Chapter 9 and 10

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# Chapter 9

## Discussion

Decision making is an integral part of managerial life. At every organizational level, managers are responsible for making decisions, on which day to day business operations and long-term actions are based. Organizational decisions can be divided into three levels, strategic, managerial and operational level. Strategic decision making is the most crucial of all as it involves developing strategic plans to achieve organizational goals and objectives. Such decisions have implications for long-term business operations. Managerial or tactical planning is done at the middle level of management and deals with the short-term plans and procedures for the organization. Operational level decisions are routine decisions critical for achieving the operational goals of an organization.

## Assignment

Artificial Intelligence (AI) is the area of computer science that deals with creating intelligent machines, competent enough to work like humans. Such machines that work and act like humans have always been portrayed in science fiction movies and books. AI has become an essential element of the technology industry and it has been adopted by the largest organizations of the world. Some of the traits of AI include planning, speech recognition, problem solving and reasoning. AI is progressing rapidly in the realms of facial recognition and driverless cars. The boundless and powerful technology of AI has also been used in military and cyber domains to reduce the vulnerabilities in a cost-effective way. At DARPA Robotics Challenge, Robots and AI technology is blooming. This program is aimed at saving the lives of others and reaching the areas where it is too dangerous for humans to reach in the case of disasters and emergencies.

The goal of implementing AI-based technology is to make one-third of ground military forces autonomous and to enhance their operations in order to save human lives from natural and man-made disasters. The DARPA Grand Challenge program was developed to leverage American ingenuity to design vehicles based on AI technology that can be used by the military forces. Utilizing the technology of AI-based vehicles, the lives of American soldiers can be protected by not sending them in the dangerous areas in case of any calamities. Some large disasters makes it impossible to provide timely and effective aid and human force. In addition, there is a huge risk involved in the health and well-being of American soldiers. Owing to these facts, military needs ways to create the machines capable of doing difficult tasks in the degraded and dangerous environments. Despite the degraded communication in a disaster environment owing to high latency and intermittent connection, AI technology allows effective operations and communications. It is expected that the technology of AI will keep on progressing and military and civilian AI will keep on developing applications and machines to increase the effectiveness of their operations.

# Chapter 10

## Discussion

Procurement is the process of purchasing goods, supplies or services for the organization to fulfil the business model. Procurement does not merely involve the process of purchasing but it also includes the development of quality standards, creating purchase orders, negotiating prices, looking for suppliers and inventory management. It is a basic element of the supply chain management of a company. If the procurement gets delayed, the cost of procuring increases and the procurement manager fails to ensure timely procurement, the whole supply chain management process gets disturbed. For instance, the furniture making firm remains unable to complete order of a piece of furniture if the required materials required are not provided in the given time.

## Assignment

The bullwhip occurs when some misleading information about the product the demand of a product passes from one party to the other throughout the supply chain. It is a distorted distribution channel phenomenon resulting from the supply chain inefficiencies. The bullwhip effect shows how the small fluctuation in demand can result in the larger fluctuations at the higher level of wholesale, distribution, manufacturing and raw material supply. The outcome of the bullwhip effect is the form of stumbling supply chain because the demand for goods is based on the demand from the company but not the actual customer demand. There are many underlying causes of the bullwhip effect such as forecasting errors, the behavior of top management of some retailers, operational causes such as individual demand from each company involved in the supply chain (Balasubramanian, Whitman, Ramachandran, & Sheelavant, 2001).

ETSY is an online retailer for craft and hand-made goods. It is a platform that allows the crafters to sell their products on a platform. The bullwhip effect can impact this platform without any doubt. It can impact the stock of goods of ETSY in many ways. For instance, the bullwhip effect will decrease the inventory if the demand is lower than the actual stock of goods. If the demand suddenly increases it will result in stock out since the products are already low in the inventory and it is not possible to create and supply products immediately. On the other hand, if the demand for a product suddenly rises for a time period. The company demands the crafter to produce more goods in order to meet the increasing demand and to ensure that the stock does not run out. The crafter creates more products on their end and in this way wrong faulty forecast can result in high production at the producer’s end.

The bullwhip effect has negative consequences for both the company and the crafters. One of these consequences is stock-outs because due to the bullwhip effect the retailer misses out sales and impacts the reputation of business negatively. Occasionally, it results in extra inventory and leads to waste if the products are perishable. It also results in intense relationships between the seller and company because of pressure on sellers owing to the faulty demand forecast.

# References

Balasubramanian, S., Whitman, L., Ramachandran, K., & Sheelavant, R. (2001). Causes and remedies of bullwhip effect in supply chain. *10th Annual Industrial Engineering Research Conference, Dallas, TX, May*.