

Impact of Supply Chain Management in Globalization

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Abstract: Globalization has had a considerable impact on the logistics industry. The supply chain (SC) is the most significant concept in logistics. Managing SC operations has become more difficult as a result of globalization. Supply chains (SCs) are the pathways between suppliers and purchasers. The role of SCs is to safeguard a product from the moment of its creation till it reaches the hands of a customer. Supply chain management (SCM) is a crucial part of companies. It is the main driver of their success and customer loyalty. Marketing is becoming an increasingly important part of the process, balancing procurement by providing critical demand information and cultivating partnerships that help SC operations run more efficiently. These goods must cross international boundaries to enter as many customers as possible. SCs are important for global markets because, without them, suppliers' goods will not be able to reach global markets efficiently. The paper's objectives are to discuss the aspects of Supply Chain Management and Global Supply Chain.

1. Introduction

Producing and selling goods locally was popular in the past because it was the most cost-effective way. In this situation, goods were transported over long distances and were out of reach for many people. Manufacturing has shifted to lower-cost locations as shipping costs have decreased and labor prices have risen in more industrialized countries. For a specific reason: our planet is becoming increasingly interconnected. As global economies become more competitive, competition is shifting away from individual companies and toward entire value chains. Supply chain management has gained popularity in the last century or so.

The focus has been on keeping the whole process simple as compared to the current condition, which is highly complex. The main aim of businesses worldwide is to keep their customers satisfied by providing them top-quality products and services in the shortest of time. Supply chain management ensures that businesses are effective in their approach with different kinds of operations like logistics, information technology, operations management, and manufacturing. It is, therefore, necessary to provide relevant information, recent development, drawbacks, and future advancements related to the supply chain industry. These may allow in creating better technologies that can help businesses to their advantage.

2. Methodology

This chapter explains the scientific methodology we used to write the paper. The analytical techniques we used were analysis and synthesis. The research problem was divided into individual sections, components, and studied them to reveal their nature using analysis as a scientific method. We began by defining the solution's subject - the global supply chain - and then the specific elements needed to be discussed - advantages of getting incorporated into global supply chain. Conclusively, we called the focus to the most common errors businesses make when it comes to global supply chain management. The aim of the study was to weed out the primary, basic, and necessary facts and contexts that could tell us about the phenomenon under consideration.

Using the scientific methods of synthesis, we found the associations, inconsistencies, and interconnections between these earmarked components, and then we were able to replicate the investigation phenomenon with all basic features and relationships. Knowledge was integrated by combining individual pieces making wholes - we isolated the benefits of entering the global supply chain, as well as the drawbacks and issues in global SCM, from the information sources and added them to the individual subchapters in the main chapter results.

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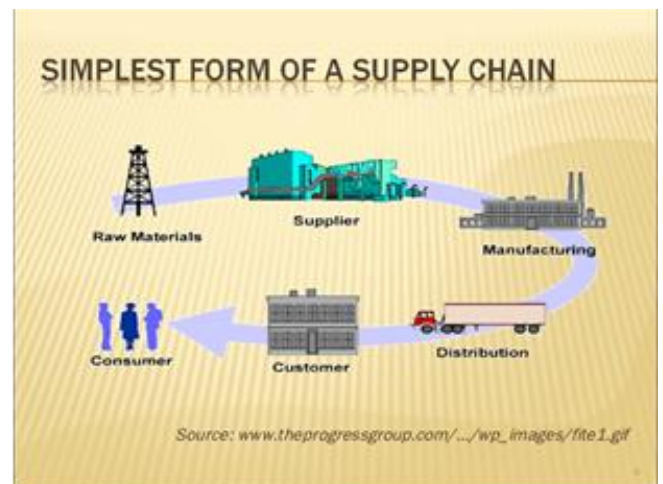


Fig. 1:-Simplest form of a supply chain

2.1 Supply Chain

The supply chain is defined as a network of interconnected links where value may be added. Figure 1 [3] depicts these interactions schematically. They can exist between processes, goods, businesses, and industries, as [4-6] explains. Signifies the following: Reduced complexity and value added activities are found at the bottom of the value chain hierarchy. As you move up the value chain to the industry level, the complexity and value added operations grow. Another definition of the supply chain may be derived from the preceding: it is the integration of information and resource flows via a sequence of value-added activities. Previously, the industry was built on a cluster-based idea that was localised. It has now transformed into a value chain structure with higher geographic dispersion [7]. As a result, the global supply chain's industrial level viewpoint may be described as being characterised by greater complexity while simultaneously being related with rising levels of value added activities [8].

These value chains organise and coordinate production in the primary, manufacturing, and service sectors on a worldwide scale [9]. The industrial representation of the global value chain has become the backbone and primary nervous system of the global economy [10].

