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EMPHASIS OF QUALITY MANAGEMENT IN SUPPLY CHAIN MANAGEMENT

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ABSTRACT

Quality in a product or a service is not what the supplier puts in. It is what the customer gets out and is willing to pay for. Quality management is the act of overseeing all activities and tasks needed to maintain a desired level of excellence. This includes the determination of a quality policy, creating and implementing quality planning and assurance and quality control and quality improvement. Supply chain management is the streamlining of a business supply side activities to maximize customer value and to gain a competitive advantage in the market place .This paper focus on the importance of quality management in supply chain of an organization.

Keywords: Quality Management, Supply chain management and competitive advantage.

Introduction:

Quality management is the act of overseeing all activities and tasks needed to maintain a desired level of excellence. This includes the determination of a quality policy, creating and implementing quality planning and assurance, and quality control and quality improvement. It is also referred to as total quality management (TQM).

In commerce, supply chain management (SCM), the management of the flow of goods and services, involves the movement and storage of raw materials, of work-in-process inventory, and of finished goods from point of origin to point of consumption.

Objective:

- Examine the importance of quality management in supply chain management.
- Examine the strategies to implement quality management with supply chain management.

This study is primarily a desktop overview of existing literature, research and knowledge.

Literature review:

Some studies define the integration between quality management and supply chain management as the concept of Supply Chain Quality Management – SCQM (Lin and Gibson, 2011). From the point of view of quality management, design supply chain could be recognized as providing quality products and services across every organizations in the supply chain, to clients expectations. Robinson and Malhotra (2005) stated that SCQM is the formal coordination and integration of business processes involving all partner organization in the supply channel to measure, analyze and continually improve products, services, and processes in order to create value and achieve satisfaction of intermediate and final customers in the marketplace.

SCM assumes a methodical and integrative approach to managing the operations and relationships among different parties in supply chains, in other words, integrates all parties along the value chain into one whole organism and manages them as the assets of a wide company.

Principles of quality integrated with supply chain management:

1. Customer focus

Customer focus is the core principle and idea of TQM because quality effort comes of customer's needs and ends with customer's acceptance. In supply chain circumstance, customer includes not only the end user but also many in-between users, such as suppliers, manufacturers, sellers, etc. However, more than half of the quality problems in supply chain are resulted by specifications because of the inadequate communications between the members of supply chain. In many cases, the procurement specifications released by buyers are equivocal while suppliers dare not to argue against buyers on the specifications in the bidding process. Therefore, the core enterprise must pay attention to the needs and expectation of end users, and all the members of supply chain must pay attention to the needs and expectation of their backward users. The needs and expectation of end users should be deployed layer upon layer in the whole supply chain system. The end users will satisfy if all the member of supply chain can satisfy the needs of their backward users.

Moreover, the operation efficiency of supply chain system can be improved through the satisfaction level of the end users. In supply chain quality management, some traditional tools of TQM are also effective. For example, we can use Quality Function Deployment (QFD) to identify the distinct and potential needs and preferences of users.

2. Leadership

The effective of quality management depend on the effective of leadership because quality effort can get actual effect only with the recognition and support of the leadership. In supply chain circumstance, the core enterprise play as the leadership since it establishes the development strategy and operation targets of supply chain affect the actual efficiency and effectiveness of the quality effort of all the other members. Therefore, the core enterprise must act as leadership to consider adequately the needs and expectation of the other members, establish a clear, realizable and coincident holistic target, and then lead and inspire the other members to strive jointly for the target. At the

same time, the core enterprise should foster more leaders of TQM in each layer of supply chain and make them take their responsibility zealously.

3. Involvement of people

The exertion of enthusiasm and creativity of all the employees is the precondition of the actual effect of quality management. In supply chain circumstance, an up-and- coming excelsior work atmosphere should be established to inspire the enthusiasm and creativity of the employees of all the members. Each employee should understand his/her role and responsibility in the supply chain system, solve the problems forwardly as mastership, and learn the principles, skills and technologies of TQM and ISO9000. Here, we can foster the ethos of self-motion and self-knowledge in supply chain through 5S, i.e. seiri, seiton, seiso, seiketsu, and shitshke. Furthermore, we can make all the employees participate into supply chain quality management and strive for the satisfaction of users jointly through the establishment of QC teams that cross function or even enterprise.

4. Process management

The focus of modern quality view is the process quality management but not the product itself of traditional quality view. It is the requirement of the quality management system of ISO9004:2000 and the essential difference of modern and traditional quality view. In each step of supply chain, there are many correlative processes, such as procurement, logistics, production, inventory, selling, service, etc. These processes have their own independent objectives and programs. There are usually conflicts among the objectives and programs. Therefore, the processes and their mutual effects should be identified and managed to ensure the harmonious operation of supply chain. Then, all the processes, especially the key processes, can realize high quality, i.e. small variation, small waste, and more increment, through the continuous improvement and total quality control in all the nodes of supply chain system.

