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The role of supply chain in achieving competitive advantage

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ABSTRACT

As competition from various firms increases locally and globally, Supply Chain Management and ways to increase its efficiency have been the key focus of various organizations. Improving the performance of Supply Chain Management enables a firm to have a competitive advantage over other organizations. This research focuses on three aspects through which the process of Supply Chain can not only be improved but also serve as an edge over competitors. These key areas include Strategic Supply Chain, Supply Chain Metrics and its impact on Performance and Supply Chain Operations and Technology. The study shows how the overall process of Supply Chain Management can be made more effective through the aspects mentioned above and how they serve as tools towards enhancing the process of Supply Chain Management. The outcome of the research shows that a well-planned and established Supply Chain which minimizes the prospects of errors can result in the improvement of the performance of the firm and gives it a competitive edge over other firms.

Keywords— *Strategic Planning, Performance Management, Information Technology*

1. INTRODUCTION

Supply chain management is considered as one of the most important operations in the business life cycle of an organization. Traditionally, supply chain operations were just considered as individual cost centers which needed to be controlled and maintained. But as the economy and the market grew, the organizations observed that it can also be used for competitive advantage as well. They have expanded to be highly competitive, rapidly changing, interconnected, which reflects the strong forces of the global business environment. The firms believe in delivering services which result in high customer value, focus on delivering products and services which are superior as compared to its competitors. Thus, the supply chain needs to be quicker and efficient in order to add more value and result as a strong factor in contributing to the competitive advantage of the firms.

The concept of competitive advantage is used widely by the organizations where the firms in the industry need to outperform their competitors and maintain a superior business position. The supply chain responsiveness and competitive advantage achieved are directly related or interrelated. Organizations which possess a more responsive supply chain management i.e. the firms which are able to respond quickly with respect to demand fluctuations and customer needs can overpower the uncertainty prevailing in the business environment at lower costs due to shorter lead time. However, to be a real competitive strategy, there needs to be cost-effectiveness also. The firms which fail in achieving this responsiveness in supply chain often incur high costs due to longer lead times. Ultimately, the goods take more time to reach the markets resulting in loss of competitive advantage.

2. STRATEGIC SUPPLY CHAIN

As we discuss at the strategic level, a company's management makes high-level strategic supply chain decisions that are relevant to the entire organization. The decisions that are made should reflect the overall strategy that the organization as a whole is following. According to recent surveys, some business units do not see supply chain strategy as a major concern. Several business units are under the impression that, despite the perceived level of importance of supply chain strategy, it seemed to be non-existent in their respective organizations. Although there are some business units that consider supply chain as a necessary part of their day to day operations, the prevailing issue is that they do not identify the potential to exploit and utilize their supply chain strategies to achieve competitive advantage. In the perception of importance of strategies in supply chain, it is not the industrial characteristics that matter. It revolves more around certain circumstances of the organization within the market.

To all those who think that supply chain operations are just another monotonous process in the business operations, it is highly advisable to change that notion. The supply chain operation of any organization is the core strategy and heart of any business unit or organization. There are several strategies

that can be developed for the sole success of supply chain operations, which eventually will result in smooth and successful business activities. Some of the most important strategies that companies should necessarily adopt, are discussed below.

2.1 Integration

The first step to success is the level of integration that the company and the employees possess in order to achieve the goals of the company. The integration of all the stakeholders in the supply chain process, i.e. suppliers, vendors, internal systems, customers, etc. are essential to have an effective supply chain. The strategy here is to maintain good relationships and a strong network within the various players involved in the supply chain operations. If the organization is successful in doing so, it can then be exploited to be its strategic advantage in the business.

2.2 Competitive Supply Chain

A successful supply chain is a combination of managing the performance, strategic control, information technology, and implementation. The supply chain strategy should focus on various strategic aspects such as:

- Customer satisfaction
- Financial objectives
- Creation of value
- Market competition
- Growth of the business

A combination of the above strategies and their implementation will result in a strong competitive advantage. In earlier days, the supply chain was viewed to be a complex procedure to understand. The vast number of variables and networking involved in the process made it difficult to keep a proper track of the operations. With the implementation of several technological advancements, supply chain has now grown to become the core operation of a business unit. If a firm has to succeed in its overall performance, the first step is to ensure that it has a smooth and efficient supply chain, without any discrepancies.