2.2 Supply chain management and globalisation

The term "supply chain" has gained widespread recognition as a result of manufacturing's globalisation since the mid-1990s, notably the rise of manufacturing in China. China's imports to the United States increased from around \$45 billion per year in 1995 to more than \$280 billion in 2006.

Since the beginning of time, globalization has necessitated the development of logistics solutions to handle with complicated

networks involving different organisations across many nations under various control [11].

Supply chain management is increasingly being used to refer to strategic difficulties, while logistics is increasingly being used to refer to tactical and operational ones. The Council of Logistics Management changed its name to the Council of Supply Chain Management Professionals in 2005 to reflect the growing link of supply chain management with strategy. They make a clear distinction between logistics and supply chain management [12]:

- “In order to satisfy consumers' expectations, logistics is the component of the supply chain process that plans, implements, and regulates the efficient, effective forward and reverse movement and storage of products, services, and associated information between the point of origin and the site of consumption.” While

- “Supply Chain Management is the systematic, strategic coordination of traditional business functions and tactics across these business functions within a company and across businesses within the supply chain with the goal of improving the long-term performance of individual companies and the supply chain as a whole.”

The topic of globalisation and supply chains has previously been discussed by a number of academics. Some of the solutions are provided in the following paragraphs.

According to Greg Shnerer, a supply chain and logistics expert based in Toronto, understanding the impact of globalisation in the supply chain requires first knowing what a supply chain is and how it functions. Global transportation is an important part of supply chain logistics, and it would be impossible to run a supply chain without it in our globalised and linked world [11].

The pathways connecting suppliers and recipients are defined by Greg as supply chains. Then he compares supply networks to the "behind the scenes labour" that goes into getting a product from conception to consumer's hands. These items must traverse international boundaries in order to reach as many markets as possible. Without supply chains, the items that suppliers manufacture would not be able to reach global markets as effectively, hence they are critical for global marketplaces [11].

Ani Mithra, a supply chain analyst, has the following opinion: The two concepts of globalisation and supply chain management (SCM) are intertwined. To put it another way, they can't live without each other. Globalization provides access to new consumers and procurement sources. However, a global reach necessitates an awareness of many markets, including prospective partners and threats.

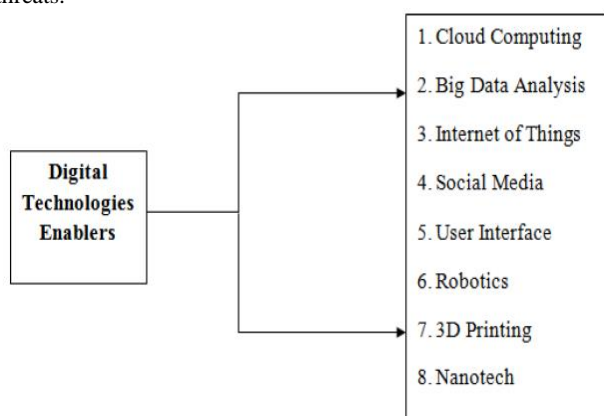


Fig: 2: Emerging technologies that enable digital supply chain transformation.

3. Present scenario of technologies related to Supply chain management (SCM)

It is indispensable for any business to opt for technologies that are new, innovative, and leading-edge. A recent overview study by Prashant R. Nair et al. [1] gives an idea about new technologies used in India. Some of them include internet and web services for the use of communication between partners, using bar-coding in logistics, use of materials requirement planning, and enterprise solutions like

Enterprise Resource Planning (ERP). However, the behaviour pattern observed in customers has changed over the year. In addition to that, the technologies mentioned above have crowded markets and are inadequate for the global economy. As a result, there is immense pressure on supply chain executives to adapt to the digital forefront

4. Haphazard management practices in the global supply chain (GSC) industry

Global supply chains pose new problems that must be considered to optimize opportunities while minimizing risks. As a result, several firms attempting to enter the global market have gone astray. According to a recent study, one-fourth of traditional supply chains in the corporate sector were not inspected for risk management [1]. However, there are still many effective ways of reducing risk and taking advantage of the ample opportunities in the global market. In the discussion below, we have pointed out the haphazard management practices in the global supply chain industry. In addition to that, we have also mentioned some points to rectify such mistakes.

4.1 Opaqueness of the industry

More businesses are realizing the importance of coordinating a large number of carriers and suppliers supplying a variety of products over the world.

Transparency and understanding of logistics activities are becoming increasingly relevant as the amount of import and export grows. Companies can mitigate the uncertainties of a complex international supply chain by enlisting the help of a logistics partner [15].

