



e-ISSN:2582-7219



# INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

Volume 7, Issue 3, March 2024



INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA

Impact Factor: 7.521



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# Evaluating strategies for cost reduction in SCM relating to export and import

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**ABSTRACT:** Corporations face significant pressure to maximise profits while customers simultaneously demand reduced pricing. As a result, corporations must implement cost-cutting measures across all departments. Tummala et al. (2006) argue that modifying the supply chain can reduce expenses and enhance a company's ability to compete on the basis of pricing. Kumar and Chang (2007) emphasise that reducing expenses in a corporation leads to an increase in net income. According to Lahti et al. (2009), the success of a firm is determined by the performance of its supply chain. In his study, Shahabuddin (2011) discovered that organisations who used supply chain strategies were more financially successful compared to those that did not.

**KEYWORDS:** Supply Chain Management, performance measurements, supply chain cost, supply chain excellence

## 1.SUPPLY CHAIN MANAGEMENT AND SUPPLY CHAIN COST

Supply chain management refers to the coordination and optimisation of all activities involved in the production and delivery of goods or services. Supply chain cost, on the other hand, refers to the expenses incurred throughout the supply chain process, including procurement, transportation, and inventory management.

Supply Chain Management (SCM) has garnered significant attention from both academia and industry professionals. The notion of Supply Chain Management (SCM) emerged in the late 1950s, as stated by Huan et al. (2004). The field of Supply Chain Management (SCM) experienced significant growth in the 1980s and saw a substantial surge in the 1990s, as noted by Huan et al. (2004). An increasing number of firms must prioritise their supply chain to achieve success in their business endeavours. In 1997, top executives had already acknowledged the significance of establishing efficient supply chains in order to gain a competitive edge, as stated by Higginson and Alam (1997) and Cooper et al. (1997). Supply chain management is a critical function that contributes to the success of a firm, as stated by Cambra and Polo (2008). According to Spens and Wisner (2009), Supply Chain Management (SCM) is still widely regarded as highly valuable.

There are numerous interpretations of SCM in the academic literature. The definitions have distinct focuses. The main areas of concentration are cost management, customer service, inventory cost management, and process flow optimisation. According to Shapiro (2001), the main goal of Supply Chain Management (SCM) is to minimise the overall cost of the supply chain in order to meet a predetermined and unchanging demand. The overall cost may encompass the following:

- Raw material and expenses related to the procurement of additional resources.
- The expense of transporting goods or materials into a specific location.
- Costs associated with investing in a facility.
- Direct and indirect production costs.
- Direct and indirect distribution costs refer to the expenses incurred in delivering products or services to customers, both through direct channels (such as company-owned stores or websites) and indirect channels (such as third-party retailers or wholesalers).
- Inventory holding cost refers to the expenses incurred by a company to store and maintain its inventory.
- Cost of transporting between facilities
- Cost of transporting goods from one location to another

The performance measuring system of a corporation is a crucial element for effective supply chain management. Insufficient standardised metrics and inadequate Enterprise Resource Planning (ERP) features may hinder the integration of performance measurements (Forslund and Jonsson, 2007). The significance of measuring supply chain performance is growing as supply chain networks have become more intricate (Mondragon and Lalwani, 2011). According to De Waal and Counet (2009), the main challenges faced by firms when establishing performance



measurement systems are a lack of commitment from senior management and the absence of a performance measurement culture. The limited knowledge and understanding of performance measurement systems in supply chains pose a substantial obstacle to the implementation of such systems for measuring performance (Charan et al., 2009).

The definition of SCC is categorised into six key categories: Manufacturing cost, Administration cost, Warehouse cost, Distribution cost, Capital cost, and Installation cost. Each category is further broken into many cost aspects, as shown in Figure 1.

