

Hyundai essay example

[Business](#), [Company](#)



Abstract

Supply chain activities require proper coordination and a good network of logistics that ensure prompt acquisition of materials, good control of manufacturing processes and distribution of products to dealers or retail consumers. It is important for the management of Hyundai to adopt total quality management, quality improvement, and strategic planning among other models of leadership to ensure production of quality items that meet customers' satisfaction. Besides, having a good sales and marketing strategy is essential for sustainability of Hyundai operations. Lean Six Sigma is a concept that can be adopted and implemented in the company as an approach to ensure sustainability. This concept emphasizes the need to monitor activities to detect problems, remove wastes and variability, increase the speed of operations, and reduce costs. This has an overall effect on quality improvement, customer satisfaction, and a general increase in revenue. Thus, Hyundai should adopt such a concept in its endeavor to realize sustainable supply chain activities.

Introduction

According to George (2010), Lean Six Sigma is a concept that combines two key methodologies that aim at improving the design and quality. Lean is a model that originated from Toyota Company in the 1950s while Six Sigma originated from Motorola in the 1980s (Nave, 2002, pp. 73). Lean approach emphasizes the importance of improving the flow of activities and doing away with wastes and processes that add no value to the production system. For example, in Hyundai Motor Company, bad parts, flaws, and defects in

quality that may need repair arise as wastes and therefore should be purged (Hahn, Duplaga, and Hartley, 2000, pp. 112). Whereas the Six Sigma concept accentuates identification and elimination of the causes of defects and variations in the organizational processes to achieve optimal performance that meets customers' needs. Thus, the two have been combined to ensure continuous improvement in the organizational system and processes (George, 2010, pp. 62). Actually, Lean Six Sigma has been a good approach in difficult economic times in order to hasten the achievement of results. The process of monitoring activities allows the company to predict outcome and respond in good time to unfriendly conditions that appear in the system. Organizational policies and guidelines should be flexible enough to allow modification and even change of activities to allow for improvement in the processes.

Nave (2002) argues that Lean Six Sigma focuses on improving the quality of services offered to customers. By improving business processes and removing undesirable characteristics, the customers get a delight. There is also focus on enhancing teamwork and improving the decision-making process that focus on quality adjustment. Thus, Lean Six Sigma is a potent quality and process improvement concept (Besterfield, 2013, pp172).

According to Pepper and Spedding (2010), there should be documentation of the work process and flow of activities. During this process, monitoring of variations should be done so that wastes can be identified and eliminated soonest to improve clientele expectations.

Hyundai is a Korean automobile manufacturing company with a global market of auto motor products (Hahn, Duplaga, and Hartley, 2000). Hyundai

Motor Company embarked on a mission to develop and expand its supplier base soon after the Korean government passed favorable trading policies in 2011 (Kalson, 2012, pp. 23). The company has continued to strengthen its supply chain by adopting initiatives and strategies that aim at improving its products and product development processes. This paper examines the supply chain activities of the Hyundai Group and how the Lean Six Sigma methodology can be utilized by the corporation to ensure sustainability especially of the supply chain operations.

Hyundai supply chain

The Hyundai motor company is part of the Hyundai group conglomerate. The company has continued to experience growth and expansion of its auto production activities since its establishment in the mid 1940s.

Reconstruction and transformation initiatives have enabled the company to recuperate from a dismantled state to a dynamic engineering and automobile manufacturing and distribution corporation in the world. Hyundai Motor Company (HMC) started by producing cars especially the Ford trucks and Cortina cars for the domestic market. It later on established branches in the United America that concentrated on infrastructure, public works, and car assembly because of the availability of the market and an increased demand for housing, cement and other infrastructural products and services. The Hyundai Group has expanded its operations to include steel production and shipbuilding, enabling it to gain a significant share in the regional market (Park, Hong, Kim, and Hwang, 2011, pp. 238).

Hyundai Group has established business partnerships with institutions like the Siemens group of Germany especially because of its engineering

activities and British Leyland Company among others. This has further led to the production of quality auto parts (vehicles and ships) that sell to both the local and world markets. Actually, one fifth of the Hyundai production is consumed in the global market. The company has a network of dealers in American, European, Asian, and African markets especially in situations where there was no principal automobile manufacturer or supplier (Shetty, 2011). This logistics and sales network has a consolidated vibrant sales and marketing strategy.

Hyundai obtains most of its production materials from overseas operations including joint ventures and investments among others. The company also concentrates on intricate and diversified projects while utilizing technology during production and distribution. For this reason, Hyundai develops technology endowed and low-priced crafts and vehicles like the Hyundai Pony, Sonata Sedan, and Chrysler that have enabled it to penetrate the Arab, United States, and Canadian markets. Moreover, Hyundai uses superior technologies in the automotive industry for example, uses of robots, smart cranes, automated vehicles, and vision systems for locating, picking, and sealing.

However, its overseas markets face decline because of the effects of the global economic crisis, labor strikes and increased competition. Coordination of supply chain activities of Hyundai Motor Company may not be perfect since there may be the generation of a lot of wastes and variability.