5. System management

The application of system approach in quality management is to view the quality management system as a big and holistic system, identify and manage the sub-systems respectively. Then, the coordinated effect and mutual promotion among the sub-systems will make the whole effect greater than the sum of the improvement of each sub-system and improve the validity and efficiency of the realization of final targets. In supply chain circumstance, enterprise should confirm the mutual dependence relationship among the processes in supply chain system, break the boundary among supply chain members, construct and integrate the processes in supply chain system. Then, many well operation sub-systems can be constructed to collocate, the resources rationally among the sub-systems.

6. Continual improvement

Continual improvement is one of the focuses of modern quality research and practice. Enterprise must improve the quality of product and service continually and reduce the cost to make customer satisfactory. In supply chain circumstance, the pressure of continual improvement is more and more pressing because the market competition is more and more hard. Not only the core enterprise but also the other members, such as suppliers, sellers, and logistics providers, must improve their product and service respectively so as to construct the continual improvement of products and services all over the supply chain process. Then, the continual, stable and harmonious ability of quality assurance can be established. Furthermore, the core enterprise and other members must find the ways and practices improving performance in or out of supply chain through benchmarking to make the continual improvement speed fast than the one of rivals.

7. Factual approach to decision making

The sufficient and adequate data and information is the foundation of making right and effective decisions. Up to now, many enterprises have began to collect and deal with all kinds of data and information by utilizing many advanced information technology, e.g.,

EDI, MRPĊ, ERP, POS, Intranet/Extranet/Internet, so as to provide foundation for making effective decision. In supply chain circumstance, enterprise should collect data and information of not only itself but also the other members of supply chain to record and analyze the current operation situation of each member. Therefore, the potential problems in any step of supply chain can be found duly according to the results of data analysis. Then, the corresponding correct and timely decision can be made to avoid or rectify the problem.

8. Mutually beneficial supplier relationships

What impact can suppliers have in achieving quality? TQM authorities recommend that organizations work directly with raw material suppliers to ensure that their materials are of the highest quality possible. Currently, at least 50 percent of TQM organizations collaborate with their suppliers, in some way to increase the quality of component parts. Often these organizations send out "quality action teams" to consult with their major suppliers. The objective is to help suppliers use TQM to analyze and improve their work processes. Suppliers can contribute to quality in a number of other ways. Therefore, the organization and its supplier are mutually dependent. Maintaining the mutually beneficial relationships between them can improve the ability of creating value both of them. In supply chain circumstance, the product quality is performed and ensured by all the members of supply chain because the production, sales and service process must be performed by all the members. Therefore, the task of supply chain quality management is not only to establish the product inspection system and comprehensive evaluation system of suppliers, but also to strengthen the mutual beneficial partner relationships with suppliers. The core enterprise must realize the following activities:

1. Identify and select the main suppliers, reduce the scale of supply system, and realize small supply base management.

2. Investigate the requirements of customers and develop new product jointly with suppliers.

3. Share information, technology, and resource with suppliers.

4. Admit the improvement and achievement of suppliers.

5. Take joint improving activities with suppliers.

6. Ensure the conformity of quality system between core enterprise and the other members, including basic conformity (e.g. program files, technology specification, process interface) and advanced conformity (e.g. quality target, quality policy, and quality culture).

New Challenges in Global Sourcing

The root causes for these quality risk issues are:

• Supply chains become more complicated due to globalization

• More materials are sourced globally

• Supply chains are stretched across country boundaries

• Products become more complex

• Supplier outsource production to other firms and it may continue

Strategies for integration of QM with SCM:

(1) Manage inventory investment in the chain;

(2) Establish supplier relationships;

(3) Increase customer responsiveness;

(4) Build a competitive advantage for the channel; and

(5) Introduce SCM solutions and enable information technology

Once the ISO is implemented, the company recognizes there is still room for improvement:

1. Managing inventory investment in the chain.
2. Has implementation caused an increase in stock rotation?
3. Has implementation caused a decrease in lead time?
4. Establishing supplier relationships.
5. Has ISO implied an improvement in your relation with your supplier?
6. Increase customer responsiveness.
7. Has implementation been favorable in term of customer loyalty?
8. Has implementation improved customer satisfaction?
9. Has implementation decreased customer complaint?
10. Build competitive advantage for the channel.
11. Reducing logistic cost.
12. Decreasing non conformity cost.
13. Meeting delivery deadline.
14. Increase sales.
15. Increase market share.
16. Introduce SCM solution and enable information technology.

Conclusion:

The paper examined the integration of quality management with supply chain management and how new principles of quality management, evolved with the increasing complexity of supply chain management, in the era of globalization.

A number of practices have been used by the companies for the sake of giving full satisfaction to the end users of the goods and services. But supply chain management in the current times has become a very complex and tedious process .The processes of verification of quality in supply chain management has provided edge to many of the companies in terms of revenue, profits and brand management. But as said earlier quality with supply chain management is a continual process.

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