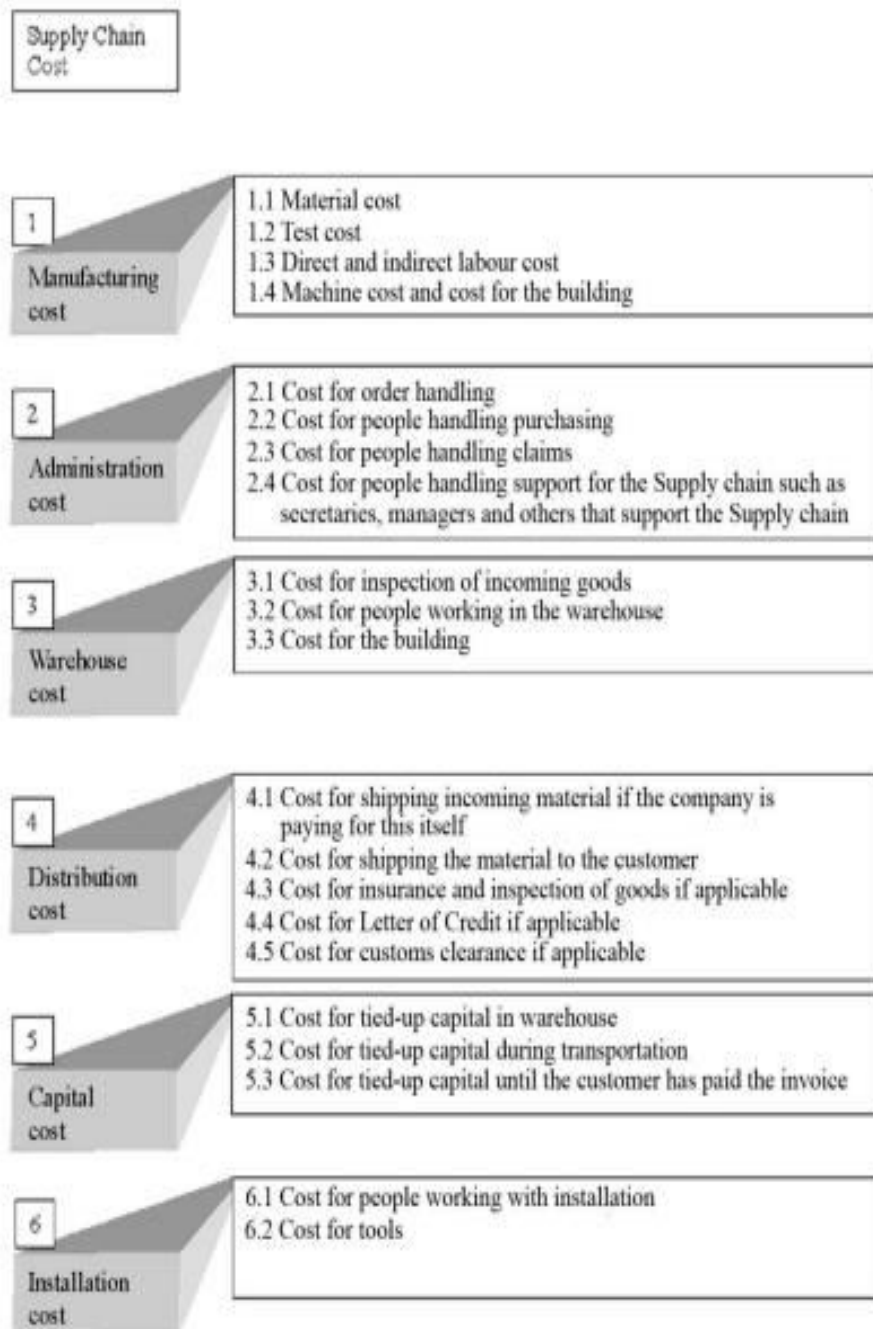


Figure 1. Contents for Supply Chain Cost (source: Pettersson and Segerstedt (2013))

