Supply Chain Management and Logistics on the Competitive Advantage and Organizational Performance: A Field Study in Tourism Organizations in Syria

PHD DISSERTATION

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Abstract

This study was conducted with an objective of identifying the impact of supply chain management and logistics on competitive advantage and organizational performance in the case of four- and five-stars hotels in Damascus. Supply chain management and logistics have become a valuable way of securing competitive advantage and organizational performance since competition is no longer between organizations, but among supply chains. This research discusses the concepts of supply chain management and logistics, the dimensions of the competitive advantage and organizational performance, and tests the relationships between supply chain management, logistics, competitive advantage, and organizational performance. The descriptive and explanatory research design were used. The data for the study was collected from 116 employees of four- and five-stars hotels in Damascus based on their experience which offered a detailed and exact information. The relationships proposed in the framework were tested by Pearson correlation and the causal relations were analyzed by regression analysis method by using SPSS Software. From the result of the analysis, it is concluded that there is a strong relationship between supply chain management, logistics, competitive advantage, and organizational performance. Supply chain management and logistics have shown a positive and significant effect on the competitive advantage and organizational performance. Therefore, in order to achieve competitive advantages and organizational performance, it is frugal for the organization to give due emphasis to the constructs of supply chain management and logistics.

Keywords: Supply Chain Management (SCM), Logistics, Competitive Advantage, Organizational Performance.

1. INTRODUCTION

In this first chapter, a background for this thesis is presented. Continuing, the main research question is formulated following the eight hypotheses that give the thesis further direction towards this study's interest. The purpose for this study, as well as the delimitations of the research area, are presented. After a brief introduction, an illustration of the thesis structure will complete this introduction chapter.

1.1 Research Background

The world is witnessing many challenges, represented by intensive competition, lack of available resources, increasing societal needs. Which requires dynamic changes in all aspects of the organization to ensure survival and continuity in the light of these rapid changes. Therefore, the organization must continuously explore and identify the potential markets for its products, obtaining a distinct competitive position, expanding its market share, and accessing geographical places far from the organization's location whether within the borders of the country or outside.

Hence comes the importance of supply chain management and logistics, which has become a bond, linking the production sites with market and consumption sites, which is why the management of supply chains and logistics is considered as one of the vital factors that affect competitive advantage and organizational performance of the organization.

Based on the above, the need for supply chain management and logistics emerged, due to its ability to enable the organization to achieve competitive advantages and organizational performance, through its role in the relationships between the organization, suppliers, and customers. The supply chain management and logistics represents a mixture of science and art to improve the ways how the organization obtains the raw materials needed to provide the service, produce the products, and deliver or ship it to customers, which achieves the continuity and distinction for the organization in the market.

The present study seeks to test the impact of supply chain management and logistics on the competitive advantage and organizational performance in tourism organizations. The researcher will review the previous studies to identify the problem of research, its importance, and its objectives. The research methodology will be presented, the main variables will be defined, and their hypotheses will be developed.

1.2 Research Problem & Question

The problem of the study goes back to the fact that hotels in Syria are affected by many challenges, and the great damage in the tourism sector which has been affected by political and economic factors in Syria and the region, which contradicts the hotel's pursuit of achieving competitive advantages and organizational performance.

As most organizations operate in a work environment characterized by intensive competition, change in the needs and desires of customers and changing market conditions, Therefore the organization is required to build strong relationships with suppliers and customers through efficient and effective management of the supply chain, and work to secure the best types of logistics support to achieve the set goals. Which leads to achieve high levels of performance and thus achieving competitive advantages and distinction from other competitors so that the organization can survive and continue.

In the light of the above, the problem of research can be identified by the following main question:

To what extent do supply chain management and logistics affect the competitive advantage and organizational performance in tourism organizations?

1.3 Research Importance

The importance of the study stems from the importance of supply chain management and logistics, through the major role they play in the relationships between the organization, suppliers, and customers and the means how the organization obtains the raw materials needed to provide the service, produce the products, and deliver or ship it to customers, which achieves continuity and distinction for the organization in the market.

It also stems from the importance of competitive advantage and organizational performance, as it is the only way to achieve survival, profitability, and sustainability for the organization in the market.

The importance of the present study is summarized as follows:

1) Identifying supply chain management and logistics, which is one of the most important resources that contribute to achieve competitive advantage and organizational performance.

2) Identifying the importance and impact of supply chain management and logistics in organizations and the role they play to achieve competitive advantage and organizational performance.

3) The importance of this study lies in the possibility of applying the results and proposals to the relevant organizations, which contributes to enhancing the positive impact of supply chain management and logistics on competitive advantage and organizational performance.

1.4 Research Objectives

This research aims to shed the light on the impact of supply chain management and logistics on the competitive advantage and organizational performance in tourism organizations. Therefore, the objectives of the research are as per the following points:

1) To introduce the concepts of supply chain management and logistics and its importance.

2) Clarify the concepts, dimensions, and sources of competitive advantage and organizational performance.

3) Test the impact of supply chain management on the competitive advantage and organizational performance.

4) Test the impact of logistics on the competitive advantage and organizational performance.

1.5 Definitions of Terms

- Supply Chain: The supply chain is expressed as a chain of activities that cover enterprise functions from the ordering and receipt of raw materials, raw material handling, manufacturing of products, to the distribution and delivery of final product to the customer (Li et al., 2006, p.93).

- Supply Chain Management (SCM): SCM encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities, including coordination and collaboration with suppliers, intermediaries, third-party service providers, and customers. Thus, the supply chain encompasses all activities involved in the production and delivery of a final product or service, from the supplier's supplier to the customer's customer at the right cost, at the right quantities, at the right time, to the right places and customers (Fugate et al., 2010, p.52).

- Logistics: Logistics is that part of Supply Chain Management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customer's

requirements, it includes four major components: Procurement, Warehousing, Inventory and Transportation (Fugate et al., 2010, p.54).

- **Competitive Advantage**: is the ability of the organization to create a defensible position over its competitors, it comprises capabilities that allow an organization to differentiate itself from its competitors, and it has five dimensions: cost, quality, delivery, flexibility, and innovation (Li et al., 2006, p.111).

- **Organizational Performance**: Organizational performance refers to how well an organization achieves its market- oriented goals as well as its financial goals (Yamin & Mavondo, 2009, p.56).

- **Services:** Services are intangible solutions that are also an exchange between buyer and seller, unlike products, services cannot be touched, owned, or stored for later use, another defining feature of a service is the client is typically a part of the service experience (Albrecht et al., 2023, p.308). For example, the hospitality service, a client spending the night in a hotel and using the hotel facilities is a service, clients cannot own the room or the facilities, they cannot store it for later, nor will they have a tangible object representing the service, imagine booking a room in a hotel, you will have to attend at the hotel to realize the full benefit of the service experience.

1.6 Research Community, Sample & Limits

The research community consists of tourism organizations in the hospitality industry, Hotels as a case study (Four & Five stars).

The research sample consists of the employees in the departments of supply chain management (Staff & Management) at these hotels.

Those employees were chosen as a sample for this study because they are an excellent basis for the questionnaire for several reasons. They have firsthand, day-to-day experience with the supply chain processes, from procurement to distribution. Their insights can offer detailed and exact information about the challenges, successes, and potential areas for improvement within the supply chain, they also possess operational knowledge about how the supply chain functions within the specific context of hospitality.

As individuals directly involved in the supply chain operations, their input can reflect practical realities and ground-level issues. The employees' perspectives are vital. Their feedback on the feasibility and potential obstacles to supply chain management and logistics can ensure the practicality and effectiveness of it.

Involving employees in the questionnaire ensures a comprehensive understanding of the intricacies and practicalities of supply chain management and logistics within the specific context of the hospitality industry in Syria. Their insights can enrich the study and provide a solid foundation for recommendations and improvements.

The research time limit was from February 2023 until June 2023.

The research geographical limit is the hotels in Damascus city in Syria, as per the following:

Table 1: Research Community

Hotel	Classification
Four Seasons Hotel	5 Stars
Sheraton Hotel	5 Stars
Dama Rose Hotel	5 Stars
Cham Palace Hotel	5 Stars
Armetage Hotel	4 Stars
Omaya Hotel	4 Stars
Blue Tower Hotel	4 Stars
Fardous Tower Hotel	4 Stars

Prepared by the researcher

1.7 Research Hypotheses & Variables

In the light of the research problem and question, the hypotheses are formulated as follows:

- First Hypothesis H1:

"There is a statistically significant impact of supply chain management on the competitive advantage in five stars hotels at the level of significance ($\alpha \leq 0.05$)".

- Second Hypothesis H2:

"There is a statistically significant impact of supply chain management on the competitive advantage in four stars hotels at the level of significance ($\alpha \leq 0.05$)".

- Third Hypothesis H3:

"There is a statistically significant impact of logistics on the competitive advantage in five stars hotels at the level of significance ($\alpha \leq 0.05$)".

- Fourth Hypothesis H4:

"There is a statistically significant impact of logistics on the competitive advantage in four stars hotels at the level of significance ($\alpha \leq 0.05$)".

- Fifth Hypothesis H5:

"There is a statistically significant impact of supply chain management on organizational performance in five stars hotels at the level of significance ($\alpha \leq 0.05$)".

- Sixth Hypothesis H6:

"There is a statistically significant impact of supply chain management on organizational performance in four stars hotels at the level of significance ($\alpha \leq 0.05$)".

- Seventh Hypothesis H7:

"There is a statistically significant impact of logistics on organizational performance in five stars hotels at the level of significance ($\alpha \leq 0.05$)".

- Eighth Hypothesis H8:

"There is a statistically significant impact of logistics on organizational performance in four stars hotels at the level of significance ($\alpha \leq 0.05$)".

1.8 Research Variables & Model

The present study relied on supply chain management as a first independent variable (X1), and on logistics as a second independent variable (X2), and the first dependent variable (Y1) is the competitive advantage, and the second dependent variable (Y2) is the organizational performance. In the light of the above, the model of the study of the relationship between variables in this research will be as follows:
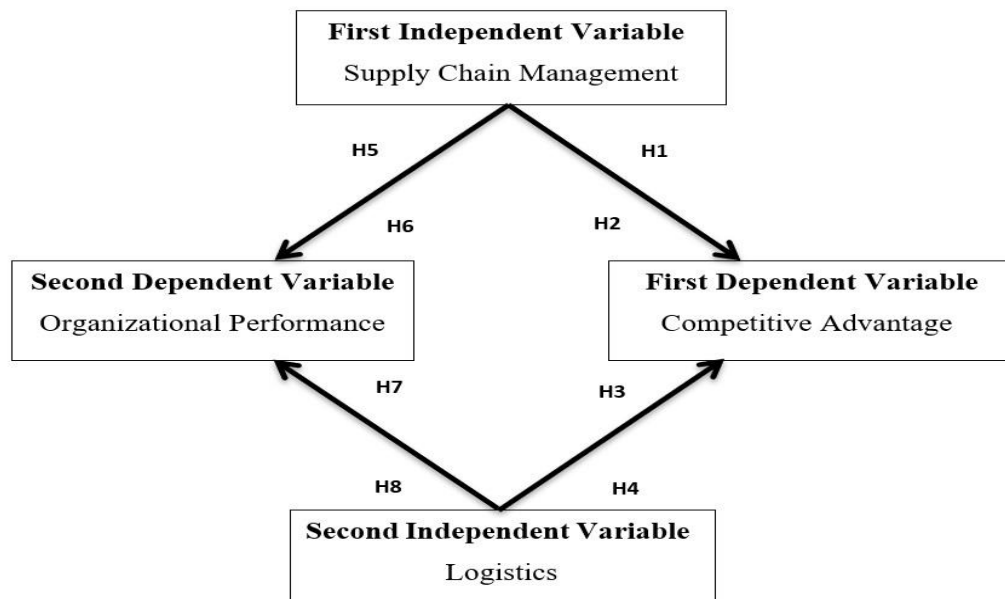
Figure 1: Research Model
Prepared by the researcher

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1.9 Research Methodology

The researcher will use the analytical descriptive method to describe the problem of the study. Using the deductive method with a questionnaire designed for this purpose with 5th Likert scale including statements for each variable, then analyzing it by using the statistical program (**SPSS**) and suitable statistical tests to reach the results and then developing the suggestions, some of these tests are: (Cronbach's Alpha, Kolmogorov-Smirnov Test, Levene's Test, Multicollinearity Test, Pearson Correlation, Independent Sample T-test, One-Way Anova, Simple Regression Analysis).

1.10 Previous Related Studies

1.10.1 The following are some studies done by other researchers related to this study.

A- (Mirabi, M, 2019) Study:

Title: (The Impact of supply chain management on customer satisfaction and competitive advantage in two factories of Fars Industrial Town)

This study aims to test the impact of supply chain management on customer satisfaction and competitive advantage in two factories in Fars Industrial City, and according to the research topic, the following variables were identified: Supply chain management, competitive advantage, and customer satisfaction.

The descriptive analytical approach was adopted, and the questionnaire was distributed to 110 respondents. The research community included two factories in Fars Industrial City. The results confirmed the hypotheses, as the study proved the existence of a statistically significant impact of supply chain management on both customer satisfaction and competitive advantage, which includes cost, quality, flexibility, and delivery advantage.

B- (Kumar, V, 2017) Study:

Title: (The Impact of Supply Chain Integration on Organizational Performance in food industry in UK)

This study aimed to show the impact of the supply chain integration on organizational performance in the food industry in the United Kingdom. The study found that integration with suppliers, internal integration, integration with customers, and information integration are positively related to supply chain performance and affects organizational performance, such as production flexibility, inventory turnover, demand saturation rate and total costs for logistics, and showed that

information integration is the center of chain operations and the driving force for good performance.

C- (Suhong, L, 2016) Study:

Title: (The Impact of Logistics Management on Organizational Performance in Small and Medium Enterprises in USA)

This study aimed to identify the effects of logistics management on organizational performance in small and medium enterprises in the United States of America. The study was implemented in the state of Ohio and come up with three dimensions of logistics management: the relationship with suppliers, the degree of information sharing, and the relationship with customers. It concluded that there is a positive impact of logistics management on the performance of the organization.

There are variety of previous studies which dealt with several concepts and topics related to supply chain management, logistics, competitive advantage, and organizational performance. Some of them focused on supply chain management practices, some focused-on supply chain management success factors, some on supply chain management strategies, and others focused on logistics activities. Some studies also dealt with competitive advantage and organizational performance, its sources, and its relationship to other elements in organizations. The researcher noticed some aspects that are compatible with his research topic.

This research is similar to previous studies in dealing with the concepts of supply chain management, logistics, competitive advantage, and organizational performance as the influencing factor in the organization, as most of the previous studies considered it a factor affected by multiple elements, and other studies considered it a factor affecting the administrative and organizational elements of the organization, but there is no study to the best of the researcher's knowledge, which is considering the impact of supply chain management and logistics on the competitive advantage and organizational performance in tourism organizations.

This research agreed with some previous studies that supply chain management and logistics have an impact on the performance of organizations, competitive advantages, and their continued prosperity, because it is based on seizing new opportunities and dealing with them with a new vision far from traditional methods.

1.10.2 What distinguishes the current study from previous studies?

As far as the knowledge of the researcher is concerned, there is no empirical study on the impact of supply chain management and logistics on the competitive advantage and organizational performance in tourism organizations in Syria.

What distinguishes this research from other previous studies is that it is dealing with different variables that previous studies had dealt with, in addition, to taking the tourism organizations and sector as a field study which differs from the fields that previous studies had taken.

In the current study, the supply chain management and logistics were taken as independent variables, While the competitive advantage and organizational performance were taken as dependent variable.

In order to test the impact of supply chain management and logistics on the competitive advantage and organizational performance, the researcher will test the impact between the components of this research, and ensure that tourism organizations give supply chain management, logistics, competitive advantage, and organizational performance the required importance.

1.11 Structure of the Research

The rest of the dissertation is organized as the following:

The second chapter is about literature reviews which include theoretical literature, empirical literatures, and conceptual framework.

The third chapter is data and methods, which discusses the research methodology of the study which includes description about research design and data analysis, population and sampling, response rate, data type and collection techniques, method of data analysis, model specification, tests of normality, reliability and validity analysis, internal consistency validity, multicollinearity test, Levene's test, correlation analysis, demographic analysis of respondents, descriptive analysis. The fourth chapter includes the test of hypotheses using simple regression analysis.

The fifth chapter presents conclusion, findings, new scientific results, recommendations, limitation, and further Studies.

2. LITERATURE REVIEW

In this chapter, relevant literature reviews concerning the supply chain management, logistics, competitive advantage, and organizational performance are presented. The most central definitions are presented with a purpose of deepening the reader's understanding of these concepts. The reviews are based on literature studies, as well as the latest research reports and scientific articles. This chapter gives a fundamental presentation of the needed concepts, and the reader is advised to look to the referred literature for further knowledge.

2.1 Introduction

In the new global era, successful firms are those that accurately anticipate market trends and quickly respond to changing customer needs (Stalk et al., 1992, p.54). According to Childhouse and Towill (2003), the end customer in the marketplace determines the success or failure of supply chains. They further state that "getting the right product, at the right price, at the right time to the consumer is not only the linchpin to competitive success but also the key to survival" (Childhouse & Towill, 2003, p. 17).

Chase et al. (2000) contends that in the new global era companies are forced to find flexible ways to meet customer demand. The companies these days focus on optimizing their core activities to maximize the speed of response to customer demand (Chase et al., 2000, p.54).

With increasingly sophisticated customer demand (product variety and customization), and recent events of supply disruptions, supply chains must be responsive to constantly changing market and business environment. It is thus incumbent on managers and researchers to strive for a better understanding of the responsiveness construct (Gosain et al., 2004, p.7).

Today's highly competitive environment in which the manufacturing firms operate is characterized by growing world competition and increasingly demanding customers (Rich & Hines, 1997, p.210).

Jones (2002) state that these dynamics are especially observed in the fashion and clothing retail industry (Jones, 2002, p.97).

Further, as the new competitive environment changes to more global, technologically oriented and customer driven, as product life cycles shrink and new products get introduced rapidly, as customers continually demand higher quality, faster response, and greater reliability of products

and services, the new world market demands a more customer responsive behavior by companies (Dsouza, 2002, p.577).

Womack and Jones (1996) argue that these pressures have fueled a continuous change process within organizations, impacting all the areas of a business, from rapid technological changes to a much-shortened product life cycle. They further state that since the late 1990s change and uncertainty surrounding manufacturing organizations and their supply chains grew. Firms have responded with innovative products and improved manufacturing processes to manufacture products (Womack & Jones, 1996, p.43).

Duclos et al. (2003) argues that supply chains need to be managed in a way that enables quick response, so as to cope with volatile demand. The underlying factor is the need to focus on time, flexibility, and speed of response of the supply chain to succeed in this increasingly global marketplace thereby creating competitive advantage for the firm (Duclos et al., 2003, p.446).

Chase et al (2000) suggest that this new environment calls for organizations to be more responsive to customer needs. Supply chain flexibility refers to the ability of the supply chain to adapt to internal or external influences, whereas supply chain responsiveness is the ability of the supply chain to rapidly address (speed combined with flexibility) changes and requests in the marketplace. Thus, modern supply chains are expected to respond rapidly, effectively, and efficiently to customer demand to create competitive advantage in terms of increased quality, lower costs, reduced time to market, and product innovation (Chase et al., 2000, p.73).

Narasimhan and Das (2000) concur by proposing that in the late 20th century, firms in the pursuit of competitive differentiation consider cost and quality as market entry qualifiers, whereas responsiveness and lean manufacturing are considered as order winners (Narasimhan & Das, 2000, p.11).

Most studies so far have focused on the organizational level manufacturing flexibility or agility. It is widely argued that competition is no longer between individual organizations but between supply chains (Li et al., 2006, p.107).

Lummus and Vokurka (1999) state that successful companies are those that manage across all nodes of the supply chain from their supplier's supplier to their customer's customer (Lummus & Vokurka, 1999, p.17).

Supply chain management literature is highly normative and conceptual with research studies primarily being based on case studies (Holweg, 2005, p.96), with little empirical research in the

field of supply chain responsiveness. With this said the empirical study of supply chain responsiveness is very much called for. Since the significance of supply chain responsiveness in today's business world is presented, it is now of interest to understand what kinds of practices are called for within and between organizations in order to achieve supply chain responsiveness. Numerous studies emphasize the importance of integrating suppliers, manufacturers, and customers (Frohlich & Westbrook, 2001, p.185) (i.e., supply chain management) to attain flexibility and speed. It is expected that the current research, by addressing SCM practices that contribute towards responsiveness, will help researchers better understand the scope and activities associated with SCM that create enhanced levels of supply chain responsiveness in today's competitive marketplace, and which has not been empirically tested in past studies. Further, as uncertainty in markets and technology intensifies, more companies are adopting modular product and process architectures (i.e., modularity-based manufacturing practices) to cope with increasing demand uncertainty (Tu et al., 2004, p.147).

Modularity based manufacturing practices is defined as the application of unit standardization or substitution principles to product design, production process design and organizational design (Tu et al., 2004, p.168).

Many empirical questions regarding the managerial and organization implications of modularity-based manufacturing are left unanswered, thus it is of interest to explore the influence of modularity-based manufacturing practices on a supply chain's ability to be responsive. Again, this has not been empirically tested before and would be interesting to study (Ulrich, 1995, p.419).

This study thus aims to studying the effect of supply chain management (SCM) and logistics on the competitive advantage and organizational performance.

As it is of interest to study various factors on an outcome variable that is of practical importance to businesses, competitive advantage is the one that is of prime importance to survive and thrive in today's high paced business environment.

This study builds the construct supply chain management, logistics, competitive advantage, and organizational performance based on prior literatures. As in any empirical study, it will not be possible to test a relationship without valid and reliable measurement instruments for the constructs involved in the relationships. Therefore, a contribution of the current research is the development of a valid and reliable instrument for the supply chain management, logistics, competitive advantage, and organizational performance. The newly developed instruments are tested

empirically, using data collected from respondents to a survey questionnaire. Structural equation modeling is used to test the hypothesized relationships.

