

SUPPLY CHAIN OPTIMIZATION IN THE FIRMS TO CREATE COMPETITIVE ADVANTAGE

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Abstract

Industries are passing through a very difficult phase after liberalization and globalization as they have to face a stiff competition for their survival. Organizations having strong financial background, international marketing network, advanced technology, synchronized supply chain and reputation can only find ways and means for their survival and growth. Consequently, long-term success depends on how well the firm suits consumer expectations by altering the design of supply chain that would increase its effectiveness & competitiveness as compared to its rivals in terms of operation, expense, quality and versatility. Optimizing this balance is an ongoing process for those businesses that are part of the supply chain network.

Keywords: Supply chain, SWOT analysis, SAP-LAP analysis, Optimization

1. Introduction

Supply chain management has been defined by the Council of Logistics Management as: “Supply Chain Management is the systemic, strategic coordination of the traditional business functions and the tactics across these functions within a particular company and across businesses with the supply chain for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole.” The scope of SCM is definitely broader than just the bodily transportation of material “from one location to another location.” This is also movement of money, creating and deploying more intellectual capital and information, or as many people call it “knowledge work.” In modern times, supply chain management has seemed as a development industry in academia, technology services and consulting. Suddenly everybody seems interested in knowing every single thing about managing a supply chain. There are several reasons for increasing interest in supply chain management by academia, consultants, service providers and industry.

2. The Assessment Criteria:

The Six Levels of Supply Chain Excellence

An understanding of the excellence of supply chain is compulsory before examining how it is performing, Supply Chain Excellence is must. Supply Chain Quality is a six-tiered mechanism that should be accomplished stepwise. These levels are:

Level 1: Business as Usual. At this point, an organization is working hard to optimize its individual functions. Specific departments have the goal of being the strongest department in the business. The emphasis isn't on organizational performance. Instead, Each organisation's item tries to operate well on its own. For the applications used, each division / department uses its own approach.

Level 2: Link Excellence. Where a company aims to achieve excellence in supply chain, it have to see inside itself, eliminate and blur all departmental / facility boundaries, and begin a continuous improvement journey without end. Individual interconnection of supply chain has to be built for making it most secure, reliable, sensitive and comprehensive it can be. Undertakings of supply chain perform well if the connections inside it do its best. Increased internal efficiency will lead to increased effectiveness of the supply chain.

Level 3: Visibility. To bring excellence in the supply chain, it is required that all connections function together. Links function better when information is exchanged. Visibility lays the basis for knowledge exchange. This minimizes surprises in the supply chain as it offers the knowledge connections required for understanding continuing process of supply chain.

Level 4: Collaboration. Through correctly implementing technologies and real collaborations, cooperation is accomplished. The supply chain should work together to decide how to better fulfill customer demands. The supply chain, as a whole, works towards optimizing satisfaction of consumer while reducing inventories.

Level 5: Synthesis. Synthesis is a method of uninterrupted development, incorporating and unifying a supply chain. Synthesis uses the momentum of transformation to counter a competitive market & to make sure loyalty of the customer. This is from the synthesis that true supply chain quality is achieved, as this helps a supply chain to achieve unprecedented output levels.

Level 6: Velocity. After synthesis, the goal converts to speed up the institute or increase the speed of supply. This is the current excellence acceleration of supply chain.

3. Case Study

To evaluate supply chain performance of case company, a survey is done in which following measures have been measured:

- 1. Delivery precision:** Stuff delivered according to contract.
- 2. Lead-time:** The time from order startup until it's ready.
- 3. Cost:** Measuring all forms of costs e.g. capital cost and distribution cost.

4. **Inventory turn over:** Measurements regarding tied up capital e.g. number of days in stock, tied up capital in money and ITO.
5. **Internal performance:** Measurement of production yield, ordering time for entry and leveraging power.
6. **Customer satisfaction:** Measurements of any form of customer service.
7. **Quality:** Quality from a customer's perspective. For example complete number of representations and products substitutions.
8. **Service grade:** Steps on the level of service to customers. Example fill rate and back order.

4. Results

- Analysis found that responding company practices are at the mature stage.
- Analysis also showed that case company is giving best performance in the following areas of performance of supply chain: flexibility, delivery or cost and responsiveness. Product delivery rate is meeting the requirement of the customer fast (almost all the time).
- Based on earnings before interest and taxes (EBIT), company is more profitable. Besides having lower cost of goods sold (COGS) as a percentage of revenue, company is continuously working to reduce COGS, whereas the costs of their competitors increase.
- Company is following the best in class practice to improve in "overall" supply chain management. They follow Make and deliver process of supply chain

5. SWOT Analysis of Existing SC

Technology is the driver of change till the market conditions are favorable. In the absence of competition, company has enjoyed the monopoly but with the increase in competitors, the situation turned to be competitive and ultimately turbulent. Market share, profit margins, and quality levels are affected a lot.

Strengths:

1. International reputation
2. State of Art Technological support.
3. Adherence to TQM, TPM, JIT, and ERP Solution. etc
4. Committed manpower and team spirit.
5. High level of commitment from top management.
6. High level of flexibility in changing products and processes.

Weaknesses:

1. Dependence on OEM's.
2. Strict adherence to Indian government rules and regulations.
3. Costly imported components.
4. Low Export.

Opportunities:

1. Establishment of more OEM's.

2. Growing demand.
- 3 Growing exports avenues in the neighboring countries.

Threats:

1. Squeezing profit margin.
2. A big unorganized sector.
3. In-house manufacturing by new MNCs or imports.
4. Escalating prices of raw materials.

6. Conclusions

- i.** The financial indicators and other performance measures indicate that the company is hard pressed because of the rising prices of input resources, alarming high degree of competition and wide choices available with the customer due to rapid product innovations.
- ii.** The organizations have made efforts to manage socio-technical change by changing their technology, by change in work culture, by providing education and training to employees and by changing structure by delayering etc.
- iii.** There is a lot of scope for cost cutting through strategies like reducing number of suppliers and giving large volumes of orders to them, improving supply chain management, and reducing inventory. Cost cutting cannot be achieved by treating it as a strategy to put pressure on the employees. Rather cost cutting can be achieved by the use of better technology, systemic changes and improving other areas, as well.

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