Therefore, for a company to improve its supply chain operations, the first step is the strategic management of all the variables and implement it in such a way that it holds together the organization as a whole to work towards common goals and objectives. If this is implemented on a large scale, the organization is very close to achieving a competitive advantage.

3. SUPPLY CHAIN METRICS AND ITS IMPACT ON PERFORMANCE

The process of increasing the effectiveness of a supply chain is invaluable to a firm in the long run. Even though countless firms are well aware of this fact, around 42% of organizations are still not acquainted with the various stages of their own Supply Chain procedures.

Most of the business units are ignoring the importance of understanding the performance of their supply chain and the various processes involved to achieve ideal performance. The most important objectives of any supply chain are to provide the right quantity of the product, at the desired quality, in the agreed time period and at the correct location of the customer.

Supply Chain metrics are a measure of the performance of a supply chain. It involves quantifying each step or method involved in the process of supply chain management in order to establish a method of measurement of performance. This can enable the firms to identify non-productive areas as well as techniques of improving upon them. Analysis of Supply Chain Metrics is thus an essential contrivance to ensure prosperity and prevent inefficiency resulting in the downfall of a firm. Some methods of improving performance of the supply chain taking into account the metrics of supply chain are as follows:

3.1 Tender-to-Revenue Cycle

Tender-to-Revenue cycle is nothing but the length of time required for the reformation of the tender designated to the supplier and its conversion to the revenue generated from sales. In other words, Tender-to-Revenue cycle is a measurement of the time required to transform cash given to the supplier to the cash received from the buyer. A review of the tender-to-revenue cycle is important because a menial time period of cycle indicates that the business is enabled to collect revenue faster while an exaggerated time period may indicate towards funds being stuck in the process.

3.2 Inventory Period

Inventory period refers to the number of days or months (depending on the amount of production and sales) it will take for a product's inventory to run out or be completely utilized. Such a measure can help the firm in determining various operations related to production and supply. Keeping storage or an inventory of products can be an extremely vital function especially in case of an unforeseeable increase in the demand of the product. In such a case, excess inventory can be utilized effectively to meet consumer demand. Depending on the situation, inventory of a product may need to be utilized or restocked. A consistent inspection and awareness regarding excess or deficient stock can thus lead to more satisfied customers, increased goodwill of the firm as well creating a solid backbone for facing a situation of exigency.

3.3 Success Grade

Success grade measures the rate of success a company has in terms of its suppliers delivering a product to the shoppers without any hindrance or disruptions in the process. A disruption in the process of supply chain management can result in increasing the tender-to-revenue cycle. It can also lead to late delivery of orders to customers or delivery of damaged goods. Such cases can lead to a drastic change of the outlook of customers towards the company. The customers may start to distrust the organization leading to a downfall of its reputation. Thus, ensuring a high success grade of perfect orders is essential to obtain and sustain customers and prevent depletion of revenue of the firm.

3.4 Conveyance Benchmark

As the name suggests, the conveyance benchmark involves assigning benchmark time period to conveyance of different products. This will help in providing a comprehensive understanding to the firm regarding the delivery cycle of a product through various sources of conveyance whether it is through road, rail, air or water. Comparison of the actual conveyance procedure to the one benchmarked version can lead to identifying the areas of inefficiency and finding methods to maximize benefits and minimize costs.

3.5 Inventory Pace

Inventory Pace is a function which is complementary to the Inventory period. Inventory pace or velocity involves enabling the company to have an ocular image of the amount of inventory which can be sold off to the buyers within a specific period of time. Such a measure is extremely useful for a

company to save costs. It can be determined by the division of the opening inventory by estimated sales which have been forecasted. Through the analysis of this function by an organization can prevent additional expenses involved in redundant inventory which cannot be sold easily. At the same time, it enhances satisfaction of the customers by meeting demand. Thus, analysis of inventory pace is a win-win situation for both the customers and the firm.