2.2 Supply Chain Management

2.2.1 Evolution of Supply Chain Management

In the 1950s and 1960s, most manufacturers emphasized mass production to minimize unit production cost as the primary operations strategy, with little product or process flexibility. New product development was slow and relied exclusively on in-house technology and capacity. Bottleneck operations were cushioned with inventory to maintain a balanced line flow, resulting in huge investment in work in process (WIP) inventory. Sharing technology and expertise with customers or suppliers was considered too risky and unacceptable and little emphasis appears to have been placed on cooperative and strategic buyer supplier partnership. The purchasing function was generally regarded as being a service to production, and managers paid limited attention to issues concerned with purchasing. In the 1970s, Manufacturing Resource Planning was introduced, and managers realized the impact of huge WIP on manufacturing cost, quality, and new product development, and delivery lead-time. Manufacturers resorted to new materials management concepts to improve performance within the "four walls" of the company (Tan, 2001, p.39).

The intense global competition in the 1980s forced world-class organizations to offer low cost, high quality, and reliable products with greater design flexibility. Manufacturers utilized just in time (JIT) and other management initiatives to improve manufacturing efficiency and cycle time. In the fast-paced JIT manufacturing environment with little inventory to cushion production or scheduling problems, manufacturers began to realize the potential benefit and importance of strategic and cooperative buyer-supplier relationship. The concept of supply chain management emerged as manufacturers experimented with strategic partnerships with their immediate suppliers. In addition to the procurement professionals, experts in transportation and logistics carried the concept of materials management a step further to incorporate the physical distribution and transportation functions, resulting in the integrated logistics concept, also known as supply chain management (Tan, 2001, p.48).

The evolution of supply chain management continued into the 1990s accompanied by increasing logistics and inventory costs and the trend toward market globalization, the challenges associated with improving quality, manufacturing efficiency, customer service, and new product design and

development also increased. To deal with these challenges, manufacturers began purchasing from a selected number of certified, high- quality suppliers with excellent service reputations and involved these suppliers in their new product design and development activities as well as in cost, quality, and service improvement initiatives. This is done so by reducing the supply base as much as a single supplier and enter into a long-term agreement as strategic alliance in doing their business. As companies began implementing supply chain management initiatives, they began to understand the necessity of integrating all key business processes among the supply chain participants enabling the supply chain to act and react as one entity (Ensermu, 2013, p.54).

2.2.2 Supply Chain Management Definitions

The Council of Supply Chain Management Professionals (CSCMP), (formerly The Council of Logistics Management (CLM)), a leading professional organization promoting SCM practice, education, and development, defines SCM as:

SCM encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities, including coordination and collaboration with suppliers, intermediaries, third-party service providers, and customers. Thus, the supply chain encompasses all activities involved in the production and delivery of a final product or service, from the supplier's supplier to the customer's customer at the right cost, at the right quantities, at the right time, to the right places and customers (Fugate et al., 2010, p.52).

In essence, supply chain management integrates supply and demand management within and across companies, CSCMP emphasizes that SCM encompasses the management of supply and demand, sourcing of raw materials and parts, manufacturing, and assembly, warehousing and inventory tracking, order entry and order management, and distribution and delivery to the customer (Fugate et al., 2010, p.55).

Cooper et al. (2007) define SCM as the management and integration of the entire set of business processes that provides products, services and information that add value for customers (Cooper et al., 2007, p.14).

Several authors have defined supply chain management, Christopher (2003), New & Payne (1995), and Simchi-Levi et al. (2000) define supply chain management as "the integration of key business processes among a network of interdependent suppliers, manufacturers, distribution centers, and retailers in order to improve the flow of goods, services, and information from original suppliers

to final customers, with the objectives of reducing system-wide costs while maintaining required service levels" (Stapleton et al., 2006, p.108).

The Global Supply Chain Forum (GSCF) defines supply chain management as "the integration of key business processes from end user through original suppliers, that provides products, services, and information that adds value for customers and other stakeholders" (Lambert et al., 1998, p.1). The APICS dictionary (1995) describes SCM as – "the processes from initial raw materials to the ultimate consumption of the finished product, linking across supplier-user companies" (Green et al., 2008, p.317).

A supply chain is a network of organizations performing various processes and activities to produce value in the form of products and services for the end customer (Christopher, 2003, p34). SCM concerns the integrated and process-oriented approach to the design, management and control of the supply chain, with the aim of producing value for the end customer, by both improving customer service and lowering cost (Giannoccaro & Pontrandolfo, 2002, p.153).

Lummus and Vokurka (1999) summarize SCM as "all the activities involved in delivering a product from raw material through to the customer, including sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, delivery to the customer, and the information systems necessary to monitor all of these activities" (Lummus & Vokurka, 1999, p.13).

According to Li et al. (2006) the dual purpose of SCM is to improve the performance of an individual organization as well as that of the entire supply chain (Li et al., 2006, p.124).

CLM definitions clearly establish that SCM is more broadly conceived than merely "logistics outside the firm" (Lambert, 2004, p.18).

Recent research supports this conception, portraying SCM as a strategic level concept (Stank et al., 2005, p.27).

Mentzer et al. (2001) consider SCM as a systemic, strategic coordination of business functions within an organization and between organizations within the supply chain, for improving the long-term performance of individual companies and the supply chain as a whole. The emphasis of each of these definitions is on the objective of SCM to create a distinctive advantage by maximizing the total value of products and services (Mentzer et al., 2001, p.23).

SCM is a discipline in the early stages of evolution (Gibson et al., 2011, p.25).

SCM gives a concrete form to the so called "business ecosystem idea" and provides a framework of processes for firms to engage in co-existence rather than competition (Bechtel & Jayaram, 1997, p.15).

Consultants proposed the term and educators proposed the structure and theory for executing SCM. The term "supply chain management" first appeared in 1982. Around 1990, academics first described SCM from a theoretical point of view to clarify the difference from more traditional approaches and names (such as logistics), to managing material flow and the associated information flow (Cooper et al., 2007, p.13).

Cooper et al. (2007) provide a valuable review of 13 early SCM definitions: a solid argument that SCM and logistics are not identical. The term supply chain management has grown in popularity over the past two decades, with much research being done on the topic (Cooper et al., 2007, p.17). SCM is widely being talked about in various journals and magazines related to manufacturing, distribution, marketing, customer management, or transportation (Ross, 1998, p.23).

Furthermore, Lummus and Vokurka (1999) add that SCM links all the departments within an organization as well as all its trading partners (suppliers, customers, 3PL providers, and information systems providers). There is mutual collaboration and companies work together to make the whole supply chain competitive. Information technology is widely used to share information and generate demand forecasts. The underlying idea in SCM is that the entire process must be viewed as a single system. The core competencies of individual organizations are determined and are cashed on, to create enhanced competitive advantage for the supply chain (Lummus & Vokurka, 1999, p.19).

By the 1990s, firms recognized the necessity of collaboration with suppliers and customers in order to create superior customer value. This movement titled supply chain management or value chain management shifted a company's focus from within an enterprise to managing across firm boundaries.

Boddy et al. (1998) found that more than half of the respondents to their survey considered that their organizations had not been successful in implementing supply chain partnering (Boddy et al., 1998, p.143).

Spekman and Myhr (1998) noted that 60% of supply chain alliances tended to fail. Deloitte Consulting survey reported that only 2% of North American manufacturers ranked their supply

chains as world class although 91% of them ranked SCM as important to their firm's success (Spekman & Myhr 1998, p.53).

Thus, while it is clear that SCM is important to organizations, effective management of the supply chain does not appear to have been realized (Jones, 1999, p.42).

Bowersox and Closs (1996) argued that to be fully effective in today's competitive environment, firms must expand their integrated behavior to incorporate customers and suppliers (Bowersox & Closs, 1996, p.93).

In this context, the philosophy of SCM turns into the implementation of supply chain management: a set of activities that carries out the philosophy. This set of activities is a coordinated effort called SCM between the supply chain partners, such as suppliers, carriers, and manufacturers, to dynamically respond to the needs of the end customer (Greene, 1995, p.24).

Thus, SCM integrates both information flow and the flow of goods seamlessly between trading partners as an effective competitive weapon (Feldmann & Muller, 2003, p.63).

SCM has been receiving increased attention from all fronts, namely academicians, consultants, and business managers since the early 1990s (Tan et al., 2002, p.614).

Organizations have recognized that SCM is the key to building sustainable competitive edge in the 21st century (Jones, 2002, p.103).

SCM has been widely talked about in prior literature from various viewpoints such as purchasing, logistics, distribution, transportation, operations and manufacturing management, organizational behavior, and management information systems (Croom et al., 2000, p.67).

Industrial organization and transaction cost analysis, resource-based and resource-dependency theory, competitive strategy and social–political perspective is some of the aspects of SCM (Rungtusanatham et al., 2003, p.1084).

The concept of SCM has been studied from two perspectives, namely purchasing (supply management), and logistics (transportation, distribution, warehousing, and inventory management) (Tan et al., 2002, p.631).

According to the purchasing perspective, SCM is synonymous with supplier integration and has evolved from traditional purchasing and materials functions (Banfield, 1999, p.64).

From the logistics management perspective, SCM is synonymous with distribution, logistics, inventory management, and customer relationships (Alvarado & Kotzab, 2001, p.183).

In due course, these two perspectives evolved into one single philosophy of SCM with integrated systems, processes, and practices between trading partners, to better understand the influence of SCM practices on competitive advantage, four constructs have been identified through a comprehensive literature review. A research framework is then developed that depicts the various causal relationships between these constructs.

The four proposed constructs in the model includes:

- SCM Practices: "A set of activities undertaken by an organization to promote effective management of its supply chain" (Li et al., 2006, p. 108).

- Modularity Based Manufacturing Practices: The application of unit standardization or substitution principles to product design, production process design and organizational design (Tu et al., 2004, p.151).

- Supply Chain Responsiveness: The capability of promptness and the extent to which the supply chain addresses changes in customer demand (Tu et al., 2004, p.152).

- Competitive Advantage: "The extent to which an organization is able to create a defensible position over its competitors" (Li et al., 2006, p. 111).

According to Lumsden et al. (1998), a supply chain consists of five different flows described in the following (Lumsden et al., 1998, p.93):

- The physical flow of materials consists of the transported goods from the producer to the consumer.

- The monetary flow usually goes from the consumer back to the producer through the organizations in the supply chain.

- The horizontal flow of information is bidirectional, from the consumer to the producer and back again. Information is needed, for example, to produce right products or concerning delivery times.

- The vertical information flow goes between the four horizontal flows, for example, a track-and-trace system on a truck.

- Another physical flow is the resource flow, for example, containers used to transport the goods from one destination to another or forklift trucks inside the company's premises.

2.2.3 Supply Chain Management as a Management Philosophy

Supply chain management as management philosophy takes a system approach to viewing the supply chain as a single entity. This means that the partnership concept is extended into a multi firm effort to manage the flow of goods from suppliers to the ultimate customer. Each firm in the supply chain directly or indirectly affects the performance of other supply chain members, as well as the overall performance of the supply chain (Cooper et al., 2007, p.23).

2.2.4 Supply Chain Management as a Set of Management Processes

Supply chain management is increasingly being recognized as the integration of key business processes across the supply chain. Implementation is carried through by three primary elements; the supply chain network structure, the supply chain processes and the management components. In terms of supply chain network structure, it is important to integrate decisions related to purchasing, manufacturing, stocks, warehousing and distribution. On the other hand, it is important to design a set of standard processes which will assure rational behavior of the individuals or companies that are part of the supply chain. Last but not least, it is necessary to define control mechanism to be able to audit performance of supply chain according to the plan. This is conducted by coordinating activities and processes in order to build links between supply chain members and making the right decision. There are several organizations trying to set cross-industry standard processes such as Global Supply Chain Forum (GSCF), Supply-Chain Operations Reference Model (SCOR), Collaborative Planning, Forecasting & Replenishment (CPFR) and Rosseta Net, which can help members of a supply chain integrate efficiently. The Global Supply Chain Forum defines supply chain management as "the integration of key business process from end user through to original suppliers that add value to customers and stake holders" (Cigolini et al., 2004, p.7).

2.2.5 Supply Chain Management Practices

'SCM practices is defined as "the set of activities undertaken by an organization to promote effective management of its supply chain" (Li et al., 2006, p.109).

Arawati (2011) identify SCM dimensions as it encompasses: Strategic Supplier Partnership, developing trust and collaboration among supply chain partners as well as customers; Lean Production, is associated with continuous pursuit of improving the processes, a philosophy of eliminating all non-value adding activities and reducing waste within an organization;

Postponement Concept, Postponement involves the process of delaying final product configuration until the actual order requirement is specified by the customer. Keeping products in semi-finished would allow more flexibility and customization in completing the final products and also enables a company to respond more quickly to market demand and New Technology and Innovation, New technology and innovation refers to the application of the latest scientific or engineering discoveries to the design of operations and production processes in SCM (Arawati, 2011, p.98).

SCM practices as a set of activities carry out in any organization to promote effective management of its supply chains; From this we can see that component of SCM practices includes supply and material management issues, operations, information technology and sharing (Information Communication Technologies) and customer service. Other components such as technology, cost, inventory management, competitiveness, and external regulations, according to needs to be managed effectively to achieve to business goals of each supply chain members. It also leads to value creation to end customer (Charles et al, 2014, p.16).

SCM practices are a fundamental to firm performance; in today's globalized business all firms get their competitive advantage by managing various challenges within the country and internationally and this devote substantial attention. As effective SCM provides benefits that go beyond the entities or the organization itself on both of its upstream and downstream sides and those firms may comprehend their potential of integrating their external relationship that is the firm's external suppliers, the firm itself and the firm's customer and also the firm's internal operational practices with a view to enhancing their level of competitiveness and performance as well as customer satisfaction (Deshpande, 2012, p.8).

SCM involves the coordination and configuration of different process that is necessary to make products available in a timely, reputable, and suitable condition. The distinctiveness of SCM could be achieved by identifying and making use of SCM practices, in organized way. SCM practices involve a set of activities undertaken by the organization to promote effective management of their supply chain (Talib et al., 2011, p.268).

Li et al. (2006) proposed 'SCM practices as a multi-dimensional construct that includes both upstream and downstream sides of the supply chain (Lee, 2004, p.102).

Donlon (1996) considered outsourcing, supplier partnership, information sharing, cycle time compression, and continuous process flow, as SCM practices (Donlon, 1996, p.54).

Tan et al. (2002) used quality, purchasing, and customer relations to represent SCM practices, in their empirical study (Tan et al., 2002, p.619).

Alvarado and Kotzab (2001) focused on inter-organizational system use, core competencies, and elimination of excess inventory through postponement, as SCM practices (Alvarado & Kotzab, 2001, p.98).

Using factor analysis, Tan et al. (2002) identified supply chain integration, information sharing, customer service management, geographic proximity, and JIT capability, as the key aspects of SCM practice (Tan et al., 2002, p.620).

Lee (2004) in his case study-based research identified five practices at the supply chain level that are a key to creating supply chain responsiveness. They are outsourcing, strategic supplier partnerships, customer relationships, information sharing, and product modularity (Lee, 2004, p.112).

Chen and Paulraj (2004) used long-term relationship, cross-functional teams, supplier base reduction, and supplier involvement (Chen & Paulraj, 2004, p.50).

Min and Mentzer (2004) identified long-term relationship, information sharing, vision and goals, risk and award sharing, cooperation, process integration, and supply chain leadership underlying the concept of SCM (Min & Mentzer, 2004, p.63).

Li et al. (2006) identified strategic supplier partnership, customer relationship, and information sharing as key SCM practices (Li et al., 2006, p.101).

SCM has been supported as a strategic level concept with a "multi-firm focus" on creating competitive advantage "by maximizing the total value delivered to end-customers" (Stank et al., 2005, p.45).

1. Strategic Supplier Partnership:

Is defined as "the long-term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits" (Li et al., 2006, p.109).

Gunasekaran et al. (2001) assert that a strategic partnership emphasizes long-term relationship between trading partners and "promotes mutual planning and problem-solving efforts" (Gunasekaran et al., 2001, p.71).

Strategic partnerships between organizations promote shared benefits and ongoing collaboration in key strategic areas like technology, products, and markets (Yoshino & Rangan, 1995, p.79).

Strategic partnerships with suppliers facilitate organizations to work closely and effectively with a few suppliers rather than many suppliers that have been selected solely on the basis of cost. Some of the advantages of including suppliers early in the product-design process as mentioned by Tan (2001) are that suppliers can offer cost effective design alternatives, assist in selecting better components and technologies, and aid in design assessment (Tan, 2001, p.51).

Porter (1985) suggested that co-operation could enable partners to achieve a stronger position together than they can alone (Porter, 1985, p.13).

Globalization (includes global sourcing) has forced companies to manage their supply, manufacturing, and logistics more effectively. Mentzer et al. (2001) suggests that the key to effective management in the global environment is to have closer relationships with suppliers; cooperation among the supply chain members is required for effective SCM (Mentzer et al., 2001, p.27).

The past two decades have seen an increasing trend in long term, collaborative relationships by organizations with a few trusted suppliers (Sheth & Sharma, 1997, p.91).

Kalwani and Narayandas, (1995) add that firms are moving from the traditional approach of a one-time cost-based relationship with many suppliers to long term relationships with a few good suppliers (Kalwani & Narayandas, 1995, p.16).

Tomkins (2001) explored the role of trust and information sharing in inter- organizational relationships (Tomkins, 2001, p.91).

The role of "commitment" and "trust" in relationship marketing and inter- organizational collaboration has been widely talked about since the late 80s (Morgan & Hunt, 1994, p.20).

The purpose of strategic partnerships is to enable enhanced coordination in operations, R&D, product launching, and the like, between partners (Fulconis & Paché, 2005, p.92).

There has been abundant literature since the 1990s on strategic supplier partnership in strategy literature, in some industries, startups and partnership changes are expensive and time consuming and long-term contracts are preferred (Mason et al., 2002, p.10).

Tracey et al. (1999) conducted a research study on the impact of supplier selection and involvement on manufacturing performance. They concluded that the level of supplier involvement in continuous improvement activities and in product development efforts is low in North American supply chains. Although many managers acknowledge the need for enhanced relationships in the channel, it is not being implemented consistently in the manufacturing sector. They also conclude

that increased company/supplier involvement may have significant impact on supply chain performance (Tracey et al., 1999, p.411).

Immediate supplier relationship activities play a vital role in developing effective SCM strategies. Long-term relationship does not refer to any specific period, but rather, to the intention that the arrangement is not going to be temporary. Through close relationships supply chain partners are willing to share risks and reward and maintain the relationship on a long-term basis (Wisner, 2003, p.26).

Furthermore, a considerable amount has been written documenting the integration of suppliers in the new product development process (Shin et al., 2000, p.317).

De-Toni and Nassimbeni (1999) found that a long-term perspective between the buyer and supplier increases the intensity of buyer–supplier coordination (De-Toni & Nassimbeni, 1999, p.597).

The Japanese supplier partnership system is widely discussed in the literature, Japanese companies in electronics, automobiles, and machinery industries began involving their suppliers in joint design with their customers (Nishiguchi & Brookfield, 1997, p.97).

To create a competitive advantage, SCM is increasingly emphasizing Interorganizational co-ordination of activities (Ballou et al., 2000, p.7).

2. Customer Relationship:

Is defined as "the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction" (Li et al., 2006, p.109).

Noble (1997) considers customer relationship management as an important component of SCM practices (Noble, 1997, p.23).

Croxton et al. (2001) consider customer relationship and supplier partnership practices as key SCM practices (Croxton et al., 2001, p.13).

An organization's customer relationship practices can affect its success in SCM efforts as well as its performance (Turner, 1993, p.52).

Successful SCM involves customer integration at the downstream and supplier integration at the upstream, considering that each entity in a supply chain is a supplier as well as a customer (Tan et al., 2002, p.622).

In this global competition and mass customization era, personalized attention and better relationship management with individual customers is of utmost importance for organizational success (Wines, 1996, p.32).

Good relationships with trading partners, including customers are a key to successful SCM efforts by organizations (Moberg et al., 2002, p.755).

Customer relationship has long been recognized as an internal component of an organization's marketing strategy to increase sales and profits (Bommer et al., 2001, p.11).

Close customer relationship allows product differentiation from competitors, helps sustain customer loyalty, and elevates the value provided to customers (Magretta, 1998, p.72).

Immediate customer relationship activities have played a crucial role in developing effective SCM strategies (Wisner, 2003, p.29).

3. Information Sharing:

Refers to "the extent to which critical and proprietary information is communicated to one's supply chain partner" (Li et al., 2006, p.110).

Gibson et al. (2011) mention that shared information can vary from strategic to tactical in nature, it could be pertaining to logistics, customer orders, forecasts, schedules, markets, or more (Gibson et al., 2011, p.27).

Information sharing refers to the access to private data between trading partners thus enabling them to monitor the progress of products and orders as they pass through various processes in the supply chain (Simatupang & Sridharan, 2005, p.257).

Simatupang and Sridharan (2005) bring forth some of the elements that comprise information sharing, including data acquisition, processing, storage, presentation, retrieval, and broadcasting of demand and forecast data, inventory status and locations, order status, cost-related data, and performance status. They further add that information sharing pertaining to key performance metrics and process data improves the supply chain visibility thus enabling effective decision making. Information shared in a supply chain is of use only if it is relevant, accurate, timely, and reliable (Simatupang & Sridharan, 2005, p.274).

Information sharing with trading partners enables organizations to make better decisions and to take actions on the basis of greater visibility (Davenport et al., 2001, p.117).

In recent years, uncertainties have become a greater concern in supply chains. The direct consequences are increased inventories and the distortion of demand forecasts. Moreover, the

distortion propagates through the supply chain and is amplified at each stage the well-known bullwhip effect, through information sharing, the demand information flows upstream from the point of sales, while product availability information flows downstream in a systematic manner (Lee & Whang, 2001, p.22).

Moreover, information sharing ensures that the right information is available for the right trading partner in the right place and at the right time (Liu & Kumar, 2003, p.523).

According to Lummus and Vokurka (1999), in order to make the supply chain competitive, a necessary first step is to acquire a clear understanding of supply chain concepts and be willing to openly share information with supply chain partners (Lummus & Vokurka, 1999, p.11).

Availability of accurate and up-to-date marketing data at every node within the supply chain is a key to create a seamless supply chain (Childhouse & Towill, 2003, p.27), Lalonde (1998) regards information sharing as one of key element that characterizes a strong supply chain relationship (Lalonde, 1998, p.7).