Nevertheless, Kim (2005, pp. 124) maintains that there is a need to ensure effective communication and mutual understanding is maintained among all the entities involved in the production and distribution activities. This not

only ensures proper monitoring of activities but also enhances client satisfaction. Currently, Hyundai Motor Company has regional centers, dealers, and retail shops in many parts of the world including Asia, North America, Africa, Europe, South America, and Oceania. According to Lansbury, Kwon and Suh (2006), Hyundai automotive industry has a consolidated local and a worldwide supply base that has seen its manufacture and distribute more than 400, 000 quality cars.

Need for sustainability

Hyundai Motor Company (HMC) emphasizes on having integrated and well-coordinated mechanisms of monitoring production and distribution activities. This is important to ensure sustainability of the supply chain activities. HMC conducts regular meetings and review of policies to ensure supply chain activities are well coordinated. However, a number of behavioral, environmental, and structural challenges need to be overcome. For example, Krause (2008, pp. 85) states that there are several forms of wastes that the company should deal with. One of them is producing too much or too early such that there is too much supply with less demand.

The second source of wastage arises from transportation and delays when moving materials and finished goods from manufacturing plants to warehouses and finally to dealers. The third area of wastage the company should deal with is the process design and inventory that may carry unnecessary activities. The last source of wastage is under-utilization of the human resource and poor ergonomics that may lead to wasted like errors and defects. For this reason, the company should focus on reducing general variability, improving the flow of activities, optimizing and adding value to

operations and products (Haneback and Tracey, 2003, pp. 150).

It is noteworthy that some regional centers of the company have adopted production planning and scheduling, which reduces line stoppages and improves maintenance of an inventory supply (Harrison, 2001, pp. 414).

Moreover, use of bar coding has improved the identification and tracking of automotive parts, removed errors, and enhanced cost reduction measures.

Tools and techniques important for sustainable supply chains

Lean Six Sigma concept is a strategy of reducing costs while increasing revenue. This approach streamlines the company's systems so that supply chain activities are timely and well coordinated. This in turn improves efficiency and the company can produce and sell more at a reduced cost (Snee, 2010, pp. 10). According to Arthur (2011, p. 34), reducing time spent on inventories, production, waiting, movement of persons and materials among other time wasting activities is one way of promoting sustainability. The concept helps the company reduce costs by scanning the system and removing activities that are not important in improving quality and performance (Besterfield, 2013, pp. 133). Lean Six Sigma first point of emphasis is on waste reduction. That is, removing non-value/profit adding activities, processes, and materials and discarding them. Besides, Six Sigma can be used to diagnose problems and hitches in the processes. Thus, defects in products and services can easily be identified and removed or managed. Consequently, this reduces costs and improves the output that augments satisfaction of customers (Taghizadegan, 2006, p. 89).

Lean Six Sigma also touches on staff development and empowerment. The

methodology lays emphasis on the importance of having an active, results-oriented team whose members are ready to participate in process and quality improvement. It further fosters trust, transparency, and team spirit in the company. Taghizadegan (2006, p. 90) argues that training of staff across departments is important for developing skills and competencies essential for production and quality improvement.

Besides Nave (2002) indicates that Lean Six Sigma a five-step approach abbreviated as DMAIC. That is an organization can seek to remove waste, reduce cost, improve quality, and increase revenue by first scanning the system and defining (Define) the problem and find out what can be done to meet the requirements and satisfaction of customers. Besides, according to Pagell, Krause, and Klassen, 2008, p. 82) it is important to satisfy the internal customer demand before going external. Secondly, the organization should map (Measure) the current activities and seek to collect data. Thirdly, the management should aim to explore the causes of the problem (Analysis) and come up with measures of solving the problem (Improve); Lastly, Lean Six Sigma accentuates the need to have a control mechanism that sustains the results.

According to Tang, Teo, and Wei (2008, pp. 88), management of a supply chain requires a combination of several concepts including total quality management, strategic management, capacity management, and procurement planning and execution. However, Hyundai concentrates on sales planning and forecasting, procurement and logistics, production planning and control, and sales and marketing of its products. During production, the raw materials are transformed and synchronized using

technology into parts that can be assembled into usable machines (Vasu, 2009).

Continuous process and quality improvement are another technique important in supply chain management. Some of the problems that have faced Hyundai in its supply chain activities are delayed in shipment of production materials as well as the finished products. Some elements of inefficiency, waste generation (for example, scrap, and broken pieces) and increased cost of production crop up in the supply chain activities (Wright, Suh, and Leggett, 2009, pp. 164).

The company could also benefit from utilizing a combination of quick response, just in time, efficient consumer response, co-operation, and collaboration as a way of improving speed, efficiency, and building beneficial customer relationships. Furthermore, Lean Six Sigma encourages the management to use half of the productive labor, half of the space available, and half of the engineering hours to generate the product. This ensures limited use of resources and hence guarantees some degree of sustainability.

