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**QANT 610**

Assignment A3:

**Supply Chain Management**

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**INTRODUCTION**

The main objective of supply chain management is to build a chain of suppliers that focuses on maximizing value to the ultimate customer. There can be a low cost strategy or a quick response strategy or a differentiation strategy of supply chain management. But supply chain management carries a huge amount of risk with itself too as problems in the supply chain can react to disruptions in processes, controls and environment.

**QUESTION 1**

Dell uses the direct sales method for distribution primarily via the Internet. Options displayed over the Internet allow customers of Dell to select from a wide range of choices and select either recommended product configurations or customize them. The Assembly begins once the orders are placed. And for managing the supplier side, Dell has made special Web pages from suppliers where suppliers can view orders for the components they produce and also check the current level of inventory of that component with Dell. This allows the suppliers to plan based on the actual end customer demand and this in turn allows Dell to build-to-order for its customers. Thus, an exceptional supply chain network is formed from the supplier of the components to Dell.

**QUESTION 2**

Through the direct sales method customers place their orders overs the Internet and Dell starts with the assembly as soon as it receives the order and the product cycle for Dell is very short if compared to others in the industry. And Dell’s price is also cheaper as compared to retail stores because there aren’t any carrying or holding costs of the raw material or the finished product.

Dell’s model also has cash flow advantages with direct sales cutting the share of the distributor and retailer margin and thus allowing Dell to increase its own margin and in collecting the accounts receivables too Dell is very quick as it collects payment in a matter of days after the products are sold.

And to improve the operations performance Dell has designed its order processing, products, and assembly lines in such a way so that customized products can be assembled in a matter of hours. This allows Dell to postpose its assembly until an order is placed and Dell maximized the benefit of this postponement by focusing on new products for which demand is difficult to forecast and thus Dell is better able to match supply and demand.

**QUESTION 3**

The main disadvantages of Dell’s direct sales model are that it results in higher outbound shipping costs than it would have been if Dell had been selling though distributors and retailers. Dell sends its products directly to the customers from its plant after assembly and many of these orders are small mostly consisting of one laptop order while manufacturers selling through distributors ship their finished goods through economies of scale, using large shipments via truck to warehouses and retailers, with the end use providing the final portion of the delivery.

**QUESTION 4**

Dell is able to compete with a retailer who already has a stock with Dell being cheaper in price as the retail stores have additional costs because of their brick and mortar model. The brick and mortar model in simple words describes the physical presence of the business while Dell works from virtual space. Competing firms have already assembled products filling their distribution channels and Dell starts to manufacture a product only after it has received an order for it.

Because of this low level of inventory, Dell is able to operate its business with negative working capital because it manages to receive payment before it pays its suppliers for components and because of Dell’s built to order model Dell has designed its order processing, products, and assembly lines in such a way so that customized products can be assembled in a matter of hours whereas the competitors have large product cycles in months.

**QUESTION 5**

Bullwhip effect is when stable demand becomes lumpy orders through the supply chain. It refers to a trend of larger and larger swings in response to changes in demand. Dell has constructed special Web pages for suppliers, allowing them to view orders for components as well as current level of inventory of those components at Dell. This allows suppliers to plan according to the customer demand. Dell’s supply chain deals with the bullwhip effect by always keeping enough stock of components with itself so that it can manufacture a product as soon as the order comes in and the product is ready to get shipped. Dell also has the ability to increase production on a short notice as it has designed its order processing, products, and assembly lines in a very strategic way so that the product cycle is very short thus Dell is able to cater with the changes in demand very conveniently.