Yu et al. (2001) points out that the negative impact of the bullwhip effect on a supply chain can be reduced or eliminated by sharing information with trading partners (Yu et al., 2001, p.114).

Lau and Lee (2000) maintain that creating an environment for controlled sharing of business data and processes, improves information sharing effectiveness among trading partners (Lau & Lee, 2000, p.598).

However, there is the reluctance on the part of organizations in the supply chain to share information with each other. Information is generally viewed as providing an advantage over competitors, and organizations resist sharing with their partners due to the fear of giving away competitive and sensitive information such as inventory levels, production schedules (Lancioni et al., 2000, p.45).

4. Lean Practices:

According to Lean Enterprise Institute (2009) the term lean was coined by Krafcik in the late 80`s, even though the philosophy came to the Western world`s attention in the early 80`s as a result of competition from Japan automobile industry which offered low prices and quality products. To precisely define lean is hard and it is likely that every company exercising lean will follow their own unique course. It is the process of removing all of the wasted time and resources in the production process. Lean can be considered a philosophy, a work culture, a technique, a management concept, a value, a methodology or an ethos. Today, lean is evolving into a

management approach that improves all the processes at each level of an organization (Mark & Roy, 2009, p.132).

2.2.6 Supply Chain Performance Indicators

Supply chain performance is a two-dimensional definition which consists of effectiveness & efficiency, Effectiveness is about "doing the right things" & efficiency is about "doing things right". Supply chain effectiveness relates to the preference of the end-consumer & the sole indicator is consumer satisfaction (Bowersox et al., 2006, p.16).

Conversely, supply chain efficiency relates to the objective performance of processes. Efficiency indicators measure an output level against an input level (Arawati, 2011, p.95).

The supply chain operations reference (SCOR) model was introduced in 1996 by the Supply-Chain Council, which is a global organization of firms interested in SCM.

The SCOR model advocates hundreds of performance metrics used in conjunction with five performance attributes: reliability, responsiveness, flexibility, cost, and asset metrics (Cousins et al, 2006, p.697).

Sabry (2015) states that in modern SCM, quality is taken as a given and that factors in quality management and improvement are somewhat separate from those in SCM development (Sabry,2015, p.23).

Supply Chain Council (2006) presents five attributes of SC performance as quoted by Sillanpaa (2011) (Sillanpaa, 2011, p.47):

1. SC Reliability: The performance of the SC in delivering the correct product to the correct place, at the correct time, in the correct condition and packaging, in the correct quantity, with the correct documentation, to the correct customer.
2. SC Responsiveness: The speed at which a SC provides products to the customer.
3. SC Flexibility: The agility of a SC in responding to marketplace changes to gain or maintain competitive advantage.
4. SC Costs: The costs associated with operating the SC.
5. SC Asset management: The effectiveness of an organization in managing assets to support demand satisfaction. This includes the management of both assets: fixed and working capital.

2.2.7 Modern Supply Chain Management Concepts

While researching the literature concerning SCM, a few research areas are often encountered. As the SCM literature commenced in the 1980's, the main contents of the research were to define and understand the supply chains. Later, the researchers seem to have concentrated in defining how to use SCM as effectively as possible. In the modern literature, several concepts for effective SCM have been presented, but three concepts tend to appear in the background fluently. These strategic concepts are supply chain collaboration, agile supply chains and supply chain integration, and they are presented in the following sections.

1. Supply Chain Collaboration:

Co-operation within the supply chains is often referred as supply chain collaboration. During the last decade, new forms of collaboration in supply chains have been developed. They are developed in order to further advance the ordinary information sharing relations. The new forms of collaboration extend their focus to include not only a passive exchange of information between the partners, but also a more proactive approach through common planning and synchronization of activities and business processes (Skjoett-Larsen et al., 2003, p.531).

To reach such collaboration, several personal contacts were required in the past. However, with modern information technology a great deal of co-ordination and face-to-face meetings are possible to replace by technology, the companies in the supply chains need to have common goals. Collaboration can help the individual companies to understand the goals of the whole network whether it involves both the economic goals and the social dimensions of the network (Batt & Purchase, 2004, p.169).

For this purpose, a concept Collaborative Planning, Forecasting and Replenishment (CPFR) was introduced 1995. The concept is defined as follows:

"Collaboration where two or more parties in the supply chain jointly plan a number of promotional activities and work out synchronized forecasts, on the basis of which the production and replenishment processes are determined" (Skjoett-Larsen et al., 2003, p.532).

The CPFR concept includes the processes of planning, forecasting and replenishment in the supply chains and aims to soothe the information exchange between companies. The concept is based on a nine-step process model that works as a guideline towards CPFR collaboration (Skjoett-Larsen et al., 2003, p.533).

2. Agile Supply Chains:

Lumsden et al. (1998) argues that an agile supply chain has a high capability to flexibly adapt to the fast-changing environment. With this capability, the network can more easily accomplish the paramount goal of the supply chain, gain customer satisfaction. An agile supply chain consists of well-designed organizational structures, information systems and logistics processes (Lumsden et al., 1998, p.98).

However, the principal fact enabling agility is the skills of the management. The agility of supply chains is also understood as a measure of how well the relationships between members enhance the four pivotal objectives of agile manufacturing. Basically, agility is about the combination of speed and flexibility of the network (Raaij, 2016, p.26).

Naylor et al. (1999) initiate a compact definition for agility:

"Agility means using market knowledge and a virtual corporation to exploit profitable opportunities in a volatile marketplace" (Naylor et al., 1999, p.107).

The benefits of agility can be found at all the actors of the supply chain; every company benefits from the supply chain being flexible and responsive. The agility is often achieved by modern information technology, which enables to react quickly to the fluctuations in product demand and sourcing problems. The agility can be applied in a range of business situations in the companies (Hurd et al., 2004, p.55).

Like Naylor et al. (1999) define; agile organizations are market-driven, often investing in product research, and striving towards short development and introduction cycles. Furthermore, an agile company performs all physical activities quickly and accurately because the faster material, information, and decision streams through the chain, the shorter the response time to the market needs. An agile company attempt to shorten the distance between the points in the flow (Naylor et al., 1999, p.108).

Yusuf et al. (2004) discuss supply chain agility in the terms of two dimensions: reach and range of the activities that are covered by the information systems. With reach is meant the extent of the used information system in the organization and its environment, while range means the level of the integration between actor's information systems. When both of the dimensions are achieved maximally, the internal operations will be transparent to all supply chain members and the earlier discussed benefits could therefore be obtained. In practice, this can lead to employees thinking

globally and, for example, setting up virtual teams between companies within the supply chain (Yusuf et al., 2004, p.379).

3. Supply Chain Integration:

Integration along the supply chain has been considered to be a source of competitive advantage. Therefore, numerous supply chain managers and researchers have seen integration as an interesting and important issue to research (Gimenez & Ventura, 2005, p.20).

Christopher (2003) presents four different phases to supply chain integration. At first, the companies have their internal departments that strive for optimized processes inside them. By doing this, the departments become competitors to each other, and they do not care how the following department will be affected if changes are carried out. This is illustrated as phase1.

Phase2, the functional integration, is a step towards a company-wide integration. By communicating between the departments, the functions that are dependent on each other, will build integrated blocks. These functions could be, for example, purchasing and material control. Sharing the market information between functions should guide the firm to respond better and faster to customer's needs or problems and to competitive threats. Consequently, fluent responses to the challenges that customers are placing should produce greater loyalty, profitability, and sales.

The third phase represents already an internal integration, where the functions inside the company are integrated so that they all strive to common goals. The company must have a culture for internal integration before being able to share information with external partners, e.g., suppliers and customers. Achieving this phase needs unrestrained communication between the departments, and this can be accomplished, for example, by using modern information systems.

The fourth phase, external integration, illustrates the eventual goal of coordinated processes: the supply chain management. In this phase the participants of the supply chain have common goals. Like logistics strives to create an optimized flow through a company, SCM strives to optimize the coordinated processes through the whole supply chain and its participants (Christopher, 2003, p.36).

Information systems and other communication technology are seen as the enabler for working external supply chain integration. Technologies like EDI4, for example, could reduce demand amplification effects along the supply chain. Reduced stock keeping costs and improved delivery performance are often pointed out as consequences for the better information flow between the supply chain actors (Rungtusanatham et al., 2003, p.1099).

Olavarrieta et al. (1997) refers to the fact that many companies try to upgrade their logistical capabilities with focus on information-based logistics partnerships and on integrated SCM. They warn that forming these solutions require time to develop and integrate, because:

"Distinctive logistics capabilities involve a complex combination of physical assets organizational routines, people skills and knowledge" (Olavarrieta et al., 1997, p.572).

Olavarrieta et al. (1997) state that suitable and appropriate channel partners may be difficult to find. Their conclusion is that companies who pre-empt competitors by securing successful partnerships should be better positioned to develop and enhance their logistics capabilities (Olavarrieta et al., 1997, p.587).

2.2.8 Barriers to Supply Chain Management

According to Tien et al. (2019) there are several impediments (barriers) to collaboration within the supply chain: widespread human resistance to change, required time horizon and scale of investment, lack of trust, poor communication. Understanding these barriers and developing the collaborative mindset needed to overcome them are the first steps toward achieving truly integrated supply chain management (Tien et al., 2019, p.13).

1. Lack of Trust:

For the better part of the last century, most organizations have maintained an arm's length relationship with their suppliers and customers. In addition, many organizations are found to engage in various questionable business practices in their relationships with trading partners both locally and globally. Where these negative behaviors occurred, there were significantly lower levels of trust and commitment. Given this legacy, it's not surprising that initiatives to establish collaborative relationships across the supply chain will be met with skepticism and distrust (Tien et al., 2019, p.13).

2. Little Understanding or Commitment to SCM Principles:

Most managers are somewhat comfortable dealing with relationships in their own function. But they become less comfortable when the relationship involves other functions in the organization. And they're least comfortable when it comes to dealing with external organizations in their supply chain. The inter-organizational comfort increases as managers begin to understand the importance of integrated activity and commit to working for the betterment of the whole supply chain as

opposed to just their part. Organizations will never achieve true collaborative behavior if they cannot overcome their fear of losing autonomy and of sharing sensitive information. This barrier to the adoption of supply chain management initiatives is especially troubling because for managers time is particularly a precious commodity. Faced with what they perceive as to be a time-consuming effort, few managers will make the effort to understand the new collaborative approach, its benefits, and its implementation requirements (Tien et al., 2019, p.13).

3. Fear of Relinquishing Control:

Most managers want to be evaluated on actions that are completely under their control. Understandably, no one wants to be held accountable for results that are partially the responsibility of others, be they inside or outside the organization. Because many supply chain initiatives demand joint efforts and close cooperation, it is easy for supply chain managers to feel at the mercy of another organization or individual as they work to achieve a certain level of supply chain performance, for example, taking an initiative to reduce total cycle time for processing an order. This activity is not completely controlled by anyone inside or outside the organization. For many, this is a major barrier to embracing the collaborative approach (Tien et al., 2019, p.13).

4. Different Goals and Objectives:

The goals of the various partners may differ significantly, simply because they face different market and competitive situations, different strategic and financial circumstances, different environments as defined by organization size, structure of ownership, culture, and identity. If the overall supply chain goals are not universally accepted, the likelihood of agreeing on joint supply chain initiative is slim (Tien et al., 2019, p.14).

5. Inadequate Information Systems:

Most organizations do not possess their own information systems to gather all the information required to integrate the processes and systems of all the supply chain participants. In fact, many organizations still struggle with using and comprehending all the traditional data they gather on their own performance. Imposing an entirely new set of information requirements that spans all the corners of the organization may be beyond the capacity of the existing systems. Efforts to build consensus around a set of information and performance measures must be consistently supported by the highest levels of management for any measure of supply chain collaboration to succeed.

Organizations also must invest significantly in information systems to support the new supply chain information requirements (Tien et al., 2019, p.14).

6. Short-Term Focus on Outcomes:

The fact that top managers in major public corporations must pay so much attention to their stock value, and therefore to short-term performance, is a huge barrier to successful supply chain initiatives. The reason is that the effort associated with these initiatives typically requires considerable time and involves significant investment in resources. If top management is constantly besieged by market watch and stockholders, it may have scant opportunity to invest the time and effort necessary for true supply chain integration. It is easy for trade press to tout the benefits of integrated supply chains and collaborative behavior. However, a management under siege may not have the luxury of waiting for the benefits of integrated behavior to occur (Tien et al., 2019, p.14).

7. Involvement in Too Many Supply Chains:

Involvement in multiple supply chains, both horizontally and vertically, poses another major hurdle to supply chain management. The problem revolves around competition and competitive actions. Many manufacturing organizations sell their products to multiple retail customers that compete directly with each other. The retailers, for their part, sell products from multiple manufacturers in direct competition with each other. Organizations need to be able to figure out how to keep their initiatives in each supply chain unique and mutually beneficial without giving away competitive information to participants in their other supply chains. This is a daunting task. In fact, it may mean that the only way to implement supply chain management successfully is to work with just a few but important supply chains and, in the remaining situations, simply conduct transactions in an arm's length manner. This may explain why most success stories only involve two large trading partners. Typically, these relationships do not extend beyond first tier, either upstream or downstream (Tien et al., 2019, p.14).

2.2.9 Overcoming the Barriers to Supply Chain Management

Identifying the major barriers to supply chain management success is only the first step. Because supply chain management represents a significantly different business model and style of management, organizations need to drastically change their philosophies and strategies to make it

happen. According to Tien (2019) the actions described below will help organizations make the necessary changes and overcome the barriers to supply chain management (Tien et al., 2019, p.15).

1. Develop a New Breed of Manager:

Because of the quite long history of arm's length relationships, the new collaboration required by supply chain management will not be embraced quickly or easily. And if it is not fully supported by top management, it won't be embraced at all. Organization leaders must visibly support the brand-new approach and drive a collaborative culture down through the organization to all levels of operating management. If organizations are going to ask their people to share information with other organizations, make sacrifices for the sake of the supply chain, develop stronger relationships, and change their current logistics practices, top management must lead the way in doing so. Through their words and actions, the leaders need to demonstrate that supply chain management is a worthy goal whose implementation will improve organization performance in the long run (Tien et al., 2019, p.15).

2. Build Relationship-Management Skills:

Relationship management is one critical skill required of the new breed of manager whether it is customer relationship management or supplier relationship management. A strong relationship with all trading partners is a core requirement of successful supply chain management program. Such relationships may significantly increase the likelihood that supply chain management initiatives will be fully and successfully implemented. The best way to develop a relationship management skill and capability is through intensive training and education. Top management needs to recognize the importance of forging strong relationships with trading partners and demonstrate that commitment by supporting these training efforts (Tien et al., 2019, p.15).

3. Establish Inter-Organizational Teams:

Using inter-organization teams to develop and implement supply chain initiatives is an effective way to overcome many of the supply chain management barriers. Top-level executives should set the example first by participating on collaborative teams with their counterparts from partnering organizations. Inter-organizational units can work together on joint training programs to foster an understanding of the integrated supply chain management concept and to show how each functional area fits within the larger supply chain scheme. Training should also demonstrate how

collaboration produces optimal results for all. The most effective approach to overcoming the barrier of conflicting goals and objectives, for example, is to involve supply chain members in a process of open dialogue for setting joint goals and resolving any conflicts that may arise. Consensus building is mandatory. If supply chain members cannot agree upon common objectives and performance levels, there is little hope that the supply chain will deliver any kind of competitive advantage. Forming joint teams of individuals from different disciplines, partners and management levels will facilitate the sharing of ideas regarding conflicting goals. At the end of the day, it may be necessary for top management of all the partnering organizations to sit down and iron out differences in philosophy, culture, approach, and orientation to achieve the desired performance levels (Tien et al., 2019, p.15).

4. Create New Performance Measures:

Evaluation and performance measures must be carefully aligned to the overall supply chain goals and linked directly to the reward system. If this doesn't happen, individuals likely will start working at cross-purposes to the supply chain objectives. These measures can be part of a gain-sharing bonus scheme in which employee bonuses are tied to improvements realized across the supply chain. As a means of controlling the measures, top management needs to reassure line managers that supply chain performance is a joint effort and only through this joint activity optimal results can be achieved. The challenge is to craft individual reward and recognition processes that are closely linked to supply chain performance measures. This can be quite difficult to achieve because it often requires people to sub-optimize their functional performance to benefit the entire supply chain. To illustrate, an individual charged with planning transportation loads to the retail customers would normally seek to build full truckloads to reduce the overall transportation costs. However, in the context of the overall supply chain, it may be more effective to ship smaller loads more frequently to minimize expensive retail inventories and maximize product availability. That changes the transportation load planner's evaluation and reward system. This individual's performance now must be measured on the criteria that go beyond simply achieving the lowest transportation costs (Tien et al., 2019, p.15).

5. Invest in Information Technology:

Supply chain management is the management of a system that incorporates multiple organizations performing a wide variety of business functions. Coordination and cooperation among these

entities is crucial, which makes communication and information exchange a vital component of successful supply chain strategy. The ability to exchange more information at an increased speed brings a host of benefits to the supply chain, significantly reduces order cycle times being one of them. To address the technology challenge, it's essential to have a champion in the IT department. This should be someone who understands the relevance of supply chain information requirements and who can work effectively with functional managers to develop and incorporate the cross-organizational informational requirements. To assure system compatibility across the partnering organizations, it's advisable to bring together several IT managers from the different supply chain member organizations to develop common data formats and performance measures. It is encouraging to note the emergence of Enterprise Resource Planning (ERP) systems and Web based information solutions that can make supply chain information sharing a reality. Studies by Forrester estimated that almost largest organizations were sharing demand, inventory, and order-status information with their trading partners. With the increasing ability to share these types of information, organizations will be able to create systems for tracking and sharing performance metrics that relate to overall supply chain outcomes (Tien et al., 2019, p.16).

6. Develop a Long-Term Focus:

Today's businesses are managed largely with a short-term perspective. Yet supply chain management requires short-term sacrifices so that the entire supply chain can benefit in the long run. As is the case with individual managers, most organizations continue to be evaluated from a short-term, quantitative perspective. For supply chain management to succeed, however, organizations must foster such an environment where the long-term implications of supply chain initiatives are considered and rewarded. The only way to correct the short-term focus of most corporations may be a public relations campaign directed at different stakeholders to explain supply chain management's benefits and the necessity of investing now for the future. A growing body of evidence suggests that those organizations with world-class supply chains significantly outperform the rest of the pack. This may be the best message to be communicated to stockholders that building the collaborative supply chain relationships is necessary for the success and future market value increment (Tien et al., 2019, p.16).

7. Engage in More Practical and Applied Research:

This last suggestion, however, applies equally to the academic community. Theory development is important for any discipline or business function, the management science. But theory development is an iterative process that requires researchers to test propositions and adjust theory based on repeated empirical research. While academic researchers recently have conducted more practical studies of supply chain management implementations, much more still are needed. Managers need evidence demonstrating how supply chain initiatives can improve organization-wide performance. This evidence can be used to support efforts to train managers, to overcome their resistance, and to obtain the necessary resources. Solid evidence of supply chain management's value can also help buy more time from investors and stockholders, gain their trust and acceptation. In addition to the applied research, the academic community plays a positive role in the advancement of supply chain management. Their main challenge here is to bridge the gap between supply chain management in theory and in practice through research that makes a solid connection between the supply chain performance and business success cases. That link will help business practitioners get the support to implement their supply chain initiatives (Tien et al., 2019, p.16).

2.3 Logistics Management

2.3.1 Definitions of Logistics

After understanding the definition of supply chain management, it is natural to present the definition of logistics management as well. Logistics includes all works necessary to physically move and position raw materials and products in a supply chain. Whilst SCM recognizes that internal integration by itself is not sufficient, logistics management is primarily concerned with optimizing flows within the organization (Christopher, 2003, p.36).

Council of Supply Chain Management Professionals stated the definition of logistics management as follows:

"Logistics management is that part of Supply Chain Management that plans, implements and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customer's requirements" (Fugate et al., 2010, p.66).

As the definition states, the fundamental idea of logistics management is to meet customer requirements. Therefore, logistics is managing the whole value-creating process. However, this definition is not completely in line with the idea Christopher has about logistics management, as the definition from CSCMP does not take into consideration whether the logistics management happens inside a company or inside a supply chain. The logistical activities are therefore an integrated part of the supply chain; the concept of SCM could be seen as an extension from the concept of logistics management, these internal logistical activities are at least as complex to manage as the external SCM. They both require a lot of information (Christopher, 2011, p.106).

The different departments of a company need both horizontal and vertical information. Without the information, internal logistics can go wrong and erode trust between the departments. Ultimately, the perceived customer value will be inflated. For example, if a retail chain's marketing department is launching a new product campaign, the information has to reach all the way to the stores and the personnel in question. If the personnel in the stores do not know about the special campaign, it is evitable that stock- outs will follow and instead of boosting the sales, the campaign results in dissatisfying the customers, communication problems like these are too usual and can deteriorate the relations both internally and also between the company and its customers (New & Payne, 1995, p.60).

2.3.2 Main Components of Logistics

A. Procurement Component

- *Definitions of Procurement*

The European Union (2014) defines procurement as the act of obtaining or buying goods and services. The process includes preparation and processing of a demand as well as the end receipt and approval of payment.

Charted Institute of Procurement and Supply (2013) defines procurement as buying, purchasing, renting, leasing, or otherwise acquiring any goods, works or services by a procuring entity and includes all functions that pertain to the obtaining of any goods, works or services, including description of requirements, selection and invitation of tenderers, preparation, and award of contracts (CIPS, 2013, p.42).

Gadde (2017) defines procurement as the purchase of merchandise or services at the optimum possible total cost in the correct amount and quality. He further reiterated that Procurement can also be simply defined as the procedure in which goods or commodities are bought when prices are low. The process of procurement often involves; purchase planning, standards determination, specifications development, supplier research and selection, value analysis, financing, price negotiation, making the purchase, supply contract administration, inventory control and stores, disposals, and other related functions (Gadde, 2017, p.67).

Ates (2018) divides procurement into three categories (Ates, 2018, p.68):

1- Purchases that require specialized research and development, such as newly designed military aircraft.