Hyundai can use the five Ss technique that encompasses Sort (organization), Set in order (tidiness), Sweep (purity), Standardize (cleanliness), and Self-discipline. This is commonly known as the Kaizen technique (Durieux, 2008, P. 380). The technique stresses on the importance of continuous improvement in the organization systems and can be represented in the form of charts showing the steps Lang (2006, p. 213). Other tools of Six Sigma include flow chart diagrams, check sheets, Pareto charts, and cause-effect diagrams. Flow charts may be used to represent the flow of processes,

steps, products, and/or customers. Whereas check sheets can be used to determine the magnitude and frequencies of particular problems in the system. Pareto charts represent data in a ranked pattern. Thus, through such a tool one may know and identify the activity with the most severe effect. On the other hand, cause-effect diagram can be used to diagnose and isolate origins of a problem Lang (2006, p. 212).

Six sigma tools applicable to Hyundai, recommendations/implications

Utilization of the Lean Six Sigma methodology by the quality and process improvement team can for sure lead to increased efficiency and effectiveness in the production and distribution activities. This can in turn boost the company's revenue while reducing production costs. The concept lays emphasis on minimizing sources of wastes, integrating activities and building partnerships, continuous improvement, and efficiency of labor activities.

It is important for Hyundai to embrace and prioritize on customer safety and the ultimate quality while maintaining efficiency (Chao, 2007, pp. 12). Thus, Hyundai should aim to procure the right amount of materials, at the right time and location while utilizing the right quantities in production to minimize waste generation.

Collaboration is also essential in supply chain management. Establishing beneficial partnerships is a key factor in improving the organizational capacity. Partnerships also help to penetrate and remain sustainable in competitive markets (Durieux, 2008, pp. 381). Furthermore, the company benefits from the diversity of ideas and expertise. Relationships can be

developed between suppliers and customers, or dealers and customers. Such relationships should be focused on waste and cost reduction with an overall aim of quality improvement.

Removing wastes and non-value adding activities should be a culture of the company. However, if wastes are being generated from people with reduced levels of knowledge and skills, capacity development initiatives and approaches should be adopted to train employees and equip them with the necessary competencies (Spiegel, 2003, p. 55).

In order to remain competitive in the global market, Hyundai would need to reinforce its network of suppliers and develop a marketing strategy that will deliver customized products to potential customers. Remodeling of existing dealer outlets and opening up new retail stores can also improve its supply chain base (Pagell, Krause, and Klassen, 2008, p. 76). Furthermore, Vasu (2009) adds that integrating activities and maintaining proper channel of communication can enhance safety level, reduce time wastage and often lead to greater productivity.

Research and innovation plays a crucial role in sustainability of a company. It is through research that the company can manufacture products and offer services that are based on identified needs, tastes, and preferences. Kalson, (2012, pp. 20) argues that research and technological advancements have led to the development of automobiles that are eco-friendly. This indicates that continuous research and development has a positive effect on quality and performance improvement. Thus, Hyundai should establish more research and technology centers that can conduct research and design products that are suited for the locally available markets. Shetty (2011)

argues that quality planning should be based on the needs of both internal and external customers. Such needs can only be identified through continuous research that provides the basis for designing standards and measures of performance. Moreover, it is important for the company to follow and adhere to the International Organization for Standardization (ISO) guidelines. ISO 9000 and 14000 standards relate to quality guidelines and standards of industrial production and environmental management respectively. Thus, adherence to such quality standards can enhance the company's competitive capability as well as improve control its impact on the environment.

According to Lang (2006, p. 213), lean layouts (visual representation of production activities and processes) can be used to enable workers in one area monitor work activities in another area. This enhances time saving since similar activities can be processed at the same time while reducing duplication of labor and equipments. According to Arthur (2011, p. 35) and George (2010, p. 23), the Deming's way is one approach to supply chain managers can adopt to coordinate and direct activities. The Deming's model proposes continuous improvement, adoption of a new philosophy, on-job training of staff, having a transformative leadership, reducing departmental barriers, eliminating fears and quotas, involving everyone while promoting personal improvement and spirit of workmanship. Thus, it is important for Hyundai to forge a quality model and instill the quality attitude/culture in its employees (Haneback and Tracey, 2003, p. 149).

According to Tang (2006, p. 212), flow chart diagrams provide a visual representation of a process and therefore can be used to make comparisons,

ascertain patterns, and highlighting trends. Thus, can provide a good tool for process improvement and hence ensure sustainability. Check sheets can also be used to identify patterns in the wastes, defects, or problems in the production process. Thus, check sheets can act as a quality control tool that can be used by Hyundai.

Conclusion

The Lean methodology is faster, more efficient, and leads to quality improvement at a reduced cost. It is achieved by eliminating waste or unimportant activities during supply chain management. On the other hand, Six Sigma provides an effective methodology in solving organizational problems. Thus, Six Sigma leads to improved quality of products and services, which results in greater customer contentment. It also increases the reputation of the company and hence the customer base.

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