The SCOR model, created and upheld by the Supply Chain Council, is widely recognised in numerous companies. The SCOR model employs various identifiers, including Cost of Goods Sold and Supply Chain Management cost (as specified in the SCOR handbook version 8). The SCOR model is a framework that may be utilised to chart, compare,





and enhance supply chain processes. SCOR offers firms a fundamental process tool for modelling, a database for benchmarking, and establishes a specific set of criteria for evaluating the supply chain. The cost of goods sold refers to the expenses incurred in the acquisition of raw materials and the manufacturing of completed products. This cost encompasses both explicit expenses (materials, labour) and implicit costs (overhead). Total Supply Chain Management Cost refers to the combined fixed and operational expenses linked to the various stages of the Plan, Source, Make, and Deliver activities within the supply chain. The costs included are order handling (Delivery), material procurement (Sourcing), inventory carrying (Indirect Planning), planning/finance (Planning), and information technology costs (Indirect Enablement). The costs associated with Supply Chain Management in the SCOR model encompass a significant portion of the SCC model outlined in Pettersson and Segerstedt's (2013) research and Figure 1. The disparities between the two models lie in the terminology employed for the distinct cost components and, to some extent, the level of assessment. The Pettersson and Segerstedt (2013) approach combines the order management cost with the administration cost in the SCOR model. The measurements in the SCOR model are recommended to be conducted at a highly granular level, which might make the SCOR model appear complex due to the level of information required for measurement.

## **II.OBJECTIVE OF THE STUDY**

The primary objective of this research will be to assess solutions for minimising costs in supply chain management (SCM) with regards to both exports and imports.

## **III.OBJECTIVES OF THE RESEARCH**

- To explore the relationship between supply chain management and strategic cost management, particularly in the context of supply chain strategic cost management.
- To examine the management of supply chain performance.
- To analyse the methods and concepts that can be employed to evaluate and control all costs throughout the supply chain.

## **IV.REVIEW OF LITERATURE**

The topic of supply chain management (SCM) has garnered significant attention from both scholars and professionals in the business world. Supply Chain Management (SCM) emerged in the early 1960s. Supply chain management (SCM) research had a surge in popularity throughout the 1980s and achieved notable progress in the 1990s (Palma-Mendoza, 2014). Businesses are increasingly focusing on their supply networks in order to achieve success. Senior management acknowledged the importance of efficient supply chains for gaining a competitive advantage as early as 1997. Supply chain management is a crucial business operation that significantly affects a company's performance (Pettersson and Segerstedt, 2014). According to Spens and Wisner (2014), it is widely acknowledged that Supply Chain Management (SCM) is highly advantageous.

Multiple definitions of Supply Chain Management (SCM) can be found in the literature. The definitions prioritise a range of subjects. The three primary factors that determine the outcome are customer service, cost, and flow. Pettersson and Segerstedt (2014) state that the primary goal of supply chain management (SCM) is to reduce overall supply chain expenses in order to fulfil a predetermined and unchanging demand. The following items may be included in the total cost:

1. Expenses related to the procurement of raw materials and additional purchases.
2. Costs associated with transportation of goods into the facility.
3. Expenses incurred for holding and managing stock.
4. Cost of travel between different facilities.

Mathur et al. (2018) define supply chain management (SCM) as the strategic management of interactions between suppliers and customers, including upstream and downstream, with the objective of enhancing customer value and reducing overall supply chain expenses. Supply chain management, as defined by Wikipedia, is a collection of strategies employed to efficiently coordinate suppliers, manufacturers, warehouses, and stores. The goal is to ensure that products are produced and distributed in the correct quantities, to the appropriate locations, and at the proper time, all while minimising overall costs and meeting service level expectations. Supply chain management (SCM) aims to improve operations management across all functional areas. Consequently, one objective of Supply Chain Management (SCM) is to enhance quality and customer satisfaction across the whole supply chain, while simultaneously reducing