2- Purchases of complex, special purpose projects, such as dams or port facilities that do not involve advances in technology but require managerial and organizational skills.

3- Purchases of standard products sold in open markets, such as motor vehicles or medical supplies (off-the shelf purchase). Customized versions of products otherwise available in open markets, such as special purpose computer systems or fleets of police cars.

However, according to the Business Dictionary (2011), "Procurement" is the overarching function that describes the activities and processes through which an organization acquire goods and services. Procurement is the business management function that ensures identification, sourcing, access, and management of the external resources that an organization needs or may need to fulfill its strategic objectives (Brandon & Knoppen, 2018, p.446).

Procurement exists to explore supply market opportunities and to implement resourcing strategies that deliver the best possible supply outcome to the organization, its stakeholders, and customers. Procurement applies the science and art of external resource and supply management through a body of knowledge interpreted by competent practitioners and professionals (Buvik, 2009, p.439). The process of procurement is often part of an organization's operational strategy as the ability of an organization to purchase certain key resources at the right time and price, would determine their survival or otherwise in today's competitive business environment their success of performance is lean (Gadde, 2017, p.69).

According to Miles (2015) "Procurement is a complex process that can help organizations become more efficient". This is because all their goods and services would be bought at the right quality, quantity, price, and they will be delivered „just in time", thereby reducing the need to stockpile goods and parts. Reducing the amount of goods that are stored will reduces the number of resources used to store them. It also ensures that they are not overly transported, which means there is less risk of them being damaged and no resources are required to transport them. By buying goods that are of the right quality means that they are not too good for the role that they intended to fulfill, as such would be at the right price. But they will also not be sub-standard, so there is less chance of the parts and goods causing defects. One crucial role procurement plays for organizations, is its ability to create relationships. Creating good relationships with suppliers also mean that they will be flexible and help if a sudden increase in volume of goods is required. So, procurement really is vital and can really transform companies when it is done right. Although, procurement may not actually produce the goods that are sold, it can help to increase profits due to its ability to ensure that operational demands are met (Miles, 2015, p.72).

However, it is important to note that procurement is and distinct from purchasing. The term purchasing refers to the process of ordering and receiving goods and services. It is a subset of the wider procurement process. Generally, purchasing refers to the process involved in ordering goods such as request, approval, and creation of a purchase order record and the receipting of goods (Brandon & Knoppen, 2018, p.449).

Whiles procurement involves the activities involved in establishing fundamental requirements, sourcing activities such as market research, vendor evaluation and negotiation of contracts play a crucial role in successful procurement system. It can also include the purchasing activities required to order and receive goods. Corporations and public bodies often define procurement as the

processes intended to promote fair and open competition for their business while minimizing exposure to fraud and collusion, this according to Gadde (2017) is made smoother by promoting a good business relationship between the buyer and the supplier (Gadde, 2017, p.73).

According to Ohene-Addae (2012) the process of procurement may differ from company to company, and a government institution may have a slightly different procurement process compared to a private company. The procurement procedure may differ according to the product and the uses of the product. Another important factor that is usually included in the definitions of procurement is the amount in which the product is bought. This is important because the amounts of goods bought are inversely proportional to their cost. Thus, procurement is a process that is carried out by almost every company and individual for its own personal gain or for profits, which involves buying of commodities by choosing the appropriate bidder (Ohene-Addae, 2012, p.53).

Van (2016) refers to procurement as a roadmap of activities within the procurement function, the project procurement cycle reflects the procurement activities from the decision to purchase the material or service through to the payment of bills and closing of procurement contracts. It starts from the identification of a need and conducting market analysis through to the process of selecting the supplier, managing their performance, and reviewing lessons learnt. It establishes key activities required at every stage of the procurement process while at the same time providing a benchmark for the monitoring and evaluation of the process by procurement monitors and evaluators (Raaij, 2016, p.23).

In most studies conducted on public procurement, the procurement process is considered to include contract administration (Handfield, 2011). Other studies such as Lynch (2012) and Gadde (2017) believes that the public procurement process ends with contract award and that anything after contract award is considered contract administration. However, for the purpose of this, the procurement cycle would encompass activities occurring within the entire procurement with its procurement system (Handfield, 2011, p.57).

- *The Procurement Cycle*

The procurement cycle consists of activities such as planning, sourcing, contracting, contract management, storing, distribution, disposal, and evaluation.

1. Procurement Planning:

Procurement planning is the process whereby an organization decides what to buy, when and from what source. Lynch (2014) describes it as a process whereby procurement practitioners sketch out in advance an arrangement in a diagram on a plan as to what, which, when and how purchases are to be conducted in each period. During the procurement planning process, the procurement method is assigned and the expectations for fulfillment of procurement requirements determined. Lynch (2012) opinioned that effective procurement planning is essential for all procuring entities in the implementation of the purchasing objectives (Lynch, 2014, p.36).

2. Sourcing:

Sourcing is simply the process whereby an organization finds suppliers of goods and services. It's an approach to procurement whereby the business needs of the organization are matched with the supplier market, it is much more than simply centralizing procurement. The approach is founded on a detailed understanding of both the spend profile of the organization as well as of the supplier market. This understanding is continually updated to deliver ongoing improvements to the organizations sourcing and procurement performance (Wallace & Xia, 2014, p.22).

3. Contracting and Contract Management:

After suppliers of goods and services have been selected, there is the need for a written legally-binding agreement between parties identifying rights and obligations of both parties. This phase is crucial because it includes the negotiation of the terms and conditions in contracts and ensuring compliance with the terms and conditions, as well as documenting and agreeing on any changes or amendments that may arise during its implementation or execution (Weele 2010, p.18).

4. Storage, Distribution and Disposal:

Storage comes in when goods procured are not being used immediately and therefore the need to store them to ensure that no damage or loss occurs. The timely availability of goods can be very crucial to an organization's operation. Goods may require specialized storage facilities or may have very limited shelf life, so the effective storage, handling and management of stock levels are

important. Goods in storage need to be delivered to their destination for usage according to the requirements of the customer or end-user. Distribution may involve complex in-country procurements with delivery to multiple regional stores facilities or end-user sites (Ohene-Addae, 2012, p.55).

5. Evaluation:

The procurement evaluation involves collecting knowledge gained throughout the procurement process and using it to ascertain whether the organizational procurement needs, and expectations have been fulfilled and whether "value for money" has been achieved. The procurement evaluation step is geared towards eliciting ideas for improving and optimizing the achievement of procurement needs and stakeholder satisfaction in the outcomes of procurement projects in the future. According to Alarcón and Rivas (2009) the evaluation stage comprises the following steps: establishing the group of people to be interviewed; value stream maps, general and detailed; project surveys; review of performance indicators; analysis of nonconformity reports; cause-effect analysis regarding delays, costs, time cycles and others. This stage is crucial in ensuring the procurement process fulfill its strategic function of improving organizational productivity and profitability (Alarcón & Rivas, 2009, p.33).

B. Warehousing Component

- ### The Concept of Warehousing

In the context of supply chain management, logistics exists to move and position inventory to achieve desired time, place, and possession benefits at the lowest total cost (Bolten, 2007, p.53). Within the warehouse, materials handling and packaging are important activities. Products must be received, moved, stored, sorted, and assembled to meet customer order requirements. The direct labor and capital invested in materials handling equipment is a significant element of total supply chain/logistics cost (Tien et al., 2019, p.34).

Warehousing incorporates many different aspects of supply chain operations. Due to the interaction, warehousing does not fit the neat classification schemes used when discussing order management, inventory, or transportation. A warehouse is typically viewed as a place to hold or store inventory. However, in contemporary supply chain systems, warehouse functionality can be more properly viewed as inventory mixing. So herein we provide a foundation for understanding the value that warehousing contributes to the supply chain of organization. The discussion is

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relevant for all types of warehouses ranging from distribution centers, consolidation terminals, break-bulk facilities, and cross-docks. The objective is to introduce general managerial responsibilities related to warehousing. While effective logistics systems should not be designed to hold inventory for extended times, there are occasions when inventory storage is justified on the basis of cost and service (Bolten, 2007, p.55).

- *Warehouse Functionality*

Benefits realized from strategic warehousing are classified based on cost and service. No warehouse functionality should be included in a supply chain system unless it is fully justified on some combination of cost and service basis. Ideally, a warehouse will simultaneously provide economic and service benefits as indicated by Ken (2007).

1. Economic Benefits:

Economic benefits of warehousing occur when overall logistics costs are reduced. For example, if adding a warehouse in a supply chain system reduces overall transportation cost by an amount greater than required investment and operational cost, then total cost will be reduced. When total cost reductions are achievable, the warehouse is economically justified. Four basic economic benefits are: Consolidation and break-bulk; Assortment; Postponement; Stockpiling (Ackerman, 2007, p.66).

2. Service Benefits:

Warehouse service can provide many benefits through enhanced revenue generation. When a warehouse is primarily justified on service, the supporting rationale is that sales can be increased, in part, by such logistical performance. It is typically difficult to quantify service return-on-investment because it is difficult to measure. For example, establishing a warehouse to service a specific market may increase cost but should also increase market sales, revenue, and potentially gross margin. Warehouses can provide service because of: Reverse Logistics, Spot Stocking (stocking on the spot), Full- line Stocking, Product Support (accompanying service), and Market Presence (Ackerman, 2007, p.66).

- *Warehouse Management Systems*

The development of work procedures goes hand in hand with training warehouse personnel. Most companies implement a WMS to standardize work procedure and encourage best practice. It is management's responsibility to see that all personnel understand and use these procedures.

In a mechanized warehouse, approximately 65% of personnel are employed in some facets of order selection. The two basic methods of order picking are individual and area selection (also known as batch selection). Using individual selection, one employee completes a customer's total order. This system is not widely used. Its primary application occurs when many small orders are selected for repack or consolidated shipment, such as e-commerce fulfillment. Under the more commonly used area selection system each employee is assigned responsibility for a specific portion of the warehouse. To complete a customer's order, several different selectors are required. Because each employee has a thorough knowledge of a specific selection area, less time is required to locate items (Jenkins, 2000, p.78).

Work procedures are also important for receiving and shipping. Established procedures for receiving and ensuring product entry into inventory records are critical. If pallets are used, the merchandise must be stacked in appropriate patterns to ensure maximum load stability and consistent case counts. Personnel working in shipping must have knowledge of trailer loading practices. In specific types of operations, particularly when merchandise changes ownership, items must be checked during loading. Work procedures are not restricted to floor personnel. Procedures must be established for administration and maintenance. Replenishment of warehouse inventory can cause operational problems if proper ordering procedures are lacking. Normally, there is limited interaction between buyers and warehouse personnel although such communication is improving with integrated supply chain management organizations. Buyers tend to purchase in quantities that afford the best price, and little attention is given to pallet compatible quantities or available warehouse space (Bolten, 2007, p.69).

Ideally, buyers should coordinate with warehouse staff personnel before commissioning large orders or introducing new products. The experience of some companies has forced management to require buyers to predetermine warehouse space assignment prior to ordering. Another potential problem is the quantity of cases ordered. The goal is to purchase in pallet-multiple quantities. For example, if a product is ideally stacked on pallets in a 50-case pattern, the buyer should order in multiples of 50. If an order is placed for 120 cases, upon arrival the cases will fill two pallets plus

20 on a third pallet. The extra 20 cases will require the warehouse cubic space typically used for a pallet of 50 and will require the same amount of materials handling capacity to move (Tien et al., 2019, p.61).

C. Inventory Component

The inventory requirements of a company are directly linked to the facility network and the desired level of customer service. Theoretically, a company could stock every item sold in every facility dedicated to servicing each customer. Few business operations can afford such a luxurious inventory commitment because the risk and total cost are prohibitive. The objective in inventory strategy is to achieve desired customer service with the minimum inventory commitment. Excessive inventory may compensate for deficiencies in basic design of a supply chain system but will ultimately result in total logistics cost higher than necessary. Supply chain strategies should be designed to maintain the lowest possible financial investment in inventory. The basic goal is to achieve maximum inventory turn while satisfying service commitments (Muller, 2003, p.101). Muller (2003) indicates that a sound inventory strategy is based on a combination of five aspects of selective deployment (Muller, 2003, p.105).

1. Core Customer Segmentation:

Enterprise that sells to a variety of different customers confronts uneven opportunity. Some customers are highly profitable and have outstanding growth potential while others do not. The profitability of customer's business depends upon the products purchased, volume, price, value-added services required and supplemental activities necessary to develop and maintain long term ongoing relationship. Because highly profitable customers constitute the core market of every enterprise, inventory strategies need to focus on them. The key to effective logistical segmentation rests in the inventory priorities dedicated to support core customers (Muller, 2003, p.105).

2. Product Profitability:

Most enterprises experience a substantial variance in the volume and profitability across product lines. If no restrictions are applied, a company may find that less than 20% of all products marketed account for more than 80% of total profit according to Pareto principle. Management staff must avoid such outcomes by implementing inventory strategies based on fine-line product classification. A realistic assessment of the incremental value added by stocking low-profit or low-

volume products is essential to avoiding excessive cost. For obvious reasons, an enterprise wants to offer high availability and consistent delivery of its most profitable products. High- level support of less profitable items, however, may be necessary to provide full-line service to core customers. The trap to avoid is high service performance on less profitable items that are typically purchased by fringe and non-core customers. Therefore, product line profitability must be considered when developing a selective inventory policy (Muller, 2003, p.105).

3. Transportation Integration:

The product stocking plan at a specific facility has a direct impact upon transportation performance. Most transportation rates are based on the volume and size of specific shipments. Thus, it may be sound strategy to stock a sufficient range or assortment of products at a warehouse to be able to arrange consolidated shipments. The corresponding savings in transportation may be more than to offset the increased cost of holding the inventory (Muller, 2003, p.105).

4. Time-Based Performance:

A company's degree of commitment to deliver products rapidly to meet a customer's inventory requirement is a major competitive factor. If products and materials can be delivered quickly, it may not be necessary for customers to maintain large inventories. Likewise, if retail stores can be replenished rapidly, less safety stock is required. The alternative to stockpiling and holding safety stock is to receive exact and timely inventory replenishment. While such time-based programs reduce customer inventory to absolute minimums, the savings must be balanced against other supply chain costs incurred because of the time-sensitive logistical process (Muller, 2003, p.106).

5. Competitive Performance:

Inventory strategies cannot be created in a competitive vacuum. A company is typically more desirable to do business with, than competitors, if it can promise and perform rapid and consistent delivery. Therefore, it may be necessary to position inventory in a specific warehouse to gain competitive advantage even if such commitment increases total cost. Selective inventory deployment policies may be essential to gain customer service advantage or to neutralize strength that competitors currently enjoy (Muller, 2003, p.106).

D. Transportation Component

- *The Concept of Transportation*

The role of transportation in supply chain and logistics operations has changed dramatically over the last decades. Prior to deregulation, the purchase of transportation service could be likened to buying a commodity such as coal or grain. There was very little difference between transportation service suppliers in terms of product, quality, and price. Transportation deregulation in 1980 introduced pricing flexibility and significantly increased the range of services transportation companies could provide customers. Today a wide range of transport alternatives are available to support product or raw material supply chain. For example, supply chain managers may integrate private own with for-hire transportation to reduce total logistics costs. Many for-hire carriers offer a wide variety of value- added services such as product sortation, sequencing, customized freight delivery and presentation. Technology has enhanced real time visibility of where freight is throughout the supply chain and when it will be delivered. Precise product delivery reduces inventory, storage, and materials handling. As such, the value of transportation has become greater than simply moving product from one location to another. Transportation and inventories are the primary cost-absorbing logistics activities. Transportation adds "place value" to products and services, whereas inventories add "time value". Transportation is essential because no modern company can operate without providing for the movement of its raw materials and/or finished products from one place to the next place of business process. This essential nature is underscored by the financial strains placed on many companies by so-called national disasters, such as a national railroad strike or independent truckers' refusal to move goods because of rate disputes. In these circumstances, markets cannot be served, and products back up in the supply chain pipelines to deteriorate or become obsolete. Supply chain is about creating value for customers and suppliers of the company, and value for the company's stakeholders. As mentioned above, value in supply chain is expressed in terms of time and place. Products and services have no value unless they are in the possession of customers when (time) and where (place) they wish to consume them. Good supply chain management views each activity in the supply chain as contributing to the process of adding value. If little value can be added, it is questionable whether the activity should exist. However, value is added when customers are willing to pay more for a product or service than the cost to place it in their hands. For many companies throughout the world, supply chain

management has become an increasingly important value-adding process for several reasons and transportation is one of the key supply chain value- adding activities (Mckeon, 2008, p.43).

- *Transportation Functionality*

Transportation is a very visible element of the supply chain. Consumers are accustomed to seeing trucks and trains transporting product or parked at business facilities. Few consumers fully understand just how dependent our economic system is upon economical and dependable transportation (Mckeon, 2008, p.45).

Tien et al. (2019) indicated that transportation enterprises provide two major services: Product Movement and Product Storage (Tien et al., 2019, p.88).

1. Product Movement:

Whether in the form of materials, components, work-in-process, or finished goods, the basic value provided by transportation is to move inventory to the next stage of the business process. The primary transportation value proposition is product movement up and down the supply chain. Transportation is vital to procurement, manufacturing, and market distribution. Transportation also plays a key role in reverse logistics. Without reliable transportation, most commercial activity could not function. Transportation consumes time, financial, and other resources. It uses time resources because product is generally inaccessible during the movement process. Product captive to the transport system is referred to as in-transit inventory. Naturally, when designing supply chain systems, managers strive to reduce in-transit inventory to minimum. Transportation also uses financial resources. Transportation cost results from driver labor, vehicle operation, capital invested in equipment and administration. In addition, cost results from product loss and damage. Transportation also uses environmental resources. In direct terms, transportation companies constitute largest consumers of fuel and oil. Indirectly, transportation impacts the environment through congestion, air pollution, and noise pollution (Tien et al., 2019, p.88).

2. Product Storage:

A less visible aspect of transportation is product storage. While a product is in a transportation vehicle, it is being stored. Transport vehicles can also be used for product storage at shipment origin or destination, but they are comparatively expensive storage facilities. Since the main value proposition of transportation is movement, a vehicle committed to storage is not otherwise

available for transport. A trade-off exists between using a transportation vehicle versus temporarily keeping products in a warehouse. If the inventory involved is scheduled to move within a few days to a different location, the cost of unloading, warehousing, and reloading the product may exceed the temporary charge of using the transportation vehicle for storage. Another form of temporary product storage is diversion. Diversion occurs when a shipment destination is changed while product is in transit. Traditionally, telephone was used to implement diversion strategies, but satellite communication between enterprise headquarters and vehicles allows more efficient diversion. While diversion is primarily used to improve logistical responsiveness, it also impacts transit storage. So, although costly, product storage in transportation vehicles may be justified from a total cost or performance perspective when loading or unloading costs, capacity constraints, and ability to extend lead times are considered (Tien et al., 2019, p.89).

- *Transportation Principles*

There are two fundamental economic principles that impact transportation efficiency: Economy of Scale and Economy of Distance as per Bowman (2001) indicated (Bowman, 2001, p.124).

1. Economies of Scale:

The cost per unit of weight decrease as the size of a shipment increases. For example, truckload shipments that utilize an entire vehicle's capacity have lower cost per pound than smaller shipments that utilize a limited portion of vehicle capacity. It is also generally true that larger capacity transportation vehicles such as rail and water are less costly per unit of weight than smaller capacity vehicles such as trucks and air. Transportation economies of scale exist because fixed cost associated with moving a load is allocated over the increased weight. Fixed costs include administration related to scheduling, cost of equipment, time to position vehicles for loading or unloading, and invoicing. Such costs are considered fixed because they do not vary with shipment size (Bowman, 2001, p.124).

2. Economy of Distance:

This refers to decreased transportation cost per unit of weight as distance increases. For example, a shipment of 1000 km will cost less to perform than two shipments of the same weight each moving 500 km. Transportation economy of distance is often referred to as the tapering principle. The rationale for distance economies is similar to economies of scale. Specifically, longer

distances allow fixed cost to be spread over more miles, resulting in lower per mile charges. These scaling principles are important when evaluating transportation alternatives. The goal from a transportation perspective is to maximize the size of the load and the distance being shipped while still meeting customer service expectations (Bowman, 2001, p.125).

2.3.3 Supply Chain Strategies and Logistics

According to Christopher (2003) the ultimate goal of strategy is "long-term, sustainable superior performance." Such superior performance now depends on the ability of a manufacturing organization to become a fully integrated partner within a supply chain context, thus all but requiring that manufacturing organizations adopt a supply chain strategy. Such supply chain strategies focus on how both internal and external business processes can be integrated and coordinated throughout the supply chain to better serve ultimate customers and consumers while enhancing the performance of the individual supply chain members. (Christopher, 2003, p.39)

Examples of business processes that must be integrated include manufacturing, purchasing, selling, logistics, and the delivery of real-time, seamless information to all supply chain partners. Managing at the supply chain level requires a new focus and new ways of managing. Manufacturing managers must learn to communicate, coordinate, and cooperate with supply chain partners (Green et al., 2008, p.319).

According to the "unionist" perspective on the relationship between supply chain management and logistics this perspective holds that supply chain management incorporates logistics as a key supply chain focused function (Fugate et al., 2010, p.69).

Organizational managers were asked to focus attention and resources directly on supply chain functions such as logistics to bolster the competitiveness of the supply chains. The managers are, however, ultimately judged on the marketing and financial performance of their organizations. Does a supply chain focus lead to improved logistics performance, which, in turn, results in improved organizational performance? (Green et al., 2008, p.320).

Logistics is an important component of supply chain management. The Council of Supply Chain Management Professionals defines logistics management as "part of Supply Chain Management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customer's requirements (Fugate et al., 2010, p.43).

Mansidao and Coelho (2014) identify logistics as "one of the largest costs involved in international trade" (Mansidao & Coelho, 2014, p.12).

(Srivastava, 2006) identify a new breed of logistics-related firms: logistics service providers that support internet supply chains. These logistics service providers help internet sellers integrate with the myriad of available logistics firms to fulfill customer orders more effectively and efficiently (Srivastava, 2006, p.17).

Logistics service providers establish relationships with both internet sellers and third-party logistics providers and integrate the selling and flow processes throughout the supply chain through the provision of what call "hub functionalities" (Srivastava, 2006, p.19).