4.2 Ignoring Incoterms

An organization that enters foreign markets can suffer from financial risks and losses if it fails to learn about its partner's business structure. Before engaging in trade, businesses must comply with basic incoterms. Otherwise, this may result in a cost increase as well as a substantial lengthening of delivery time. Thus it is crucial to determine the risks and the transportation costs associated with trade before finalizing a contract.

With a CFR Incoterm, for example, a business may select "cheaper" products. Transport and terminal expenses must be reimbursed in this situation, even if they are set by the business partners at a high level. There is no way to say no to them. Felix Miletich advises confirming the parties' obligations in-depth with the partner in advance, agreeing to all in a written statement, and sending the documents to their partner or a transporter. Businesses will have disagreements over who pays for what and what products will be kept at the carrier's discretion [14].

4.3 Improper management of inventory

Customers nowadays mostly get their shipments 2-3 days after placing an order. Companies that deal with shipping delays or regular and long travel times miss out on market opportunities [13]. Forecasting good resource management and looking for alternative suppliers are all things we suggest. Working with an experienced logistics company that is familiar with local regulations and procedures and has significant representation in its country may help minimize the likelihood of shipment delays by preventing issues with customs authorities.

5. Key benefits of engaging in the global supply chain (GSC) industry

Certainly, there are drawbacks to the global supply chain. These issues will be addressed in next section. However, the advantages outweigh the limitations associated with GSC. We have listed the top ten advantages of becoming a part of the GSC:

5.1 Excellent goods are readily available

There is an opportunity to procure outstanding goods easily and efficiently, that is of the highest quality standards. Global supply is highly affordable and easily accessible to get great deals on supplies. [1]

5.2 Cost-cutting

Companies that participate in a GSC will lower their product's market value significantly, ensuring a competitive marketplace and their company's economic sustainability. GSC was the first technique, out of the many, for using costcutting practices in supply chains [4].

5.3 Drive to be a successful businessperson

Companies that previously only operated on a local level in their home market now have the pressure to outperform their competitors as well as the earlier version of themselves. There are a plethora of other companies that can make up for the inefficiency of their competitors. Thus, there is a strong motivation to do it correctly the first time and every time [3].

5.4 Reducing the sum of stock on hand

Businesses with a large number of international contacts and suppliers can be able to minimize the amount of inventory they need to maintain. It means they can save money on storage, robbery, and shipping items, among other things. Reduced overall costs contribute to the competitive advantage that a global supply chain provides. [3]

Almost every commodity can now be secured, as it can be manufactured anywhere in the world. Earlier, this was not possible. GSC has made the availability of such items very simple, no matter the distance [2].

5.6 The supply chain must remain operational at all times.

The chain never rests and is always on the move 24/7, due to time differences between countries. People in the GSC are employed on various continents to satisfy supply chain requirements [8].

5.7 New markets and prospects

Joining the GSC also opens up state-of-the-art business opportunities. If a business has procured items from India, then the probability of it exploring other country's markets is high, as it can create better scope for itself. Once it takes this initiative, new opportunities follow [23, 24].

5.8 Taking advice from others

Businesses directly or indirectly work with each other. As a result, this helps them to collaborate as well as make profits. Every country has its unique way of conducting business that adds an intriguing aspect to the GSC as companies can benefit from one another by learning from each other. The possibilities created are immense [11].

5.9 Adaptability

Companies that are part of a GSC have a better possibility of succeeding and even growing through a downturn in the economy. However, their chance to survive it without being in the GSC is bleak. There is a basic rule, which states that if an organization is not working within a GSC network, it is lagging. [23]