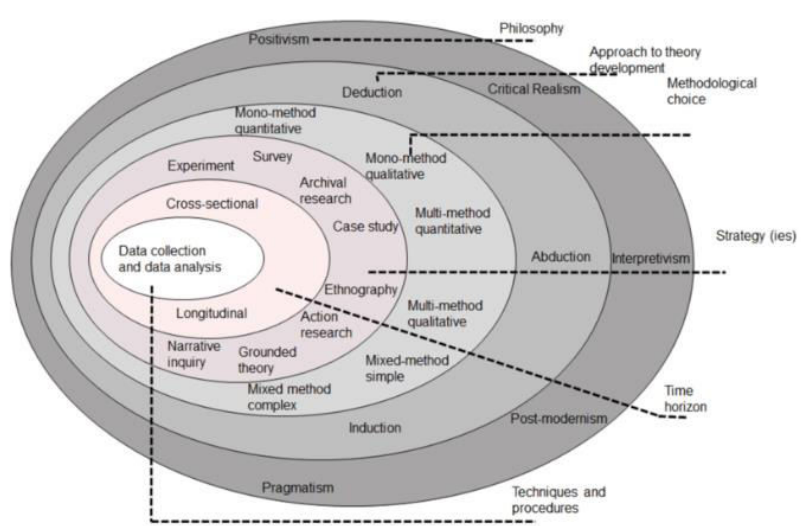
costs (Green et al., 2014). Supply chain management (SCM) is a critical process that serves as an indicator of a firm's performance. Quantifying the expected economic advantages of improved supply chain management is a difficult task. Without first being able to weigh the expenses and advantages, it is precarious to claim that an organisation has become more efficient due to optimisation endeavours. Consequently, utilising cost evaluation approaches might be beneficial for a corporation. In order to have a comprehensive understanding and precise cost analysis, a firm must diligently monitor the entire supply chain. Gustafsson et al. (2019) argue that it is essential to take into account all the flows occurring in the supply chain, from the starting point to the client. The primary goals of supply chain management should prioritise customer satisfaction and service, with cost reduction as a secondary target (Fawcett et al., 2015). Future supply chains are expected to prioritise collaboration and process improvement at the strategic, tactical, and operational levels in order to succeed (Beamon, 2014).

### V.METHODOLOGY OF RESEARCH

The core structure for data collection and analysis will be depicted by the multi-layered "Onion" architecture shown in Figure 1. The Onion facilitates the analysis of choices by emphasising the methods, instruments, and protocols to employ, as well as the possible consequences and alternatives that impact the decision-making process (Saunders et al., 2018). Several criteria, including the duration of data collection and the level of participant access, can influence the decision. Failure to conscientiously evaluate the research framework, which encompasses the approach to behaviour and thinking, may result in the imprudent selection of methodologies and the failure to recognise the inherent biases that impact the interpretation of findings during the communication process. The study methodologies and tools to be utilised will be fundamentally incompatible with the paradigm used. For instance, the random selection of participants, which should ideally be based on particular criteria, will be employed. Saunders' Research Onion proposes that the research process is influenced by six distinct levels.

#### Research Approaches

When a researcher wants to create a hypothesis or conduct a test, they must decide which approach to use. Inductive reasoning and deductive reasoning are the two predominant methods of thinking and making sense, both centred around the process of reasoning that takes place when a conclusion is tested in practice (theory testing) (conclusions are derived from specific observations and theory building). This study will utilise an inductive methodology, which involves analysing specific objectives and is particularly suitable for qualitative data.



Research onion (Saunders et al., 2019, p. 108).

#### Research Methods

Choosing a research methodology entails making a decision between utilising qualitative, quantitative, or hybrid approaches. There are three primary choices available: mono-method, mixed-method, or multi-method. The mono-method strategy involves gathering data by a solitary technique, and subsequently applying appropriate quantitative or qualitative analytic methods. When utilising the mixed approach, a researcher incorporates both quantitative and qualitative data gathering approaches, along with corresponding data analysis procedures. Conversely, multi-method



research involves employing several techniques to acquire and analyse data. The inquiry will exclusively utilise the mono-method approach due to the implementation of a qualitative methodology.

#### ***Duration of time***

The specific time periods designated for data collection are commonly known as the study time frame. The study considers both longitudinal and cross-sectional time frames. The majority of systematic reviews employ a cross-sectional time frame, which typically involves collecting data observations at a certain point in time. In contrast, a longitudinal time frame pertains to the collection of data observations spanning an extended duration, such as months or years (Chintagunta and Labroo, 2020). The longitudinal time frame is considered the most appropriate for this inquiry as it involves the observation of data at a single point in time.

#### ***Methods of Collecting Data***

The evaluation on the Strategies for Cost reduction in Supply Chain Management (SCM) pertaining to Exports and Imports will yield secondary qualitative data for the study. The data will be collected through online sources such as Google Scholar. This study will utilise grey literature to supplement the research articles being examined and address any gaps that may exist. In order to facilitate the collection of data, the researcher will establish primary subjects based on the research objectives. The researcher will not have full access to any publications that are more than 10 years old, duplicates, or not published in English. The researcher will analyse the data using a thematic method, guided by important themes derived from the study's objectives. Utilising thematic analysis is necessary to identify patterns in the gathered material.