Holmberg (2000) describes a similar role for fourth-party logistics providers in more traditional supply chain configurations such as those that link manufacturers with ultimate customers (Holmberg, 2000, p.847).

Gammelgaard and Larson (2001) discuss the importance of a supply chain focus on the part of transport logistics service providers as they function to link suppliers, manufacturers, sellers, and customers throughout the supply chain. They argue that transport logistics service providers must focus on supply chain performance in addition to organizational performance (Gammelgaard & Larson, 2001, p.27).

Fawcett and Clinton (1997) investigated the creation of customer value through the supply chain integration alternatives of collaborative closeness and operational excellence. They illustrated models identifying logistics as the unifying link intra-organizationally between the production and marketing functions and inter organizationally between suppliers and customers (Fawcett & Clinton, 1997, p.18).

Analyzing data from almost 2,000 firms in the USA, Australia, Japan, and Korea, they found that efficient supply chains exhibit operational excellence and responsive supply chains exhibit collaborative closeness. Japanese and Korean firms were more likely to integrate supply chains based on operational excellence, while US and Australian firms were more likely to integrate supply chains on the basis of collaborative closeness (Green et al., 2008, p.323).

2.3.4 Supply Chain Management versus Logistics

Cooper et al., (2007) stated that supply chain management relative to logistics can be viewed in four different ways: Traditionalist, Re-Labeling, Unionist and Intersections, some authors do not

distinguish between supply chain management and logistics, they just interchange the names (Cooper et al., 2007, p.26).

Christopher (2003) defines supply chain management as an extension of logistics. Logistics is essentially a planning orientation and framework that seeks to create a single plan for the flow of products and information through a business. Supply chain management builds upon this framework and seeks to achieve linkage and coordination between processes of the entities in the pipeline (Christopher, 2003, p.40).

Skjott-Larsen et al. (2008) also see supply chain as more than logistics. It includes the flow of material and products to customer and more than that, it also includes the organizations that are part of these processes crossing organizational boundaries to link their internal operations as part of this system. The scope of supply chain spans the entire set of organizations from procurement of material and product components to delivery of completed product to the first customer (Skjott-Larsen et al., 2008, p.43).

2.4 Competitive Advantage and Organizational Performance

2.4.1 Definitions of Competitive Advantage

Competitive advantage is defined as the "capability of an organization to create a defensible position over its competitors" (Li et al., 2006, p.111).

Tracey et al. (1999) argues that competitive advantage comprises of distinctive competencies that sets an organization apart from competitors, thus giving them an edge in the marketplace. They further add that it is an outcome of critical management decisions (Tracey et al., 1999, p.412).

Competitive advantage traditionally involved the choice regarding the markets in which a firm would compete, defending market share in clearly defined segments using price and product performance attributes (Day, 2000, p.24).

Today, however, competition is considered a "war of movement" that depends on anticipating and quickly responding to changing market needs (Stalk et al., 1992, p.65).

Competitive advantage emerges from the creation of superior competencies that are leveraged to create customer value and achieve cost and/or differentiation advantages, resulting in market share and profitability performance. Sustaining competitive advantage requires that firms set up barriers that make imitation difficult through continual investment to improve the advantage, making this a long-run cyclical process (Day, 2000, p.26).

Porter's approach to competitive advantage centers on a firm's ability to be a low-cost producer in its industry, or to be unique in its industry in some aspects that are popularly valued by customers (Porter, 1991, p.95).

Most managers agree that cost and quality will continue to remain the competitive advantage dimensions of a firm (Dsouza & Williams, 2000, p.579).

Wheelwright (1978) suggests cost, quality, dependability, and speed of delivery as some of the critical competitive priorities for manufacturing (Wheelwright, 1978, p.57).

There is widespread acceptance of time to market as a source of competitive advantage (Holweg, 2005, p.99).

Price/cost, quality, delivery dependability, and time to market have been consistently identified as important competitive capabilities (Vokurka et al., 2002, p.14).

'Time' has been argued to be a dimension of competitive advantage in other research contributions (Zhang, 2001, p.13).

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In a research framework, Koufteros et al. (2002) describe the following five dimensions of competitive capabilities: competitive pricing, premium pricing, value-to-customer quality, dependable delivery, and product innovation. These dimensions were further described and utilized in other contributions as well (Li et al. 2006). Based on these studies, the five dimensions of competitive advantage construct used in this study are price/cost, quality, and time to market (Koufteros et al., 2002, p.256).

Competitive advantage has been operationalized in the existing literature and the measures have been adopted in this study with minor modifications (Zhang, 2001, p.15).

2.4.2 Dimensions of the Competitive Advantage

Based on the study of Koufteros (2002) and Li et al. (2006) the competitive capability has the following five dimensions:

1. Price/Cost:

"The ability of an organization to compete against major competitors based on low price" (Li et al., 2006, p. 120).

For every company, the selling price of a product not only serves as a determinant of the number of sales and profits, but also plays an important role in building competitive power with other companies. Therefore, in determining product prices, in addition to paying attention to the cost of product procurement, companies also should not ignore the consequences of costs incurred by the procurement of something else to meet customer satisfaction. Besides that, companies are also required to pay attention to price competition factors prevailing in the market (Li et al., 2006, p. 121).

2. Quality:

"The ability of an organization to offer product quality and performance that creates higher value for customers" (Koufteros, 2002, p.256).

Quality is a factor contained in a product that causes the product to be valued according to what purpose the product is produced. In a manufacturing company, the term quality is defined as the factors contained in a product which results in the product being in accordance with the purpose for which the product is intended (Li et al., 2006, p. 123).

According to Koufteros (2002), quality is defined as the consistency of increase or improvement and decrease in variations in the characteristics of a product (goods or services) produced to meet

the needs that have been specified in order to increase customer satisfaction (Koufteros, 2002, p.258).

3. Delivery Dependability:

"The ability of an organization to provide on time the type and volume of product required by customer(s)" (Li et al., 2006, p. 120).

Delivery dependability is used to monitor suppliers' performance in terms of delivering the product required by customers on time, orders delivered complete and with the best quality possible (Koufteros, 2002, p.259).

Delivery time can be a source of company competitive advantage when the company is able to reduce the delivery time of consumer orders or reduce the time-of-service provision to consumers (Li et al., 2006, p. 121).

4. Product Innovation:

"The ability of an organization to introduce new products and features in the marketplace" (Koufteros, 2002, p.256).

The wider the market competition, the tighter competition between companies where companies continue to emerge with new innovations. Products must remain innovative in order to survive in the market. Innovative products can increase the competitive advantage of new products themselves for the company. Innovation can be created through product development. Where product development is done by improving the product such as creating new functions or increasing the durability of a product. Innovative products are able to compete in the global era and still favor competitive advantages in order to remain competitive in the global era and products can last long, not only seasonally (Cooper et al., 2007, p.16).

5. Time to Market:

"The ability of an organization to introduce new products faster than major competitors" (Li et al., 2006, p. 120).

Time to market is the extent to which a company or organization is able to launch and introduce new products faster than its competitors. A company that is able to launch a new product rather than a competitor can attract the market's attention first as a product that does not yet exist everywhere is already available in a company, so it is likely to seize the market ahead of the

competition. Companies must continue to plan strategies to be able to move faster and superior to create maximum competitive advantage (Koufteros, 2002, p.259).

2.4.3 Competitive Advantage from Successful Supply Chains

If the supply chains are analyzed from a resource-based view, the key question is whether the characteristics are rare, valuable, and difficult to imitate. If these strategic resources are available for only one company at the markets, this company has competitive advantage over its competitors (Ketchen, 2004, p.51).

By coordinating the activities, a company can gain competitive advantages. Another way to gain competitive advantages is to optimize one or more activities. However, a consideration has to be taken so that optimization does not end in optimizing one function at the expense of the others (Lumsden et al., 1998, p.96).

Like earlier described, Porter (1985) argues that competitive advantage is gained by being the lowest cost-competitor or by differentiating (Porter, 1985, p.15).

However, within the supply chain domain, competitive advantage is gained by two facts: reducing costs and increasing responsiveness (agility) to customer's needs (Martin & Grbac, 2003, p.25).

If the company strives to meaningful cost reductions, more efforts on cross-firm co-operation, co-ordination, collaboration, and integration are required (Flint, 2004, p.45).

As the supply chain has a common goal to satisfy the needs of end customers, global SCM has to understand the service needs of customers in locations spread all over the world. The supply chain strategies have to be prioritized differently when market conditions change (Ekenstedt, 2004, p.26).

Ahrens (1992) argues also that the internationalization of fast-growth companies needs strategic logistical solutions (Ahrens, 1992, p.17).

Closs and Mollenkopf (2004) have distinguished characteristics of successful supply chains of today, which can achieve a common goal to gain competitive advantage (Closs & Mollenkopf, 2004, p.37).

2.4.4 Organizational Performance

Organizational performance refers to how well an organization achieves its market- oriented goals as well as its financial goals (Yamin & Mavondo, 2009, p.56).

The short-term objectives of supply chain management are primarily to increase productivity and reduce inventory and cycle time, while long-term objectives are to increase market share and profits for all members of the supply chain (Tan, 2001, p.12).

Financial metrics have served as a tool for comparing organizations and evaluating an organization's behavior over time (Holmberg, 2000, p.92), any organizational initiative, including supply chain management, should ultimately lead to enhanced organizational performance.

A number of prior studies have measured organizational performance using both financial and market criteria, including return on investment (ROI), market share, profit margin on sales, the growth of ROI, the growth of sales, the growth of market share, and overall competitive position represented by constructs like, Price/Cost. It is the ability of an organization to compete against major competitors based on low price and quality, the ability of an organization to offer product quality and performance that creates higher value for customers' delivery dependability. It includes the ability of an organization to provide on time the type and volume of product required by customers (Li, 2006, p.107).

According to Karamat (2013), organizational performance means the "transformation of inputs into outputs for achieving certain outcomes. With regard to its content, performance informs about the relation between minimal and effective cost (economy), between effective cost and realized output (efficiency) and between output and achieved outcome (effectiveness)". There are various ways to understand organization performance but, in this thesis, it has been judged upon the growth of the company and sales performance which lead towards the growth. Sales performance can be explained as all the activities or investment carried out in the firm in the given period of time. It can be measured by total amount of revenue collected for the goods sold. Growth revenue defines as total amount of money collected by the company for the goods they sold in a specific time and this amount is calculated before any expenses are subtracted. Effectiveness of the organization depends on the three basics performance determinants (Karamat, 2013, p.20).

2.4.5 Measurement of Organizational Performance

Measuring and analysis of organizational learning has become widely popular and play a very important role in the success of the organization. Lot of work has been done on this. The performance is usually evaluated by calculating the values of qualitative and quantitative performance indicators like profit, cost, and clients. It is quite important for a company to determine the relevant indicators how they relate to the company goals and their dependence on the performed activities. Currently lot of managers recognize this and put the necessary effort to define the company goals, performance indicators and evaluate them. However practically such analysis is done in an informal way and will benefit more from the systematic approach. The initial step towards an improvement in this area is to make explicit the available knowledge on performance indicators and how they are related. In order to use this knowledge in a modern framework for organization modeling it is necessary to validate the concept of a performance indicator together with its characteristics, relationships to other performance indicators and relations to other formalized concepts such as goals, processes, and roles. This will not only contribute to the design and analysis of organizations and the evaluation of their performance but will also enable reuse, exchange and alignment of knowledge and activities between organizations (for example supply chains). "Managers must stimulate innovation in the core strategy, Business, Model, processes, policies and productivity" (Karamat, 2013, p.23).

A company can easily measure its growth by some new metrics called momentum indicators. One of the most important indicators is revenue margin. Revenue margin is the profit from revenue and is only the source of operating profit. An unsatisfactory trend in revenue margin shows that company's market position as compared to competitors is not strong. Along with them there are other specific momentum indicators both quantitative and qualitative necessary to create a picture of things if working accurately or not. These indicators are used to measure the three drivers of performance market position strength, organizational vitality, and productivity gain. They are also measuring the outcomes financial performance and stake holder value produced. According to the research life cycle model is found which shows seven different stages of the organizational growth in this model growth is basically shown as revenue (for profit) or budget (not for profit). Basically, organization is said to have a successful transition if its infrastructure has developed and supports the size successfully otherwise if it does not comply with the size the organization would face growing pains (Karamat, 2013, p.24).

2.4.6 Supply Chain Management Practices and Organizational Performance

SCM practices impact not only overall organizational performance, but also competitive advantage of an organization. They are expected to improve an organization's competitive advantage through price/cost, quality, delivery dependability, time to market, and product innovation (Yamin & Mavondo, 2009, p.59).

Prior studies have indicated that the various components of SCM practices (such as strategic supplier partnership) have an impact on various aspects of competitive advantage (such as price/cost). For example, strategic supplier partnership can improve supplier performance, reduce time to market and increase the level of customer responsiveness and satisfaction (Li, 2006, p.114). Information sharing leads to high levels of supply chain integration by enabling organizations to make dependable delivery and introduce products to the market quickly. Information sharing and information quality contribute positively to customer satisfaction and partnership quality (Li, 2006, p.122).

To sum up, this chapter discussed the theoretical foundation of various constructs used in this research: supply chain management, logistics management, competitive advantage, and organizational performance. In the next chapter, we present the research framework that describes the relationships between these constructs along with the development of research hypotheses.

3. DATA AND METHODS

The main purpose of the research methodology is to explain how the research is accomplished, what knowledge is required, what information is needed and how information is collected. Research methodology consists of Research Design and Data Analysis, Population and Sampling, Response Rate, Data Type and Collection Techniques, Method of Data Analysis, Model Specification, Tests of Normality, Reliability and Validity Analysis, Internal Consistency Validity, Multicollinearity Test, Levene's test, Correlation Analysis, Demographic Analysis of Respondents, Descriptive Analysis.

3.1 Research Design and Data Analysis

3.1.1 Research Design

Designing a study helps the researcher to plan and implement the study in a way that will help the researcher to obtain intended results, thus increasing the chances of obtaining information that could be associated with the real situation (Burns & Grove, 2001, p.62).

This study is applied research which follows both descriptive and explanatory research designs in order to address the aforementioned objectives. It is conducted on to test the impact of supply chain management and logistics on the competitive advantage and organizational performance in four- and five-stars hotels in Syria. The data for the study was quantitative in nature which was collected from primary sources. The researcher used the Cross-sectional field survey method to assess the relationship between supply chain management, logistics, competitive advantage, and organizational performance. In the cross-sectional field survey, independent and dependent variables were measured at the same point in time by using a single questionnaire. In addition, the study is also said to be associational in design because there is the intent to establish the relationship between independent and dependent variable of the study. The researcher selected the sample from the target population by using the comprehensive survey method. The researcher used descriptive design in order to identify the characteristics of supply chain management, logistics, competitive advantage, and organizational performance in the case hotels. Correlational research aims to ascertain if there is a significant association between two variables (Reid, 2007, p.52).

Hence, after the data were collected, the researcher analyzed the data by using correlation, particularly Pearson's coefficient of correlation, and regression analysis technique to show the effect of independent variables on the dependent variable.

3.1.2 Population and Sampling

According to Reid (2007), target population is said to be a specified group of people or object for which questions can be asked or observation made to develop required data structures and information (Reid, 2007, p.57).

The target populations of this study were the staff employed in the departments of supply chain management in the case hotels, working on clerical or administrative roles.

Those employees were chosen as a sample for this study because they are an excellent basis for the questionnaire for several reasons. They have firsthand, day-to-day experience with the supply chain processes, from procurement to distribution. Their insights can offer detailed and exact information about the challenges, successes, and potential areas for improvement within the supply chain, they also possess operational knowledge about how the supply chain functions within the specific context of hospitality.

As individuals directly involved in the supply chain operations, their input can reflect practical realities and ground-level issues. The employees' perspectives are vital. Their feedback on the feasibility and potential obstacles to supply chain management and logistics can ensure the practicality and effectiveness of it.

Involving employees in the questionnaire ensures a comprehensive understanding of the intricacies and practicalities of supply chain management and logistics within the specific context of the hospitality industry in Syria. Their insights can enrich the study and provide a solid foundation for recommendations and improvements.

According to the case hotels there are 120 employees including managerial and non-managerial positions in the departments of supply chain management located in the case hotels.

The researcher used the comprehensive survey method to identify the practices of supply chain management & logistics.

According to the comprehensive survey method, the sample size for the study is 120 respondents, as per the following:

Table 2: Population and Sample Size

Hotel	Classification	Number of Staff working at SCM Departments
Four Seasons Hotel	5 Stars	18
Sheraton	5 Stars	16
Dama Rose	5 Stars	17
Cham Palace	5 Stars	17
Armetage	4 Stars	12
Omaya	4 Stars	14
Blue Tower	4 Stars	13
Fardous Tower	4 Stars	13
Total		**120**

Prepared by the researcher

3.1.3 Response Rate

A total of (120) questionnaires were distributed to the employees and (118) questionnaires were obtained, (2) questionnaires were not taken into consideration because one of them is returned empty and the other one was not completed. Based on these, the total number of the analyzed questionnaires is (116) and the response rate is (97%) as per the following:

Table 3: Response Rate

Distributed	Obtained	Empty	Not completed	Analyzed	Response Rate
120	118	1	1	116	97%

Prepared by the researcher

3.1.4 Data Type and Collection Techniques

This study used both primary and secondary sources to undertake the study. Primary data were collected from respondents and secondary data from dissertations, reports and books with relevant literature and the internet. Primary data were used for the purposes of identifying the impact of supply chain management and logistics on the competitive advantage and organizational performance. The researcher collected primary data from employees.

In order to achieve the objectives of this study, the researcher used quantitative research methods. The study used questionnaire as a data collection instrument that helps to cover larger target groups than the interview, given the quality and chance of no response.

The questionnaire has three parts, the first part explains the purpose of the questionnaire; the second part comprises of profile of respondents while the third part comprises of research

questions. The questionnaire was prepared using (5) Point Likert-Scale approaches (i.e., from Strongly Disagree to Strongly Agree). In order to encourage respondents and maximize the chances of obtaining adequate responses, the length of the questionnaire was taken into consideration. Accordingly, respondents were asked to indicate their level of agreement on 5-point Likert scale with the following ratings; Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5) as per the following:

Table 4: Response Points & Ranges

Response	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Response Point	1	2	3	4	5
Response Range	1 - 1.8	1.81 - 2.6	2.61 - 3.4	3.41 - 4.2	4.21 - 5

Prepared by the researcher

3.1.5 Method of Data Analysis

After the data were collected both descriptive and inferential statistical techniques were employed to analyze the data. The data were analyzed using SPSS version (20). The statistical tools were aligned with the objectives of the research. Inferential statistics is particularly the Pearson's correlation were used to show the relationship and the strength/degree as well as direction of associations between variables. The other inferential statistics used were regression analysis that shows interdependence of independent variables and dependent variable. Thus, both the strength of the relationship between variables and the influence of independent on dependent variable and statistical significance were assessed.

3.1.6 Model Specification

The researcher used ordinary least square (OLS) regression method to analyze the result. This regression analyses were conducted to know by how much the independent variable explains the dependent variable. The regression was conducted between supply chain management and logistics as independent variables, and competitive advantage and organizational performance as dependent variables to measure the opinion of the respondents. The result of the regression analysis is presented as follows.

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n + \varepsilon_i$

Where:

Y is dependent variable which is explained by the independent variables

β0 is constant

β1… βn are the coefficient of the independent variables X1 to Xn.

εi is an error term

Specifically, model for this study can be expressed as follows:

CA + OP = β0 + β1 SCM + β2 LOG + εi

Where:

CA= Competitive Advantage

OP= Organizational Performance

SCM= Supply Chain Management

LOG= Logistics

3.1.7 Tests of Normality

A normality test is used to determine whether sample data has been drawn from a normally distributed population, as shown in the table (5) below, the (Sig) values in (Kolmogorov-Smirnova) for all items are greater than (0.05), and the (Sig) values in (Shapiro-Wilk) for all items are greater than (0.05), therefore, the variables are normally distributed.

Table 5: Tests of Normality

Construct	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Supply Chain Management	.163	116	.201	.960	116	.116
Logistics	.122	116	.220	.965	116	.181
Competitive Advantage	.225	116	.291	.871	116	.113
Organizational Performance	.213	116	.274	.819	116	.119

Source: SPSS outputs

3.1.8 Reliability and Validity Analysis

A. Validity

Validity is defined as how much any measuring instrument measures what it is intended to measure. Bryman and Bell (2007) also suggested that the important issue of measurement validity relates to whether measures of concepts really measure the concept. Validity refers to the issue of whether an indicator (or set of indicators) that is devised to gauge a concept really measures that concept. Several ways of establishing validity are content validity; convergent validity concurrent; predictive validity; construct validity; and convergent validity (Bryman & Bell, 2007, p.77).

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This study addressed content validity through the review of literature and adapting instruments used in previous research.

The questionnaire was reviewed by experts from University of Sopron and University of Damascus, whose knowledge and experiences were sufficient in this scope and to make sure that each item is measuring exactly what is intended to be measured. Furthermore, a pilot study was conducted on 30 respondents to test the research instrument before distributing it to the whole sample. Upon the feedback of the experts and the pilot study the questionnaire had been amended taking into consideration their suggestions, comments, and directions to achieve the validity of the instrument.

B. Reliability Test

The level of reliability of the instrument that is the consistency of the variables is checked with the Cronbach's alpha statistics. Cronbach's alpha is an index of reliability associated with the variation accounted for by the true score of the underlying construct.

Cronbach's Alpha can only be measured for variables which have more than one measurement question. Bryman and Bell (2007) have stated that (0.5) is a sufficient value, while (0.7) is a more reasonable Cronbach's alpha. The results were extracted presented in the following table and are more than (0.7) (Bryman & Bell, 2007, p.81).

Table 6: Reliability Analysis

Construct	Number of Item	Cronbach's alpha
Supply Chain Management	5	0.712
Logistics	5	0.786
Competitive Advantage	5	0.742
Organizational Performance	5	0.753

Source: SPSS outputs

3.1.9 Internal Consistency Validity

This is to measure the consistency and interrelationship of the items in the questionnaire with the construct to which they belong, it is a degree to measure that each item reflects what it is proposed to measure and does not measure anything else. Accordingly, we calculated the Pearson correlation coefficient between the degree of each of the item and the total degree of the construct to which this item belongs.