3.6 Return Rate/ Reason

Return of products can be a huge loss for the company. This is because costs incurred in inventory and conveyance are not realized as products by sales as the products are ultimately not sold. Thus, warehousing and transportation costs are wasted by the company when a product is returned by the customer. The return rate is a facility which helps in categorizing all possible reasons as to why a customer may return a product. These reasons are arranged in chronological order on the basis of the frequency of their recurrence. The reason behind doing this is to focus on these specified areas in order to prevent any causes which may result in consumers returning a product that has been delivered to them. By eliminating all these causes, the number of order returns can be made negligible due to which the company will incur lesser amount of losses.

3.7 Outstanding Revenue

Outstanding returns indicates the quantity of revenue which has not been received despite sales of products. There can be various causes of outstanding revenue including, but not limited to; credit sales and errors in the payment procedure. A high level of outstanding revenue can result in creating complications in the cash flow generation of the company. This can complicate the company accounts and lead to the demonstration of lower profits than the one which has been generated by the company. An underestimation of profits of a company can impact the company's policies and procedures as well as deteriorate the number of investments contributed by investors.

3.8 Reliability of Freight bill

The process of shipping can be extremely costly and time taking. An incorrect freight bill is detrimental to the supply chain process. It can result in a delay in delivery of goods as well as an increased cost of conveyance in the form of shipping. A company should make sure to draft a freight bill with no errors in order to save time and costs. Thus, keeping an eye on the freight bill can reduce avoidable costs. It can also help in avoiding distrust as the company is accountable for the process of billing.

4. SUPPLY CHAIN OPERATIONS AND TECHNOLOGY

The supply chain operations comprise of major functions and processes undertaken by a firm which have a critical impact on the profitability and sustainability of the business. Technology plays an important role in enhancing the efficiency of supply chain operations, making the process faster. The gradual improvements and developments in the field of technology have directly contributed to delivering a better infrastructure for supply chain operations which enhances the visibility of needs between the consumers and the business. It also increases the expectations which the customers possess from a specific business entity in terms of after-sales response or effective delivery slot. The information flow in the supply chain operations comprises of the physical flow of goods and raw materials as well as the interdependency which exists between the firms in the supply chain. Through this information technology, the supply chain managers make important decisions such as inventory management, transportation, logistics, etc. To determine the inventory level required, there is various information required such as the demand of customers in the market, the existing inventory level in the warehouses, the availability of raw materials with the supplier at the moment, etc. For determining the transportation costs and its policies, various information is required such as the shipping locations, routes to reach destination, various road and transport taxes, rates and quantity of materials to be shipped, etc. There is some important information which is also required while making the decisions regarding warehousing or storage such as capacity of warehouse to be constructed, daily operating cost level, whether to keep the warehouses near the suppliers or near the customers i.e. the potential market for the products, tax implications, etc. Information technology helps in providing all this information in real-time to the supply chain managers so that the effectiveness is maintained in the operations of the business.

The implementation of information technology in the firms provides various benefits to the organizations as a whole such as achieving economies of scale, taking managerial decisions according to the data available which can have a huge impact on the future profitability, processing of transactions, maintaining the records of employee's work, etc. The information technology enables the firms to use decision support systems which helps the managers in making the right decision for the firm. This provides supply chain management to evaluate and process different techniques to reach optimization in the supply chain.

IT also forms the core of supply chain management where different processes such as procurement of raw materials, inventory management, and order management and transportation facility available are delineated. The business intelligence imparted by the information technology continuously monitors the warehouse or storage platforms, analysis, and data consolidation in order to measure the performance of supply chain operations and to check whether improvements are made or not. These all information and functions are essential in the supply chain operations to achieve the performance targets and goals it wants to achieve.

Firms that fail to take a holistic view of infrastructure- the physical and informational assets required to run a supply chain sometimes make investment decisions that are disastrous in the long run. As we take the example of HUL, it conducted a study that identified all the ways in which a firm could reduce the supply chain expenses without effecting the consumer service. The results of the study revealed that 80% of the firm's potential savings were locked up within the physical infrastructure of their network.