#### ***Anticipated Research Results***

This research aims to assist import and export organisations in formulating methods to minimise costs in supply chain management. These companies may depend on the data supplied in this research to implement the various methods presented in this study.

#### ***Research Constraints***

An inherent limitation of the study is its reliance on secondary data, which necessitates the provision of more pertinent and reliable findings. This hinders the process of gathering precise data relevant to the research subject. The secondary data may only provide a fraction of the required information. Some of the methods and goals used to collect the data may not be relevant to the study's topic. As part of the process to overcome these restrictions, the researcher will allocate additional time to thoroughly examine the extensive body of research conducted on the subject. This will guarantee that there is an ample amount of data available to substantiate the study question.

#### ***Ethical considerations***

To ensure the integrity of sociological research, it is necessary to address certain ethical considerations. As a result, the moral ideals outlined below are maintained. Collecting primary data was not required for the study. As a result, it did not have to deal with many ethical considerations. Nevertheless, for selection purposes, all the articles that were analysed and utilised primary data were required to strictly follow the appropriate protocols for ethical approval. By carefully analysing and strictly following the established systematic review method, we were able to prevent any discrimination in the process of selecting articles. The articles utilised will be accurately credited and referenced.

#### **Strategies for reducing costs in supply-chain management**

The cost reduction tactics in supply chain management that are effective for the organisation may appear diverse, but they undergo annual modifications. However, these strategies have been demonstrated to effectively establish a supply chain that is cost-effective and can be expanded and improved over time to align with the growth of the firm.

- ***Stay informed about the current status of the products.***
- ***Utilisation of machinery***
- ***Oversee your surplus inventory***
- ***Identifying the inefficiencies and determining the underlying reason***

#### **Key considerations:**

- Continuously monitoring the products may lead to the production of faulty items.
- The personnel play a crucial part in overseeing supply chain management.
- Machines can be utilised to produce things of superior quality.
- Including transport costs is a crucial aspect in reducing overall costs.



- Appliances can be utilised to efficiently package the products.
- Retaining the surplus inventory will impede the flow of cash.
- Increasing the quantity of aged stocks results in higher expenses for storage.
- The corporation must liquidate the current inventory by selling it at a reduced price.
- Identifying inefficiencies in order to reduce unnecessary expenses
- An analysis of the data is necessary to identify these difficulties.

## VI.CONCLUSION

The objectives of supply chain management cost reduction programmes are to identify the most optimal and economical methods for procuring and storing goods, efficiently transferring them from one location to another, and ensuring customer contentment. Opting for the most affordable carriers and products should not be the initial approach to minimising costs in supply chain management. Costs are accumulated at each step of the order fulfilment process; thus, attempting to reduce expenses could be advantageous. Whenever possible, it is advisable to utilise actual cost rather than standard cost in order to obtain the most precise outcomes. Cost reduction efforts in a specific part of the supply chain may not yield desired results if the potential impacts on the entire network are not taken into account. Contrary to the company's estimate, the SCC may have actually decreased, even though they believed it would be lower due to reduced distribution expenses.

While considering the entire supply chain, distribution costs may fall, but production and capital expenses may increase. This has a detrimental effect on the business. In order to reduce supply chain expenses, it is imperative to possess a comprehensive understanding of them. The organisation can employ the recommended techniques to assess the social cost and benefits of various options and then analyse and compare them in order to determine the most optimal choice. To assess customer satisfaction, it is necessary to employ the SCC evaluation in combination with factors such as lead time to customer and delivery accuracy. It is highly undesirable for a firm to have dissatisfied consumers and a low customer satisfaction score (SCC), as this might lead to a loss of clients due to subpar performance. Bricspac is a limited number of warehouse automation vendors in India. They provide comprehensive warehouse solutions, tailored to specific locations, with expedited delivery and top-notch installation and technical assistance. Their objective is to consistently enhance the quality of service they offer to our consumers, which has contributed to their growth as a business.

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