A. For Supply Chain Management Construct

As shown in the table (7) below, the values of Pearson correlation for all items are between (0.515 to 0.773), that implies that all items are positively significant at significance level of (1%).

Table 7: Pearson Correlation for Supply Chain Management Items

Item	Pearson Correlation	Sig. (2-tailed)
The hotel seeks to build long relationships with its suppliers.	.691**	0.001
The hotel involves its suppliers in planning and development.	.770**	0.001
The relationships with the suppliers are based on trust, commitment and mutual benefits.	.656**	0.001
The hotel continuously measures and evaluates the supplier's satisfaction.	.773**	0.001
The hotel informs the suppliers in advance of changing needs.	.515**	0.001

Source: SPSS outputs

B. For Logistics Construct

As shown in the table (8) below, the values of Pearson correlation for all items are between (0.700 to 0.776), that implies that all items are positively significant at significance level of (1%).

Table 8: Pearson Correlation for Logistics Items

Item	Pearson Correlation	Sig. (2-tailed)
The hotel purchases the required materials through tenders and quotations.	.745**	0.001
The hotel offers a fair competition to the suppliers and chooses the best offers.	.700**	0.001
The hotel bear losses due to improper storing.	.751**	0.001
The hotel purchases the required materials in a timely manner to reduce the warehousing costs.	.726**	0.001
The hotel purchases the required materials in a timely manner to ensure the continuity of the service.	.776**	0.001

Source: SPSS outputs

C. For Competitive Advantage Construct

As shown in the table (9) below, the values of Pearson correlation for all items are between (0.597 to 0.768), that implies that all items are positively significant at significance level of (1%).

Table 9: Pearson Correlation for Competitive Advantage Items

Item	Pearson Correlation	Sig. (2-tailed)
The cost of services provided by the hotel is less expensive than the competitors.	.737**	0.001
The hotel uses research and development to reduce the cost of services.	.767**	0.001
The hotel seeks to reduce the defective rate in the services.	.768**	0.001
The hotel seeks to make its services conform to the international specifications and standards.	.597**	0.001
The hotel delivers the orders to its clients on time.	.636**	0.001

Source: SPSS outputs

D. For Organizational Performance Construct

As shown in the table (10) below, the values of Pearson correlation for all items are between (0.556 to 0.757), that implies that all items are positively significant at significance level of (1%).

Table 10: Pearson Correlation for Organizational Performance Items

Item	Pearson Correlation	Sig. (2-tailed)
Our hotel is expanding its market share.	.757**	0.001
Our hotel has a growing return on investment.	.727**	0.001
Our hotel achieves its market-oriented goals.	.743**	0.001
Our hotel is improving its overall competitive position.	.556**	0.001
Our hotel has a growing profit margin on sales.	.686**	0.001

Source: SPSS outputs

3.1.10 Multicollinearity Test

According to Bryman and Bell (2007), there two major approaches that utilized in order to identify the presence of multi-collinearity among independent variables (Bryman & Bell, 2007, p.85). These approaches are calculation of tolerance test and variance inflation factor (VIF). Multi Collinearity exists when tolerance level is less than or equal to (0.1) and all VIF is 1/Tolerance values are above (10). The results presented for multi-Collinearity in table (11) below indicate that there is no multi-Collinearity among the study independent variables because the tolerance is above (0.1) and VIF is well below (10). Thus, the measures selected for assessing independent variables in this study, do not reach multicollinearity.

Table 11: Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	**VIF**
(Constant)		
Supply Chain Management	0.609	1.458
Logistics	0.604	1.657

a. Dependent Variable: Competitive Advantage & Organizational Performance
Source: SPSS outputs

3.1.11 Levene's test for Homogeneity of Variances

Levene's test is used to test if samples have equal variances, as indicated in the table (12) the Sig-value for the Levene's test is greater than (0.05) for all items, then the variances are not significantly different from each other, and the homogeneity assumption of the variance is met.

Table 12: Levene's test for Homogeneity of Variances

Construct	Levene's Statistic	df1	df2	Sig.
Supply Chain Management	1.052	1	114	.353
Logistics	1.165	1	114	.286
Competitive Advantage	1.155	1	114	.179
Organizational Performance	1.045	1	114	.351

Source: SPSS outputs

3.1.12 Correlation Analysis

The researcher used correlation analysis to identify relationship between independent variables, supply chain management and logistics and dependent variable, competitive advantage. This analysis included the relationship between variables, their correlation coefficients and their relationship strength. The study uses Pearson correlation method to conduct correlation analysis. Its coefficient is the most common tool to measure the relationship between variables. It measures the linear dependence between two variables. The coefficient is a value between (+1) and (-1) inclusive.

A value of (1) or closer to 1 implies that there is a strong direct relationship between the variables being correlated i.e., the first variable increases in the same proportion as the second one increases.

A value of (-1) or closer to -1 implies that there is an inverse relationship between the variables being correlated i.e., the first variable decreases in the same proportion as the second one increases. A value of 0 implies that there is no linear correlation between the variables.

The other values are a mean term between these results, values of ($\pm$ 0.1) represent a small effect, ($\pm$ 0.3) is a medium effect and ($\pm$ 0.5) is a strong effect.

A. Correlation Analysis between Supply Chain Management and Logistics

As indicated in the table (13) the Pearson correlation test was conducted between supply chain management and logistics, the results shows that supply chain management is positively and significantly correlated with logistics. In other words, supply chain management and logistics have a genuine, strong, and positive relationship with correlation coefficient of (0.630) (r=0.630) and significance value less than (0.01). This implies that supply chain management is positively contributing to the logistics and there is a genuine positive relationship between supply chain management and logistics.

Table 13: Correlation Analysis between Supply Chain Management and Logistics

Correlations				
Construct			**Supply Chain Management**	**Logistics**
Supply Chain Management	Pearson Correlation		1	.630[**]
	Sig. (2-tailed)			.000
	N		116	116
Logistics	Pearson Correlation		.630[**]	1
	Sig. (2-tailed)		.000	
	N		116	116

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS outputs

B. Correlation Analysis between Supply Chain Management and Competitive Advantage

As indicated in the table (14) the Pearson correlation test was conducted between supply chain management and competitive advantage, the results shows that supply chain management is positively and significantly correlated with competitive advantage. In other words, supply chain management and competitive advantage have a genuine, strong, and positive relationship with correlation coefficient of (0.583) (r=0.583) and significance value less than (0.01). This implies that supply chain management is positively contributing to the competitive advantage and there is a genuine positive relationship between supply chain management and competitive advantage.

Table 14: Correlation Analysis between Supply Chain Management and Competitive Advantage

Correlations			
Construct		**Supply Chain Management**	**Competitive Advantage**
Supply Chain Management	Pearson Correlation	1	.583**
	Sig. (2-tailed)		.000
	N	116	116
Competitive Advantage	Pearson Correlation	.583**	1
	Sig. (2-tailed)	.000	
	N	116	116

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS outputs

C. Correlation Analysis between Logistics and Competitive Advantage

As indicated in the table (15) the Pearson correlation test was conducted between logistics and competitive advantage, the results shows that logistics is positively and significantly correlated with competitive advantage. In other words, logistics and competitive advantage have a genuine, strong, and positive relationship with correlation coefficient of (0.574) (r=0.574) and significance value less than (0.01). This implies that logistics is positively contributing to the competitive advantage and there is a genuine positive relationship between logistics and competitive advantage.

Table 15: Correlation Analysis between Logistics and Competitive Advantage

Correlations			
Construct		**Logistics**	**Competitive Advantage**
Logistics	Pearson Correlation	1	.574[**]
	Sig. (2-tailed)		.000
	N	116	116
Competitive Advantage	Pearson Correlation	.574[**]	1
	Sig. (2-tailed)	.000	
	N	116	116

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS outputs

D. Correlation Analysis between Supply Chain Management and Organizational Performance

As indicated in the table (16) the Pearson correlation test was conducted between supply chain management and organizational performance, the results shows that supply chain management is positively and significantly correlated with organizational performance. In other words, supply chain management and organizational performance have a genuine, strong, and positive relationship with correlation coefficient of (0.564) (r=0.564) and significance value less than (0.01). This implies that supply chain management is positively contributing to the organizational performance and there is a genuine positive relationship between supply chain management and organizational performance.

Table 16: Correlation Analysis between Supply Chain Management and Organizational Performance

Correlations			
Construct		**Supply Chain Management**	**Organizational Performance**
Supply Chain Management	Pearson Correlation	1	.564**
	Sig. (2-tailed)		.000
	N	116	116
Organizational Performance	Pearson Correlation	.564**	1
	Sig. (2-tailed)	.000	
	N	116	116

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS outputs

E. Correlation Analysis between Logistics and Organizational Performance

As indicated in the table (17) the Pearson correlation test was conducted between logistics and organizational performance, the results shows that logistics is positively and significantly correlated with organizational performance. In other words, logistics and organizational performance have a genuine, strong, and positive relationship with correlation coefficient of (0.528) (r=0.528) and significance value less than (0.01). This implies that logistics is positively contributing to the organizational performance and there is a genuine positive relationship between logistics and organizational performance.

Table 17: Correlation Analysis between Logistics and Organizational Performance

Correlations			
Construct		**Logistics**	**Organizational Performance**
Logistics	Pearson Correlation	1	.528**
	Sig. (2-tailed)		.000
	N	116	116
Organizational Performance	Pearson Correlation	.528**	1
	Sig. (2-tailed)	.000	
	N	116	116

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS outputs

3.2 Demographic Analysis of Respondents

The Demographic Analysis of Respondents conducted in terms of Gender, Age, Occupational Level, Years of Employment, Qualifications and Hotel Classification.

3.2.1 Gender

Table (18) below presents gender of respondents with their respective frequencies and percentages.

Table 18: Analysis of Gender of respondents

Gender	Frequency	Percent
Male	60	51.72%
Female	56	48.28%
Total	116	100.00%

Source: SPSS outputs

Total of (116) respondents participated in the study, (51.72%) of the respondents were male with frequency (60) and the remaining (48.28%) of the respondents were females with frequency (56), this implies that large proportion of employees in supply chain management department are male.
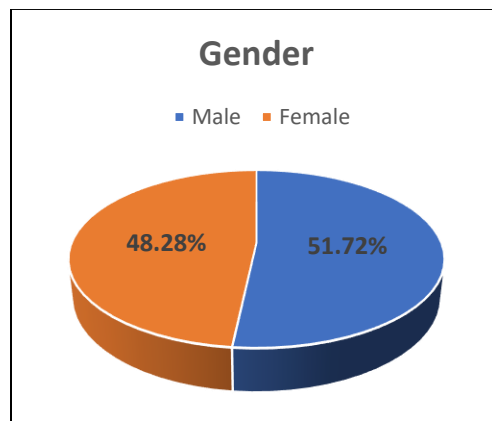
Figure 2: Frequencies of Gender
Prepared by the researcher

3.2.2 Age

Age categories of respondents as shown in table (19) include three categories, less than (25) years, between (25) and (45), and more than (45).

Table 19: Analysis of Age of respondents

Age	Frequency	Percent
Less than 25 years	12	10.34%
Between 25 - 45 years	74	63.79%
More Than 45 years	30	25.86%
Total	116	100.00%

Source: SPSS outputs

Largest number of respondents was in the category between (25) and (45) years and followed by age category of more than (45) years which comprises (25.86%) of the respondents, (10.34%) of the respondents were with age less than (25) years, (63.79%) of the respondents are in an age category of years between (25) and (45). This shows that (74.13%) of the respondents are at age of less than (45) years. This is an indication that majority of employees in supply chain management departments are at younger age.
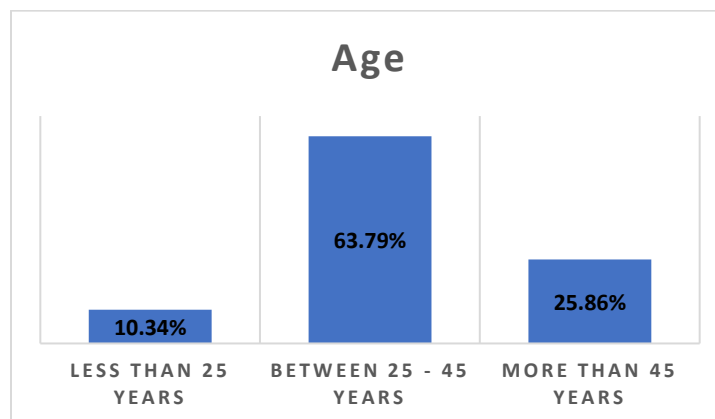
Figure 3: Frequencies of Age
Prepared by the researcher

3.2.3 Occupational Level

Occupational levels of respondents as shown in table (20) include three levels, Assistant, Officer and Manager.

Table 20: Analysis of Occupational Level of respondents

Occupational Level	Frequency	Percent
Assistant	73	62.93%
Officer	29	25.00%
Manager	14	12.07%
Total	116	100.00%

Source: SPSS outputs

Total of (116) respondents participated in the study, (73) of the respondents were assistants with a percentage of (62.93%) which is the lowest level in the management, (29) of the respondents were officers with a percentage of (25.00%) which is lower than the level of assistants because they are supervised by the officers, and (14) of the respondents were managers with a percentage of (12.07%) which is lower than the level of officers because managers supervise the officers.
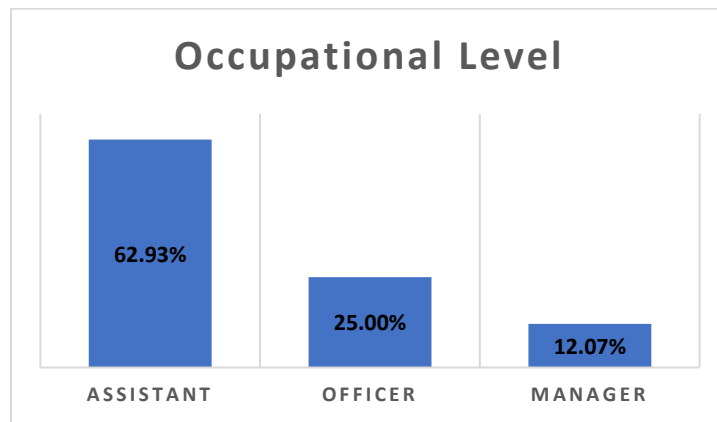
Figure 4: Frequencies of Occupational Level
Prepared by the researcher

3.2.4 Years of Employment

Years of employment of respondents as shown in table (21) include three categories, less than (5) years, between (5) and (10), and more than (10).

Table 21: Analysis of Years of Employment of respondents

Years of Employment	Frequency	Percent
Less than 5 years	35	30.17%
Between 5 - 10 years	70	60.43%
More Than 10 years	11	9.48%
Total	116	100.00%

Source: SPSS outputs

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Total of (116) respondents participated in the study, (35) of the respondents were employed for less than (5) years with a percentage of (30.17%), (70) of the respondents were employed between (5) to (10) years with a percentage of (60.43%), and (11) of the respondents were employed for more than (10) years with a percentage of (09.48%). This shows that (69.91%) of the respondents were employed for more than (5) years, this implies the fact that most of the respondents have sufficient knowledge and experience about their hotels and the subject matter of the study.
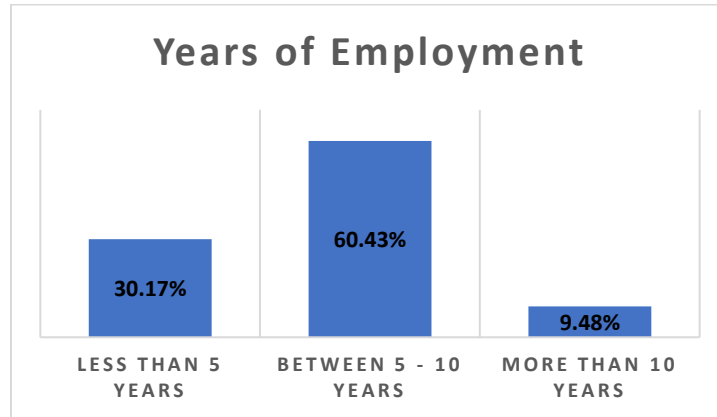
Figure 5: Frequencies of Years of Employment
Prepared by the researcher

3.2.5 Qualifications

Qualifications of respondents as shown in table (22) include three levels, Bachelor's degree, Master's degree and PhD.

Table 22: Analysis of Qualifications of respondents

Qualifications	Frequency	Percent
Bachelor's degree	89	76.72%
Master's Degree	24	20.69%
PhD	3	2.59%
Total	116	100.00%

Source: SPSS outputs

Total of (116) respondents participated in the study, (89) of the respondents hold a Bachelor's degree with a percentage of (76.72%), (24) of the respondents hold a Master degree with a percentage of (20.69%), (3) of the respondents hold a PhD degree with a percentage of (2.59%), this implies the fact that all of the respondents have an educated background and provide relevant

and reliable information needed for the study and they are fit in line with the response of the questionnaire.
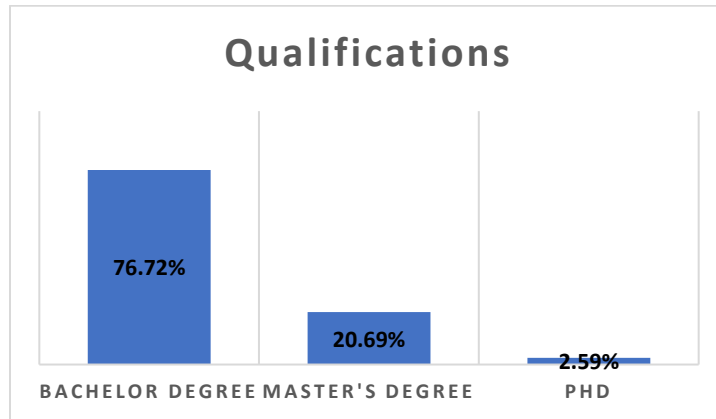
Figure 6: Frequencies of Qualifications
Prepared by the researcher

3.2.6 Hotel Classification

This study has taken into consideration two classifications of hotels four and five stars, as shown in table (23) below.

Table 23: Analysis of Hotel Classification of respondents

Classification	Frequency	Percent
Four Stars	66	56.90%
Five Stars	50	43.10%
Total	116	100.00%

Source: SPSS outputs

Total of (116) respondents participated in the study, (66) of the respondents are working in four stars hotel with a percentage of (56.90%) and (50) of the respondents are working in five stars hotel with a percentage of (43.10%).
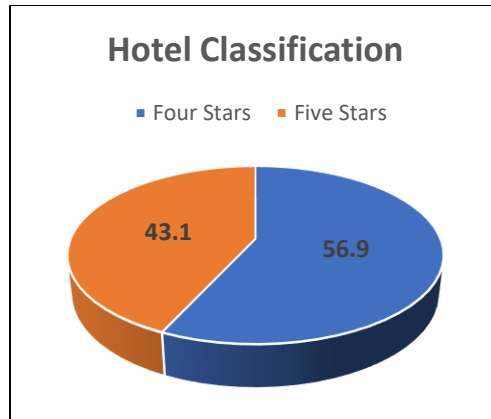
Figure 7: Frequencies of Hotel Classification
Prepared by the researcher

3.3 Descriptive Analysis

The descriptive analysis was intended to identify the opinions of the respondents about the concepts of supply chain management, logistics, competitive advantage, and organizational performance in hotels. The researcher analyzed the responses by using mean and standard deviation and presented by the following tables.

A mean value is in the range from (1 to 1.8) means that the respondents strongly disagreed with the content of this item, a mean value is in the range from (1.81 to 2.6) means that the respondents disagreed with the content of this item, a mean value is in the range from (2.61 to 3.4) means that the respondents were neutral with the content of this item, a mean value is in the range from (3.41 to 4.2) means that the respondents agreed with the content of this item, a mean value is in the range from (4.21 to 5) means that the respondents strongly agreed with the content of this item.

3.3.1 Supply Chain Management

As shown below in table (24), Respondents agree with the content of item (1) with mean (3.78), this indicates that the concerned hotels seek to build long relationships with its suppliers. Respondents agree with the content of item (2) with mean (3.58), this indicates that the concerned hotels involve its suppliers in planning and development. Respondents agree with the content of item (3) with mean (3.72), this indicates that the concerned hotels have trust, commitment, and mutual benefits-based relationships with its suppliers. Respondents are neutral with the content of item (4) with mean (3.25), this indicates that the concerned hotels are not measuring and evaluating the supplier's satisfaction on continuous bases. Respondents strongly agree with the content of

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item (5) with mean (4.56), this indicates that the concerned hotels always inform the suppliers in advance of their changing needs.

Based on the findings, the majority of respondents scores a mean greater than (3.4) which implies the fact the concerned hotels implement the concepts and practices of supply chain management.

Table 24: Descriptive Analysis of Supply Chain Management

Item	N	Mean	Std. Deviation	Test Value = 3	
				t	Sig. (2-tailed)
1- The hotel seeks to build long relationships with its suppliers.	116	3.78	0.759	11.016	0.001
2- The hotel involves its suppliers in planning and development.	116	3.58	0.771	8.072	0.001
3- The relationships with the suppliers are based on trust, commitment, and mutual benefits.	116	3.72	0.947	8.234	0.001
4- The hotel continuously measures and evaluates the supplier's satisfaction.	116	3.25	0.907	6.549	0.001
5- The hotel informs the suppliers in advance of changing needs.	116	4.56	0.676	8.926	0.001

Source: SPSS outputs

3.3.2 Logistics

As shown below in table (25), Respondents agree with the content of item (1) with mean (3.84), this indicates that the concerned hotels purchase the required materials through tenders and quotations. Respondents agree with the content of item (2) with mean (4.01), this indicates that the concerned hotels offer a fair competition to the suppliers and choose the best offers. Respondents disagree with the content of item (3) with mean (2.19), this indicates that the concerned hotels don't bear losses due to improper storing. Respondents are neutral with the content of item (4) with mean (4.26), this indicates that the concerned hotels purchase the required materials in a timely manner to reduce the warehousing costs. Respondents strongly agree with the content of item (5) with mean (3.97), this indicates that the concerned hotels purchase the required materials in a timely manner to ensure the continuity of the service.