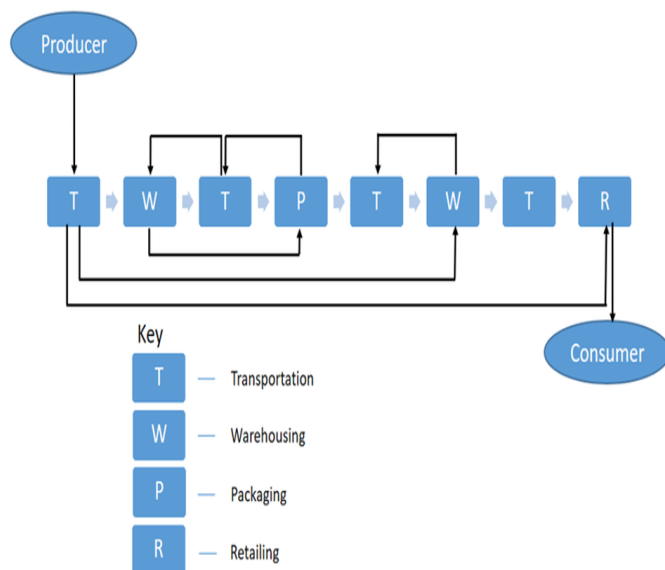


Fig. 4: Logistics and supply chain

5.10 A higher risk of surviving

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6. Conclusions

In this study, we have discussed several aspects of the global supply chain and supply chain management. The current set of technologies used in SCM include cloud computing, big data analytics, IoT, blockchain, 3Dprinting, and many more. The second part discusses the SCM mistakes made by organizations in their practices. The inability of organizations to be transparent, follow incoterms and manage inventory has increased their risks in the GSC industry. However, with the right management strategies, companies can bounce back in the GSC competition. The third part highlights ten different advantages of entering a GSC that can help any business profitable. Lastly, we discuss certain limitations related to SCM that include ever-changing trends, innovation and developments in technology, and political and natural factors. In a nutshell, the findings were as:

1. Many businesses lack a transparent supply chain; a logistics partner is recommended.
2. Businesses lack crucial specifics about Incoterms and the business requirements of their partners; recommendation: thoroughly check the parties' obligations with the partner ahead of time, settle on anything in writing, and give the information to the logistics partner or carrier.
3. Businesses address issues such as shipping delays or lengthy travel times; recommendations include focusing on forecasting, good inventory management, and finding alternate sources, as well as working with a seasoned logistics company.
4. Companies rely only on marine transport and, in the case of failure, choose for the most expensive choice - air travel; recommendation: investigate other options, such as rail travel from Asia to Europe, various mixes of air and sea transport, and others (listed above).
5. Companies are hardly ever prepared for unexpected issues that may arise during the shipment of a consignment to the buyer; recommendation: look further into solvency of Tier 2 and Tier 3 suppliers who supply their main suppliers, know where each component comes from and who manufactures it, and work with the logistics partner to develop a backup plan.

We wanted to highlight the primary advantages that firms may receive by participating in the global supply chain in the following section. Because global supply is so competitive, it is possible to rapidly and efficiently find exceptional items that have been produced to the highest quality

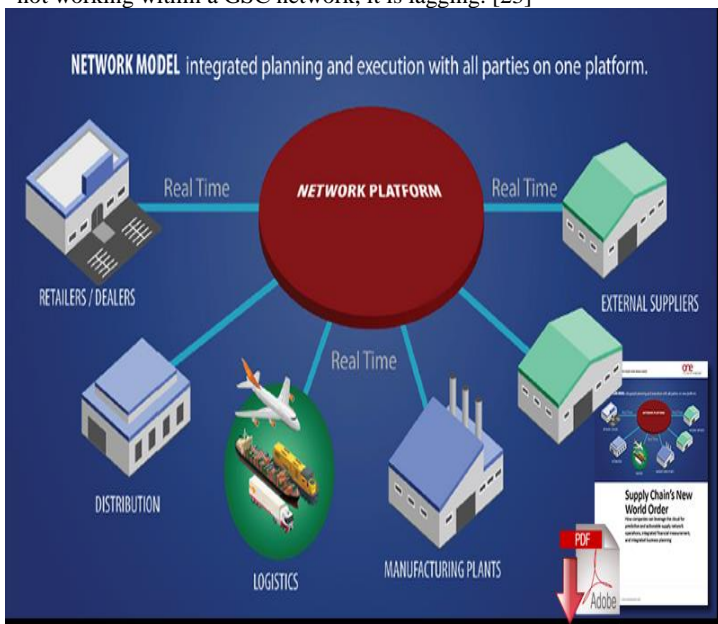


Fig. 3:-Mapping global supply chains

standards. Companies that are part of the global logistics network can reduce their costs. As a result, the market position is more solid, and the company is more competitive. Businesses that previously exclusively operated on a local level in their home market are obliged to enhance their performance when they join the global supply chain. Firms can also learn from others because they work with companies from all around the world. As a result, if company representatives have an open mind and a willingness to learn, they may discover new ways of conducting business, new manufacturing methods, and new distribution systems. Finally, despite the economic crisis, there is a potential of success and possibly growth. Involving a company in the global supply chain is undeniably a wise decision. Of course, there are disadvantages to this option, but they will be addressed in future studies (paper). Geographic distance, particularly in global supply networks, accentuates uncertainty and poses obstacles such as unanticipated interruptions. However, the advantages of a global supply network far exceed any possible disadvantages. We opted to just publish a portion of the findings due to the paper's restricted scope. The following article will be based on more information. In the next study, we'd want to concentrate on the following: The primary drawbacks of being a part of global supply networks; supply chain mapping; supply chain planning system model.

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