As we notice certain statistics, those who thought that the supply chain had no relation with competitive advantage, 89% of them had made a very low investment in the infrastructure and technology. A variety of patterns have been observed in infrastructure and information technology. One of the patterns shows that supply chain management has made very low investment in information technology and does not identify the need to do so. The other pattern shows that the business units have made a very substantial level of investment in information technology and will remain the same for next few years. This is the most dominant pattern where the organizations have made high investments in supply chain infrastructure and information

technology and will continue to do so. Clearly, these units use supply chain as their main tool to gain competitive advantage.

Several patterns in the market show that the business units have made no sort of investment in infrastructure and information technology but have a strategy for future investment on a large scale. They aim to become a dominant investor in the supply chain, but it can be highly uncertain as the future economic conditions or the market conditions cannot be predicted. There are some technologies which can be specifically used in the supply chain operations in order to achieve effectiveness and efficiency in the overall operations such as EDI (Electronic Data Interchange) which enables the firms to interchange documents between computers in the same format. Internet is known as the network of the networks and presents the basic level of technology in order to gain access to information sources. Through the various tools available on the internet, the organizations are able to research various topics in which it wants to improve its performance or increase value. Some national and multinational firms also utilize the Intranet technology which is a network structure within an organization, backed by the internet. The firms use this technology in order to access information about other branches within the city or the country. For example, the future group uses its intranet network in order to derive important information about its Big Bazaar branches located across the country such as inventory level, employee performance, inventory procurement, etc. This information derived by the organization helps in taking strategic decisions about various aspects of its business effectively. Another technology used is World Wide Web which enables the multimedia documents to be connected on the internet through hyperlinks and can be used freely by the administrator without using complicated commands or protocols. For internet transactions, Extensive Markup Language (XML) is used which does not specifically address any industry. However, Rosetta Net is a model which is used in high tech industries and validates transactions between the producers and suppliers of goods or raw materials.

5. CONCLUSION

As we observe the market place, there are various types of players, some of them being strong while others may be weak. Each type of player has its own level of importance towards understanding supply chain. Every organization may not be capable of investing in supply chain strategies, metrics and information technology. But any organization which is able to implement the combination of the above elements is definitely on the path to achieving competitive advantage. The level of investments in any business can only be adjusted in the supply chain level. If the company makes the required level of investment to enhance supply chain operations, it is highly beneficial for the organization as a whole in the long run.

6. REFERENCES

[1] Apics.org. Supply Chain Strategy Report.

[2] Durcevic, S. (2018, September). 10 Supply Chain Metrics & KPIs You Need for A Successful Business. Retrieved from Datapine: https://www.datapine.com/blog/supply-chain-metrics-and-kpis/

[3] Investment the key to optimizing supply chain networks. (2015, May). Retrieved from Cips.org: https://www.cips.org/en-SG/supply-management/opinion/2015/may/investment-the-key-to-optimise-supply-chain-networks/

[4] Marion, G. (2019, March 8). Is Supply Chain Your Competitive Advantage? Retrieved from the balance smb: https://www.thebalancesmb.com/is-supply-chain-your-competitive-advantage-2221295

[5] Myerson, P. A. (2015). Introduction to Supply Chain and Logistics Management made easy. Retrieved from informed: http://www.informit.com/articles/article.aspx?p=2339632&seqNum=4

[6] Suhong Lia Bhanu, R.-N. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. Science direct

[7] Supply Chain Metrics for Data-Driven Leaders. (n.d.). Retrieved from klipfolio: https://www.klipfolio.com/resources/kpi-examples/supply-chain

[8] researchgate.net. (n.d.). Retrieved from Research Gate: https://www.researchgate.net/publication/265251123_Competitive_Advantage_through_Supply_Chain_Responsiveness_and_Supply_Chain_Integration

[9] Sanderson. (n.d.). Retrieved from www.obs-logistics.com: https://www.obs-logistics.com/blog/how-technology-changed-supply-chain