Based on the findings, the majority of respondents scores a mean greater than (3.4) which implies the fact the concerned hotels implement the concepts and practices of logistics.

Table 25: Descriptive Analysis of Logistics

Item	N	Mean	Std. Deviation	Test Value = 3	
				t	Sig. (2-tailed)
1- The hotel purchases the required materials through tenders and quotations.	116	3.84	0.741	12.273	0.001
2- The hotel offers a fair competition to the suppliers and chooses the best offers.	116	4.01	0.818	13.277	0.001
3- The hotel bears losses due to improper storing.	116	2.19	0.900	13.000	0.001
4- The hotel purchases the required materials in a timely manner to reduce the warehousing costs.	116	4.26	0.627	19.844	0.001
5- The hotel purchases the required materials in a timely manner to ensure the continuity of the service.	116	3.97	0.728	14.415	0.001

Source: SPSS outputs

3.3.3 Competitive Advantage

As shown below in table (26), Respondents strongly agree with the content of item (1) with mean (4.52), this indicates that the cost of services provided by the concerned hotels are less expensive than the competitors. Respondents disagree with the content of item (2) with mean (2.42), this indicates that the concerned hotels don't use research and development to reduce the cost of services. Respondents agree with the content of item (3) with mean (3.78), this indicates that the concerned hotels seek to reduce the defective rate in the services. Respondents agree with the content of item (4) with mean (3.84), this indicates that the concerned hotels seek to make its services conform to the international specifications and standards. Respondents strongly agree with the content of item (5) with mean (4.56), this indicates that the concerned hotels deliver the orders to its clients on time.

Based on the findings, the majority of respondents scores a mean greater than (3.4) which implies the fact the concerned hotels implement the concepts and practices of competitive advantage.

Table 26: Descriptive Analysis of Competitive Advantage

Item	N	Mean	Std. Deviation	Test Value = 3	
				t	Sig. (2-tailed)
1- The cost of services provided by the hotel is less expensive than the competitors.	116	4.52	0.635	15.657	0.001
2- The hotel uses research and development to reduce the cost of services.	116	2.42	0.819	10.766	0.001
3- The hotel seeks to reduce the defective rate in the services.	116	3.87	0.704	13.313	0.001
4- The hotel seeks to make its services conform to the international specifications and standards.	116	3.84	0.667	13.636	0.001
5- The hotel delivers the orders to its clients on time.	116	4.56	0.624	16.515	0.001

Source: SPSS outputs

3.3.4 Organizational Performance

As shown below in table (27), Respondents strongly agree with the content of item (1) with mean (4.55), this indicates that the hotel are expanding the market share. Respondents agree with the content of item (2) with mean (4.42), this indicates that the concerned hotels have a growing return on investment. Respondents agree with the content of item (3) with mean (3.66), this indicates that the concerned hotels hotel achieves its market-oriented goals. Respondents agree with the content of item (4) with mean (3.53), this indicates that the concerned hotels are improving the overall competitive position. Respondents strongly agree with the content of item (5) with mean (4.76), this indicates that the concerned hotels have a growing profit margin on sales.

Based on the findings, the majority of respondents scores a mean greater than (3.4) which implies the fact the concerned hotels implement the concepts and practices of organizational performance.

Table 27: Descriptive Analysis of Organizational Performance

Item	N	Mean	Std. Deviation	Test Value = 3	
				t	Sig. (2-tailed)
1- Our hotel is expanding its market share.	116	4.55	0.645	15.512	0.001
2- Our hotel has a growing return on investment.	116	4.42	0.825	10.637	0.001
3- Our hotel achieves its market-oriented goals.	116	3.66	0.764	13.389	0.001
4- Our hotel is improving its overall competitive position.	116	3.53	0.613	13.313	0.001
5- Our hotel has a growing profit margin on sales.	116	4.76	0.683	16.556	0.001

Source: SPSS outputs

To sum up, this chapter discussed the research methodology to explain how the research is accomplished, what knowledge is required, what information is needed and how information is collected. In the next chapter, we present the test of hypotheses in order to identify the impact of supply chain management and logistics on the competitive advantage and organizational performance.

4. TEST OF HYPOTHESES

In addition to descriptive and correlation analyses, the researcher used simple linear regression analysis to test the hypotheses proposed in this study in order to identify the impact of supply chain management and logistics on the competitive advantage and organizational performance. This chapter of the study presents the results of the simple linear regression analysis. So far, the study established a framework of literature review and data analysis of descriptive statistics was described for the supply chain management, logistics, competitive advantage, and organizational performance in the selected hotels. This analysis enabled the researcher to test hypotheses and reach at a conclusion for the impact of the independent variables on the dependent variables.

4.1 First Hypothesis H1:

"There is a statistically significant impact of supply chain management on the competitive advantage in five stars hotels at the level of significance ($\alpha \leq 0.05$)".

In order to test the impact of supply chain management on the competitive advantage in five stars hotels, a simple linear regression method was used, between the supply chain management as independent variable, and the competitive advantage as dependent variable, as shown in the following tables:

As shown in table (28) below, there is a causal relationship between supply chain management and competitive advantage in five stars hotels, the correlation coefficient (R) is (0.610), which is greater than zero, that indicates to a positive relationship between supply chain management and competitive advantage in five stars hotels.

The square of the correlation (R Square value) is (0.372), which indicates that (37.2%) of the volatility and variability in the competitive advantage in five stars hotels is explained by supply chain management. In other words, the (R Square) value of (0.372) implies (37.2%) relative contribution of supply chain management in interpreting the competitive advantage in five stars hotels, the remaining (62.8%) of the changes in the change can be attributed to other factors.

The adjusted R Square is (0.362), which implies that supply chain management can account for (36.2%) of the variation in the competitive advantage in five stars hotels. Although there might be many factors that can explain the variable on the competitive advantage in five stars hotels, nearly (36.2%) of it is explained by supply chain management. This means that the remaining (63.8%) of

the variation in the competitive advantage in five stars hotels cannot be explained by supply chain management.

Table 28:Regression Model between SCM and Competitive Advantage in five stars hotels

Model Summary					
Classification	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Five Stars	1	.610ᵃ	.372	.362	.24280

a. Predictors: (Constant), Supply Chain Management
Source: SPSS outputs

Table (29) below shows the ANOVA results of the regression analysis. The significance value of (0.000) which is less than (0.05) indicates that the regression relationship is significant in predicting the effects of supply chain management on competitive advantage in five stars hotels, that implies that there is a significant impact of supply chain management on competitive advantage in five stars hotels.

The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data, the F-ratio shows a value of (37.953) which is greater than the F critical, and P-value is (0.000), that indicates that the model used for the study is well fitted, as well as it implies that the model is appropriate and significant.

Table 29: ANOVA Results between SCM and Competitive Advantage in five stars hotels

ANOVA ᵃ							
Classification		Model	Sum of Squares	df	Mean Square	F	Sig.
Five Stars	1	Regression	2.237	1	2.237	37.953	.000ᵇ
		Residual	3.773	64	.059		
		Total	6.010	65			

a. Dependent Variable: Competitive Advantage
b. Predictors: (Constant), Supply Chain Management
Source: SPSS outputs

Table (30) describes that supply chain management with significance of (0.000) which is less than (0.05) has a positive effect on the competitive advantage in five stars hotels.

The positive B-value of (.329) at tolerance level (6.161) implies that supply chain management has a positive influence on competitive advantage in five stars hotels, meaning that any increase in supply chain management will cause an increase in the competitive advantage multiplied by (0.329) in five stars hotels.

The Regression model can be formulated as the following:

Competitive Advantage = 2.839 + 0.329 (Supply Chain Management)

Table 30: Regression Coefficients between SCM and Competitive Advantage in five stars hotels

Coefficients [a]							
Classification	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Five Stars	1	(Constant)	2.839	.205		13.850	.000
		Supply Chain Management	.329	.053	.610	6.161	.000

a. Dependent Variable: Competitive Advantage

Source: SPSS outputs

The result of the first hypothesis H1:

We accept the null hypothesis, which means there is a statistically significant impact of supply chain management on the competitive advantage in five stars hotels at the level of significance ($\alpha \leq 0.05$).

4.2 Second Hypothesis H2:

"There is a statistically significant impact of supply chain management on the competitive advantage in four stars hotels at the level of significance ($\alpha \leq 0.05$)".

In order to test the impact of supply chain management on the competitive advantage in four stars hotels, a simple linear regression method was used, between the supply chain management as independent variable, and the competitive advantage as dependent variable, as shown in the following tables:

As shown in table (31) below, there is a causal relationship between supply chain management and competitive advantage in four stars hotels, the correlation coefficient (R) is (0.502), which is greater than zero, that indicates to a positive relationship between supply chain management and competitive advantage in four stars hotels.

The square of the correlation (R Square value) is (0.252), which indicates that (25.2%) of the volatility and variability in the competitive advantage in four stars hotels is explained by supply chain management. In other words, the (R Square) value of (0.252) implies (25.2%) relative contribution of supply chain management in interpreting the competitive advantage in four stars

hotels, the remaining (74.8%) of the changes in the change can be attributed to other factors.

The adjusted R Square is (0.236), which implies that supply chain management can account for (23.6%) of the variation in the competitive advantage in four stars hotels. Although there might be many factors that can explain the variable on the competitive advantage in four stars hotels, nearly (23.6%) of it is explained by supply chain management. This means that the remaining (76.4%) of the variation in the competitive advantage in four stars hotels cannot be explained by supply chain management.

Table 31: Regression Model between SCM and Competitive Advantage in four stars hotels

Model Summary					
Classification	**Model**	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
Four Stars	1	.502[a]	.252	.236	.47963

a. Predictors: (Constant), Supply Chain Management
Source: SPSS outputs

Table (32) below shows the ANOVA results of the regression analysis. The significance value of (0.000) which is less than (0.05) indicates that the regression relationship is significant in predicting the effects of supply chain management on competitive advantage in four stars hotels, that implies that there is a significant impact of supply chain management on competitive advantage in four stars hotels.

The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data, the F-ratio shows a value of (16.130) which is greater than the F critical, and P-value is (0.000), that indicates that the model used for the study is well fitted, as well as it implies that the model is appropriate and significant.

Table 32: ANOVA Results between SCM and Competitive Advantage in four stars hotels

ANOVA [a]							
Classification		**Model**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Four Stars	1	Regression	3.711	1	3.711	16.130	.000[b]
		Residual	11.042	48	.230		
		Total	14.753	49			

a. Dependent Variable: Competitive Advantage
b. Predictors: (Constant), Supply Chain Management
Source: SPSS outputs

Table (33) describes that supply chain management with significance of (0.000) which is less than

(0.05) has a positive effect on the competitive advantage in four stars hotels.

The positive B-value of (.571) at tolerance level (4.016) implies that supply chain management has a positive influence on competitive advantage in four stars hotels, meaning that any increase in supply chain management will cause an increase in the competitive advantage multiplied by (0.571) in four stars hotels.

The Regression model can be formulated as the following:

Competitive Advantage = 1.653 + 0.571 (Supply Chain Management)

Table 33: Regression Coefficients between SCM and Competitive Advantage in four stars hotels

Classification		Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Four Stars	1	(Constant)	1.653	.492		3.357	.002
		Supply Chain Management	.571	.142	.502	4.016	.000

a. Dependent Variable: Competitive Advantage
Source: SPSS outputs

The result of the second hypothesis H2:

We accept the null hypothesis, which means there is a statistically significant impact of supply chain management on the competitive advantage in four stars hotels at the level of significance ($\alpha \leq 0.05$).

4.3 Third Hypothesis H3:

"There is a statistically significant impact of logistics on the competitive advantage in five stars hotels at the level of significance ($\alpha \leq 0.05$)".

In order to test the impact of logistics on the competitive advantage in five stars hotels, a simple linear regression method was used, between the logistics as independent variable, and the competitive advantage as dependent variable, as shown in the following tables:

As shown in table (34) below, there is a causal relationship between logistics and competitive advantage in five stars hotels, the correlation coefficient (R) is (0.588), which is greater than zero, that indicates to a positive relationship between logistics and competitive advantage in five stars hotels.

The square of the correlation (R Square value) is (0.346), which indicates that (34.6%) of the volatility and variability in the competitive advantage in five stars hotels is explained by logistics. In other words, the (R Square) value of (0.346) implies (34.6%) relative contribution of logistics in interpreting the competitive advantage in five stars hotels, the remaining (65.4%) of the changes in the change can be attributed to other factors.

The adjusted R Square is (0.336), which implies that logistics can account for (33.6%) of the variation in the competitive advantage in five stars hotels. Although there might be many factors that can explain the variable on the competitive advantage in five stars hotels, nearly (33.6%) of it is explained by logistics. This means that the remaining (66.4%) of the variation in the competitive advantage in five stars hotels cannot be explained by logistics.

Table 34: Regression Model between Logistics and Competitive Advantage in five stars hotels

Model Summary					
Classification	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Five Stars	1	.588ᵃ	.346	.336	.24783

a. Predictors: (Constant), Logistics
Source: SPSS outputs

Table (35) below shows the ANOVA results of the regression analysis. The significance value of (0.000) which is less than (0.05) indicates that the regression relationship is significant in predicting the effects of logistics on competitive advantage in five stars hotels, that implies that there is a significant impact of logistics on competitive advantage in five stars hotels.

The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data, the F-ratio shows a value of (33.853) which is greater than the F critical, and P-value is (0.000), that indicates that the model used for the study is well fitted, as well as it implies that the model is appropriate and significant.

Table 35: ANOVA Results between Logistics and Competitive Advantage in five stars hotels

Classification	Model		Sum of Squares	df	Mean Square	F	Sig.
Five Stars	**1**	**Regression**	2.079	1	2.079	33.853	.000[b]
		Residual	3.931	64	.061		
		Total	6.010	65			

a. Dependent Variable: Competitive Advantage
b. Predictors: (Constant), Logistics
Source: SPSS outputs

Table (36) describes that logistics with significance of (0.000) which is less than (0.05) has a positive effect on the competitive advantage in five stars hotels.

The positive B-value of (.311) at tolerance level (5.818) implies that logistics has a positive influence on competitive advantage in five stars hotels, meaning that any increase in logistics will cause an increase in the competitive advantage multiplied by (0.311) in five stars hotels.

The Regression model can be formulated as the following:

Competitive Advantage = 2.764 + 0.311 (Logistics)

Table 36: Regression Coefficients between Logistics and Competitive Advantage in five stars hotels

Classification		Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	**Std. Error**	**Beta**		
Five Stars	**1**	**(Constant)**	2.764	.230		12.043	.000
		Logistics	.311	.053	.588	5.818	.000

a. Dependent Variable: Competitive Advantage
Source: SPSS outputs

The result of the third hypothesis H3:

We accept the null hypothesis, which means there is a statistically significant impact of logistics on the competitive advantage in five stars hotels at the level of significance ($\alpha \leq 0.05$).

4.4 Fourth Hypothesis H4:

"There is a statistically significant impact of logistics on the competitive advantage in four stars hotels at the level of significance ($\alpha \leq 0.05$)".

In order to test the impact of logistics on the competitive advantage in four stars hotels, a simple linear regression method was used, between the logistics as independent variable, and the competitive advantage as dependent variable, as shown in the following tables:

As shown in table (37) below, there is a causal relationship between logistics and competitive advantage in four stars hotels, the correlation coefficient (R) is (0.402), which is greater than zero, that indicates to a positive relationship between logistics and competitive advantage in four stars hotels.

The square of the correlation (R Square value) is (0.162), which indicates that (16.2%) of the volatility and variability in the competitive advantage in four stars hotels is explained by logistics. In other words, the (R Square) value of (0.162) implies (16.2%) relative contribution of logistics in interpreting the competitive advantage in four stars hotels, the remaining (83.8%) of the changes in the change can be attributed to other factors.

The adjusted R Square is (0.144), which implies that logistics can account for (14.4%) of the variation in the competitive advantage in four stars hotels. Although there might be many factors that can explain the variable on the competitive advantage in four stars hotels, nearly (14.4%) of it is explained by logistics. This means that the remaining (85.6%) of the variation in the competitive advantage in four stars hotels cannot be explained by logistics.

Table 37: Regression Model between Logistics and Competitive Advantage in four stars hotels

Model Summary					
Classification	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Four Stars	1	.402ᵃ	.162	.144	.50764

a. Predictors: (Constant), Logistics
Source: SPSS outputs

Table (38) below shows the ANOVA results of the regression analysis. The significance value of (0.004) which is less than (0.05) indicates that the regression relationship is significant in predicting the effects of logistics on competitive advantage in four stars hotels, that implies that there is a significant impact of logistics on competitive advantage in four stars hotels.

The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data, the F-ratio shows a value of (9.249) which is greater than the F critical, and P-value is (0.004), that indicates that the model used for the study is well fitted, as well as it implies that the model is appropriate and significant.

Table 38: ANOVA Results between Logistics and Competitive Advantage in four stars hotels

Classification		Model	Sum of Squares	df	Mean Square	F	Sig.
Four Stars	1	Regression	2.383	1	2.383	9.249	.004[b]
		Residual	12.369	48	.258		
		Total	14.753	49			

a. Dependent Variable: Competitive Advantage
b. Predictors: (Constant), Logistics
Source: SPSS outputs

Table (39) describes that logistics with significance of (0.004) which is less than (0.05) has a positive effect on the competitive advantage in four stars hotels.

The positive B-value of (.617) at tolerance level (3.041) implies that logistics has a positive influence on competitive advantage in four stars hotels, meaning that any increase in logistics will cause an increase in the competitive advantage multiplied by (0.617) in four stars hotels.

The Regression model can be formulated as the following:

Competitive Advantage = 1.331 + 0.617 (Logistics)

Table 39: Regression Coefficients between Logistics and Competitive Advantage in four stars hotels

Classification		Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Four Stars	1	(Constant)	1.331	.753		1.767	.084
		Logistics	.617	.203	.402	3.041	.004

a. Dependent Variable: Competitive Advantage
Source: SPSS outputs

The result of the fourth hypothesis H4:

We accept the null hypothesis, which means there is a statistically significant impact of logistics on the competitive advantage in four stars hotels at the level of significance ($\alpha \leq 0.05$).

4.5 Fifth Hypothesis H5:

"There is a statistically significant impact of supply chain management on the organizational performance in five stars hotels at the level of significance ($\alpha \leq 0.05$)".

In order to test the impact of supply chain management on the organizational performance in five stars hotels, a simple linear regression method was used, between the supply chain management as independent variable, and the organizational performance as dependent variable, as shown in the following tables:

As shown in table (40) below, there is a causal relationship between supply chain management and organizational performance in five stars hotels, the correlation coefficient (R) is (0.619), which is greater than zero, that indicates to a positive relationship between supply chain management and organizational performance in five stars hotels.

The square of the correlation (R Square value) is (0.398), which indicates that (39.8%) of the volatility and variability in the organizational performance in five stars hotels is explained by supply chain management. In other words, the (R Square) value of (0.398) implies (39.8%) relative contribution of supply chain management in interpreting the organizational performance in five stars hotels, the remaining (60.2%) of the changes in the change can be attributed to other factors. The adjusted R Square is (0.371), which implies that supply chain management can account for (37.1%) of the variation in the organizational performance in five stars hotels. Although there might be many factors that can explain the variable on the organizational performance in five stars hotels, nearly (37.1%) of it is explained by supply chain management. This means that the remaining (62.9%) of the variation in the organizational performance in five stars hotels cannot be explained by supply chain management.

Table 40:Regression Model between SCM and Organizational Performance in five stars hotels

Model Summary					
Classification	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Five Stars	1	.619[a]	.398	.371	.24376

a. Predictors: (Constant), Supply Chain Management
Source: SPSS outputs

Table (41) below shows the ANOVA results of the regression analysis. The significance value of (0.000) which is less than (0.05) indicates that the regression relationship is significant in

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predicting the effects of supply chain management on organizational performance in five stars hotels, that implies that there is a significant impact of supply chain management on organizational performance in five stars hotels.

The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data, the F-ratio shows a value of (36.947) which is greater than the F critical, and P-value is (0.000), that indicates that the model used for the study is well fitted, as well as it implies that the model is appropriate and significant.

Table 41: ANOVA Results between SCM and Organizational Performance in five stars hotels

Classification	Model		Sum of Squares	df	Mean Square	F	Sig.
		ANOVA ᵃ					
Five Stars	1	Regression	2.262	1	2.259	36.947	.000ᵇ
		Residual	3.749	64	.058		
		Total	6.011	65			

a. Dependent Variable: Organizational Performance
b. Predictors: (Constant), Supply Chain Management
Source: SPSS outputs

Table (42) describes that supply chain management with significance of (0.000) which is less than (0.05) has a positive effect on the organizational performance in five stars hotels.

The positive B-value of (.335) at tolerance level (6.164) implies that supply chain management has a positive influence on organizational performance in five stars hotels, meaning that any increase in supply chain management will cause an increase in the organizational performance multiplied by (0.335) in five stars hotels.

The Regression model can be formulated as the following:

Organizational Performance = 2.267 + 0.335 (Supply Chain Management)

Table 42: Regression Coefficients between SCM and Organizational Performance in five stars hotels

Classification	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Coefficients ᵃ					
			B	Std. Error	Beta		
Five Stars	1	(Constant)	2.267	.204		13.859	.000
		Supply Chain Management	.335	.054	.612	6.164	.000

a. Dependent Variable: Organizational Performance
Source: SPSS outputs

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The result of the fifth hypothesis H5:

We accept the null hypothesis, which means there is a statistically significant impact of supply chain management on the organizational performance in five stars hotels at the level of significance ($\alpha \leq 0.05$).

4.6 Sixth Hypothesis H6:

"There is a statistically significant impact of supply chain management on the organizational performance in four stars hotels at the level of significance ($\alpha \leq 0.05$)".

In order to test the impact of supply chain management on the organizational performance in four stars hotels, a simple linear regression method was used, between the supply chain management as independent variable, and the organizational performance as dependent variable, as shown in the following tables:

As shown in table (43) below, there is a causal relationship between supply chain management and organizational performance in four stars hotels, the correlation coefficient (R) is (0.512), which is greater than zero, that indicates to a positive relationship between supply chain management and organizational performance in four stars hotels.

The square of the correlation (R Square value) is (0.263), which indicates that (26.3%) of the volatility and variability in the organizational performance in four stars hotels is explained by supply chain management. In other words, the (R Square) value of (0.263) implies (26.3%) relative contribution of supply chain management in interpreting the organizational performance in four stars hotels, the remaining (73.7%) of the changes in the change can be attributed to other factors. The adjusted R Square is (0.246), which implies that supply chain management can account for (24.6%) of the variation in the organizational performance in four stars hotels. Although there might be many factors that can explain the variable on the organizational performance in four stars hotels, nearly (24.6%) of it is explained by supply chain management. This means that the remaining (75.4%) of the variation in the organizational performance in four stars hotels cannot be explained by supply chain management.

Table 43: Regression Model between SCM and Organizational Performance in four stars hotels

					Model Summary

Classification	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Four Stars	1	.512[a]	.263	.246	.47873

a. Predictors: (Constant), Supply Chain Management
Source: SPSS outputs

Table (44) below shows the ANOVA results of the regression analysis. The significance value of (0.000) which is less than (0.05) indicates that the regression relationship is significant in predicting the effects of supply chain management on organizational performance in four stars hotels, that implies that there is a significant impact of supply chain management on organizational performance in four stars hotels.

The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data, the F-ratio shows a value of (16.139) which is greater than the F critical, and P-value is (0.000), that indicates that the model used for the study is well fitted, as well as it implies that the model is appropriate and significant.

Table 44: ANOVA Results between SCM and Organizational Performance in four stars hotels

					ANOVA [a]		
Classification		Model	Sum of Squares	df	Mean Square	F	Sig.
Four Stars	1	Regression	3.717	1	3.715	16.139	.000[b]
		Residual	11.093	48	.225		
		Total	14.81	49			

a. Dependent Variable: Organizational Performance
b. Predictors: (Constant), Supply Chain Management
Source: SPSS outputs

Table (45) describes that supply chain management with significance of (0.000) which is less than (0.05) has a positive effect on the organizational performance in four stars hotels.

The positive B-value of (.583) at tolerance level (4.009) implies that supply chain management has a positive influence on organizational performance in four stars hotels, meaning that any increase in supply chain management will cause an increase in the organizational performance multiplied by (0.583) in four stars hotels.

The Regression model can be formulated as the following:

Organizational Performance = 1.678 + 0.583 (Supply Chain Management)

Table 45: Regression Coefficients between SCM and Organizational Performance in four stars hotels

Classification	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Four Stars	1	(Constant)	1.678	.499		3.349	.002
		Supply Chain Management	.583	.145	.508	4.009	.000

a. Dependent Variable: Organizational Performance
Source: SPSS outputs

The result of the sixth hypothesis H6:

We accept the null hypothesis, which means there is a statistically significant impact of supply chain management on the organizational performance in four stars hotels at the level of significance ($\alpha \leq 0.05$).

4.7 Seventh Hypothesis H7:

"There is a statistically significant impact of logistics on the organizational performance in five stars hotels at the level of significance ($\alpha \leq 0.05$)".

In order to test the impact of logistics on the organizational performance in five stars hotels, a simple linear regression method was used, between the logistics as independent variable, and the organizational performance as dependent variable, as shown in the following tables:

As shown in table (46) below, there is a causal relationship between logistics and organizational performance in five stars hotels, the correlation coefficient (R) is (0.576), which is greater than zero, that indicates to a positive relationship between logistics and organizational performance in five stars hotels.

The square of the correlation (R Square value) is (0.335), which indicates that (33.5%) of the volatility and variability in the organizational performance in five stars hotels is explained by logistics. In other words, the (R Square) value of (0.335) implies (33.5%) relative contribution of logistics in interpreting the organizational performance in five stars hotels, the remaining (66.5%) of the changes in the change can be attributed to other factors.

The adjusted R Square is (0.341), which implies that logistics can account for (34.1%) of the variation in the organizational performance in five stars hotels. Although there might be many

factors that can explain the variable on the organizational performance in five stars hotels, nearly (34.1%) of it is explained by logistics. This means that the remaining (65.9%) of the variation in the organizational performance in five stars hotels cannot be explained by logistics.

Table 46: Regression Model between Logistics and Organizational Performance in five stars hotels

Model Summary					
Classification	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Five Stars	1	.576ᵃ	.335	.341	.24642

a. Predictors: (Constant), Logistics
Source: SPSS outputs

Table (47) below shows the ANOVA results of the regression analysis. The significance value of (0.000) which is less than (0.05) indicates that the regression relationship is significant in predicting the effects of logistics on organizational performance in five stars hotels, that implies that there is a significant impact of logistics on organizational performance in five stars hotels. The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data, the F-ratio shows a value of (33.739) which is greater than the F critical, and P-value is (0.000), that indicates that the model used for the study is well fitted, as well as it implies that the model is appropriate and significant.

Table 47: ANOVA Results between Logistics and Organizational Performance in five stars hotels

ANOVA ᵃ							
Classification		Model	Sum of Squares	df	Mean Square	F	Sig.
Five Stars	1	Regression	2.064	1	2.085	33.739	.000ᵇ
		Residual	3.927	64	.068		
		Total	5.991	65			

a. Dependent Variable: Organizational Performance
b. Predictors: (Constant), Logistics
Source: SPSS outputs

Table (48) describes that logistics with significance of (0.000) which is less than (0.05) has a positive effect on the organizational performance in five stars hotels.

The positive B-value of (.319) at tolerance level (5.897) implies that logistics has a positive influence on organizational performance in five stars hotels, meaning that any increase in logistics will cause an increase in the organizational performance multiplied by (0.319) in five stars hotels.

The Regression model can be formulated as the following:

Organizational Performance = 2.798 + 0.319 (Logistics)

Table 48: Regression Coefficients between Logistics and Organizational Performance in five stars hotels

Classification	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Five Stars	1	(Constant)	2.798	.230		12.043	.000
		Logistics	.319	.053	.588	5.897	.000

a. Dependent Variable: Organizational Performance
Source: SPSS outputs

The result of the seventh hypothesis H7:

We accept the null hypothesis, which means there is a statistically significant impact of logistics on the organizational performance in five stars hotels at the level of significance ($\alpha \leq 0.05$).

4.8 Eighth Hypothesis H8:

"There is a statistically significant impact of logistics on the organizational performance in four stars hotels at the level of significance ($\alpha \leq 0.05$)".

In order to test the impact of logistics on the organizational performance in four stars hotels, a simple linear regression method was used, between the logistics as independent variable, and the organizational performance as dependent variable, as shown in the following tables:

As shown in table (49) below, there is a causal relationship between logistics and organizational performance in four stars hotels, the correlation coefficient (R) is (0.412), which is greater than zero, that indicates to a positive relationship between logistics and organizational performance in four stars hotels.

The square of the correlation (R Square value) is (0.169), which indicates that (16.9%) of the volatility and variability in the organizational performance in four stars hotels is explained by logistics. In other words, the (R Square) value of (0.169) implies (16.9%) relative contribution of logistics in interpreting the organizational performance in four stars hotels, the remaining (83.1%) of the changes in the change can be attributed to other factors.

The adjusted R Square is (0.149), which implies that logistics can account for (14.9%) of the

variation in the organizational performance in four stars hotels. Although there might be many factors that can explain the variable on the organizational performance in four stars hotels, nearly (14.9%) of it is explained by logistics. This means that the remaining (85.1%) of the variation in the organizational performance in four stars hotels cannot be explained by logistics.

Table 49: Regression Model between Logistics and Organizational Performance in four stars hotels

Model Summary					
Classification	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Four Stars	1	.412[a]	.169	.149	.50952

a. Predictors: (Constant), Logistics
Source: SPSS outputs

Table (50) below shows the ANOVA results of the regression analysis. The significance value of (0.004) which is less than (0.05) indicates that the regression relationship is significant in predicting the effects of logistics on organizational performance in four stars hotels, that implies that there is a significant impact of logistics on organizational performance in four stars hotels. The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data, the F-ratio shows a value of (9.285) which is greater than the F critical, and P-value is (0.004), that indicates that the model used for the study is well fitted, as well as it implies that the model is appropriate and significant.

Table 50: ANOVA Results between Logistics and Organizational Performance in four stars hotels

ANOVA [a]							
Classification		Model	Sum of Squares	df	Mean Square	F	Sig.
Four Stars	1	Regression	2.365	1	2.389	9.285	.004[b]
		Residual	12.329	48	.251		
		Total	14.694	49			

a. Dependent Variable: Organizational Performance
b. Predictors: (Constant), Logistics
Source: SPSS outputs

Table (51) describes that logistics with significance of (0.004) which is less than (0.05) has a positive effect on the organizational performance in four stars hotels.

The positive B-value of (.629) at tolerance level (3.049) implies that logistics has a positive influence on organizational performance in four stars hotels, meaning that any increase in logistics will cause an increase in the organizational performance multiplied by (0.629) in four stars hotels.

The Regression model can be formulated as the following:

Organizational Performance = 1.346 + 0.629 (Logistics)

Table 51: Regression Coefficients between Logistics and Organizational Performance in four stars hotels

Classification		Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Four Stars	1	(Constant)	1.346	.759		1.762	.084
		Logistics	.629	.208	.402	3.049	.004

a. Dependent Variable: Organizational Performance

Source: SPSS outputs

The result of the eight hypothesis H8:

We accept the null hypothesis, which means there is a statistically significant impact of logistics on the organizational performance in four stars hotels at the level of significance ($\alpha \leq 0.05$).

5. Conclusion, Recommendations, Limitation, and Further Studies

This chapter discusses the Conclusion, the Summary of Major Statistical Findings, New Scientific Results, Recommendations, Limitation, and Further Studies.

5.1 Conclusion of the Study

5.1.2 Summary of Major Statistical Findings

According to the data analysis in the previous sections, a summary of the statistical findings is presented as follows:

- The majority responses on supply chain management scores a mean greater than (3.4) which implies the fact the concerned hotels implement the concepts and practices of supply chain management.

- The majority responses on logistics scores a mean greater than (3.4) which implies the fact the concerned hotels implement the concepts and practices of logistics.

- The majority responses on competitive advantage scores a mean greater than (3.4) which implies the fact the concerned hotels implement the concepts and practices of competitive advantage.

- The majority responses on organizational performance scores a mean greater than (3.4) which implies the fact the concerned hotels implement the concepts and practices of organizational performance.

- The result from the study shows that there is significantly strong correlation between supply chain management and logistics, with correlation coefficient of (0.630) (r=0.630) and significance value less than (0.01). This implies that supply chain management is positively contributing to the logistics and there is a genuine positive relationship between supply chain management and logistics.

- The result from the study shows that there is significantly strong correlation between supply chain management and competitive advantage, with correlation coefficient of (0.583) (r=0.583) and significance value less than (0.01). This implies that supply chain management is positively contributing to the competitive advantage and there is a genuine positive relationship between supply chain management and competitive advantage.

- The result from the study shows that there is significantly strong correlation between logistics and competitive advantage, with correlation coefficient of (0.574) (r=0.574) and significance value less than (0.01). This implies that logistics is positively contributing to the competitive advantage and there is a genuine positive relationship between logistics and competitive advantage.

- The result from the study shows that there is significantly strong correlation between supply chain management and organizational performance, with correlation coefficient of (0.564) (r=0.564) and significance value less than (0.01). This implies that supply chain management is positively contributing to the organizational performance and there is a genuine positive relationship between supply chain management and organizational performance.

- The result from the study shows that there is significantly strong correlation between logistics and organizational performance, with correlation coefficient of (0.528) (r=0.528) and significance value less than (0.01). This implies that logistics is positively contributing to the organizational performance and there is a genuine positive relationship between logistics and organizational performance.

- The finding from simple linear regression analysis between supply chain management and competitive advantage in five stars hotels shows the correlation coefficient (R) is (0.610), which is greater than zero, that indicates to a positive relationship between supply chain management and competitive advantage, which means there is a statistically significant impact of supply chain management on the competitive advantage in five stars hotels at the level of significance ($\alpha \leq 0.05$).

- The finding from simple linear regression analysis between supply chain management and competitive advantage in four stars hotels shows the correlation coefficient (R) is (0.502), which is greater than zero, that indicates to a positive relationship between supply chain management and competitive advantage, which means there is a statistically significant impact of supply chain management on the competitive advantage in four stars hotels at the level of significance ($\alpha \leq 0.05$).

- The finding from simple linear regression analysis between logistics and competitive advantage in five stars hotels shows the correlation coefficient (R) is (0. 588), which is greater than zero, that indicates to a positive relationship between logistics and competitive

advantage, which means there is a statistically significant impact of logistics on the competitive advantage in five stars hotels at the level of significance ($\alpha \leq 0.05$).

- The finding from simple linear regression analysis between logistics and competitive advantage in four stars hotels shows the correlation coefficient (R) is (0. 402), which is greater than zero, that indicates to a positive relationship between logistics and competitive advantage, which means there is a statistically significant impact of logistics on the competitive advantage in four stars hotels at the level of significance ($\alpha \leq 0.05$).

- The finding from simple linear regression analysis between supply chain management and organizational performance in five stars hotels shows the correlation coefficient (R) is (0.619), which is greater than zero, that indicates to a positive relationship between supply chain management and organizational performance, which means there is a statistically significant impact of supply chain management on the organizational performance in five stars hotels at the level of significance ($\alpha \leq 0.05$).

- The finding from simple linear regression analysis between supply chain management and organizational performance in four stars hotels shows the correlation coefficient (R) is (0.512), which is greater than zero, that indicates to a positive relationship between supply chain management and organizational performance, which means there is a statistically significant impact of supply chain management on the organizational performance in four stars hotels at the level of significance ($\alpha \leq 0.05$).

- The finding from simple linear regression analysis between logistics and organizational performance in five stars hotels shows the correlation coefficient (R) is (0. 576), which is greater than zero, that indicates to a positive relationship between logistics and organizational performance, which means there is a statistically significant impact of logistics on the organizational performance in five stars hotels at the level of significance ($\alpha \leq 0.05$).

- The finding from simple linear regression analysis between logistics and organizational performance in four stars hotels shows the correlation coefficient (R) is (0. 412), which is greater than zero, that indicates to a positive relationship between logistics and organizational performance, which means there is a statistically significant impact of logistics on the organizational performance in four stars hotels at the level of significance ($\alpha \leq 0.05$).

5.2.2 New Scientific Results

This study contributes to a better understanding of the impact of supply chain management and logistics on the competitive advantage and organizational performance in four- and five-stars hotels in Damascus.

Based on the data analysis in the previous sections and the summary of the statistical findings, the following new scientific results are given:

- This study found that supply chain management has significant positive effect on the competitive advantage and organizational performance in four- and five-stars hotels in Damascus, through seeking to build long relationships between the hotels and their suppliers in the upper segments of the Syrian hospitality industry, involving the suppliers in planning and development, building relationships with the suppliers based on trust, commitment and mutual benefits, measuring and evaluating continuously the supplier's satisfaction and informing the suppliers in advance of changing needs.

- This study found that logistics has significant positive effect on the competitive advantage and organizational performance in four- and five-stars hotels in Damascus in the upper segments of the Syrian hospitality industry, through purchasing the required materials through tenders and quotations, offering a fair competition to the suppliers and choosing the best offers, purchasing the required materials in a timely manner to reduce the warehousing costs and to ensure the continuity of the service.

- First study in the tourism and hospitality industry in Syria, which empirically demonstrates the rigorous influencing role of logistics and supply chain management in competitive advantage and organizational performance, although this strong relationship is already evident today, in the 21st century, but this study has managed to prove, strengthen, and enforce it with real data from a specific industry in a specific country.

- In the light of the great damage in the tourism and hospitality industry in Syria, facing political, security and infrastructure challenges, in addition to the critical economic conditions and lack of available resources due to sanctions imposed on Syria, this study will help the organizations in the tourism and hospitality industry in Syria to overcome and address these unique challenges in the field of supply chain management and logistics.

5.3 Recommendations

Based on the findings and conclusions, the researcher forwards the following recommendations:

- The organizations must focus on supply chain management and logistics practices in order to achieve their competitive advantages and organizational performance by establishing the practices at hotels, departments, and staff levels.
- In order to make supply chain management of the hotels efficient and effective, hotels have to develop long strong supplier relationships based on trust, commitment, and mutual benefits by focusing on key and very important suppliers.
- In order to have an efficient and effective logistics in the hotels, hotels have to develop a purchasing mechanism which offers a fair competition based on tenders and quotations.

5.4 Limitation and Further Studies

Although this study makes significant contributions to academic research and practices, it has several limitations that open up avenues for future studies.

First, the researcher conducted this study using four- and five-stars hotels in Damascus and thus the findings are more meaningful in this field context. Hence, it is not clear how supply chain management and logistics practices are used to achieve competitive advantages and organizational performance in different contexts, such as in different organizations. Future studies can investigate this issue in other companies or conduct cross-company studies.

Second, this study used a cross-sectional design and cannot reflect the lag time or long-term effects of supply chain management and logistics on competitive advantage and organizational performance. Therefore, future studies could conduct longitudinal studies to examine the relationship between supply chain management, logistics, competitive advantage, and organizational performance.

Third, this study only examined the moderating effect on the relationship between supply chain management, logistics, competitive advantage, and organizational performance.

Future studies could investigate the causal effects of competitive strategies on the qualitative facets of supply chain management and logistics. For example, they could explore what kinds of supply chain management and logistics, such as types of information sharing, should be emphasized under various strategies.

Finally, by focusing on the hotels, the researcher developed a broad picture of the relationship between supply chain management, logistics, competitive advantage, and organizational performance. However, this relationship may not be the same for all companies, industries, or regions, so future researches should investigate the effects of these contextual factors in different industries and regions.

6. Appendix

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6.2 Definitions of Terms

- Supply Chain: The supply chain is expressed as a chain of activities that cover enterprise functions from the ordering and receipt of raw materials, raw material handling, manufacturing of products, to the distribution and delivery of final product to the customer (Li et al., 2006, p.93).

- Supply Chain Management (SCM): SCM encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities, including coordination and collaboration with suppliers, intermediaries, third-party service providers, and customers. Thus, the supply chain encompasses all activities involved in the production and delivery of a final product or service, from the supplier's supplier to the customer's customer at the right cost, at the right quantities, at the right time, to the right places and customers (Fugate et al., 2010, p.52).

- Logistics: Logistics is that part of Supply Chain Management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customer's requirements, it includes four major components: Procurement, Warehousing, Inventory and Transportation (Fugate et al., 2010, p.54).

- **Competitive Advantage**: is the ability of the organization to create a defensible position over its competitors, it comprises capabilities that allow an organization to differentiate itself from its competitors, and it has five dimensions: cost, quality, delivery, flexibility, and innovation (Li et al., 2006, p.111).

- **Organizational Performance**: Organizational performance refers to how well an organization achieves its market- oriented goals as well as its financial goals (Yamin & Mavondo, 2009, p.56).

- **Services:** Services are intangible solutions that are also an exchange between buyer and seller, unlike products, services cannot be touched, owned, or stored for later use, another defining feature of a service is the client is typically a part of the service experience (Albrecht et al., 2023, p.308). For example, the hospitality service, a client spending the night in a hotel and using the hotel facilities is a service, clients cannot own the room or the facilities, they cannot store it for later, nor will they have a tangible object representing the service, imagine booking a room in a hotel, you will have to attend at the hotel to realize the full benefit of the service experience.

6.3 Declaration

I, the undersigned **Wael Alasfar** by signing this declaration declare that "**The Impact of Supply Chain Management and Logistics on the Competitive Advantage and Organizational Performance: A Field Study in Tourism Organizations in Syria**" my PhD thesis was my own work; during the dissertation I complied with the LXXVI./1999. of the rules of copyright and the rules of the doctoral dissertation prescribed by the Doctoral School, especially regarding references and citations.[1]

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Article 36 (1) Details of public lectures and other similar works, as well as political speeches, may be freely used for information purposes, within the scope justified by the purpose. For such use, the source, along with the author's name, should be indicated, unless this is impossible.

6.4 Questionnaire

<u>Ladies and Gentlemen</u>

My name is Wael Alasfar, I am a PhD student at the University of Sopron, I would like to encourage you to complete the questionnaire below, thanks to which I will gather the information necessary to write my PhD's thesis. The study concerns the Impact of Supply Chain Management and Logistics on Achieving Competitive Advantage.

The survey will take you no more than 5 minutes to complete it.

Thank you for your time.

<u>A: Demographic Information:</u>

1- Gender:

☐   ☐

Male   Female

2- Age:

☐   ☐   ☐

Less than 25   Between 25 - 45   More Than 45

3- Occupational level:

☐   ☐   ☐

Assistant   Officer   Manager

4- Years of employment:

☐   ☐   ☐

Less than 5 years   Between 5 - 10   More than 10 years

5- Qualifications:

☐   ☐   ☐

Bachelor's Degree   Master's Degree   PhD

6- Hotel Classification:

☐   ☐

Five Stars   Four Stars

B: Scientific Information:

1- Independent Variables:

N	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	First independent variable: Supply Chain Management					
1	The hotel seeks to build long relationships with its suppliers					
2	The hotel involves its suppliers in planning and development					
3	The relationships with the suppliers are based on trust, commitment and mutual benefits					
4	The hotel continuously measures and evaluates the supplier's satisfaction					
5	The hotel informs the suppliers in advance of changing needs					
	Second independent variable: Logistics					
1	The hotel purchases the required materials through tenders and quotations					
2	The hotel offers a fair competition to the suppliers and chooses the best offers					
3	The hotel bears losses due to improper storing					
4	The hotel purchases the required materials in a timely manner to reduce the warehousing costs					
5	The hotel purchases the required materials in a timely manner to ensure the continuity of the service					

2- Dependent Variables:

N	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	First Dependent variable: Competitive Advantage					
1	The cost of services provided by the hotel is less expensive than the competitors					
2	The hotel uses research and development to reduce the cost of services					
3	The hotel seeks to reduce the defective rate in the services					
4	The hotel seeks to make its services conform to the international specifications and standards					
5	The hotel delivers the orders to its clients on time					
	Second Dependent variable: Organizational Performance					
1	Our hotel is expanding its market share					
2	Our hotel has a growing return on investment					
3	Our hotel achieves its market-oriented goals					
4	Our hotel is improving its overall competitive position					
5	Our hotel has a growing profit margin on sales					

Thanks for your time!

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