Summary of Agile Supply Chain Management

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With the case study of Apple.Inc

The sharp fluctuation of consumers buying patterns forces the traditional supply chain to evolve. Agile Supply chain management (ASCM) emphasises on the flexibility and quickness to manage operations from supply chain entity based on real-time data. This summary is to explain how ASCM's responsiveness can enhance cost-efficiency and productivity using Apple.Inc as a case study.
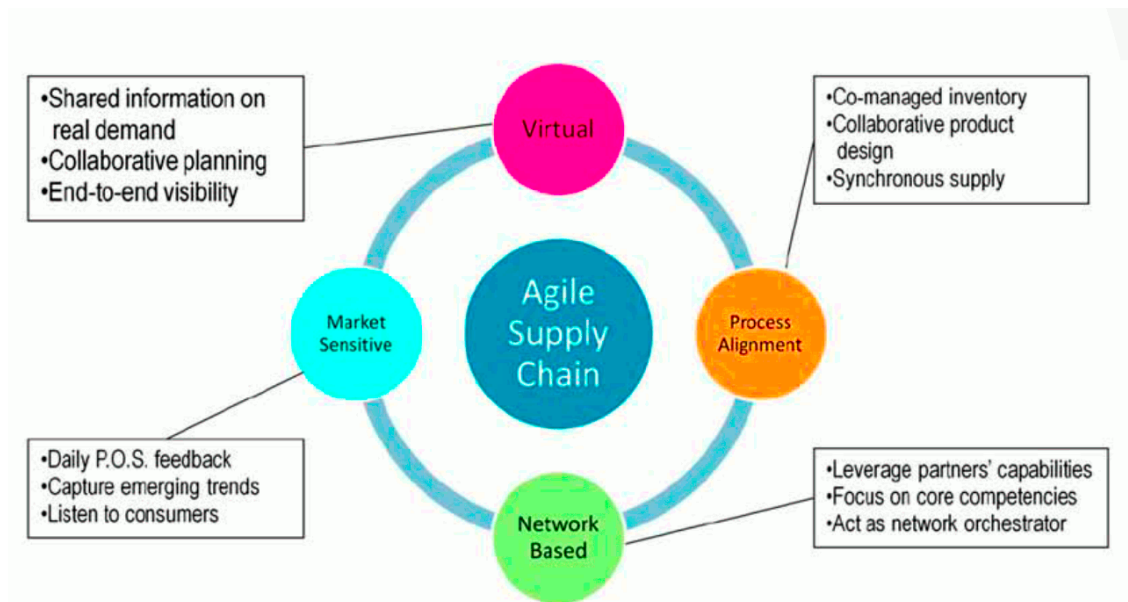

Figure 1. Agile supply chain framework (Harrison, A. C., M. ; Hoek, R. van, 1999)

Utilising ASCM is what makes Apple to be the world's biggest corporation. The characteristics of ASCM are to be responsive and flexible to meet customer needs (Lu, 2011). Apple's innovative products create uncertain market demands. Thus, Apple's strategy is to utilise ACSM to manage the fluctuation. Under the leadership of Tim Cook — the Apple's CEO its revenue in 2019 reached 260.17 billion (Statista, 2019) with Gartner — the world's leading research company categorising Apple in "Master" for years (Gartner, 2020). Therefore, with knowing the reason why Apple is an excellent example, the framework proposed by Alan Harrison (Figure 1) illustrates how Apple uses ACSM. Virtual integration, process alignment, dynamic network, and market sensitiveness constitute the framework.

Apple relies on market sensitiveness. It means how quick a supply chain responds to the market change. Innovation products tend to have shorter lifecycle time due to uncertainty in supply and demand (Goldman, 1982). Apple treats its products as dairy, the value diminishes as freshness date looms (Lu, 2020). The faster they sell the products, the more agility it entails. Apple is able to gain its sensitiveness by creating a forum (Apple.Inc, 2020) to collect customer's feedbacks and seized as much sales data as possible to predict the trend. This information eliminates waste of excess inventory and foresees potential shortages.

Collaborative process designs give Apple competitive advantages. The internal processes like Forecasting synchronises external process like Manufacturing. Using Pull strategy (Conspecte, 2020), when sales departments forecast any market change which triggers many other operations in the supply chain to response. Therefore, Apple is flexible to steer the ever-changing market direction. The process is triggered as soon as customers make orders. This economises and utilises the warehouse capacity at optimal levels and Apple's cash is not tied up on inventory, giving them competitive edges.

Virtual integration works even faster by blurring the traditional boundaries and roles in the value chain:

| suppliers | manufacturer | customers |

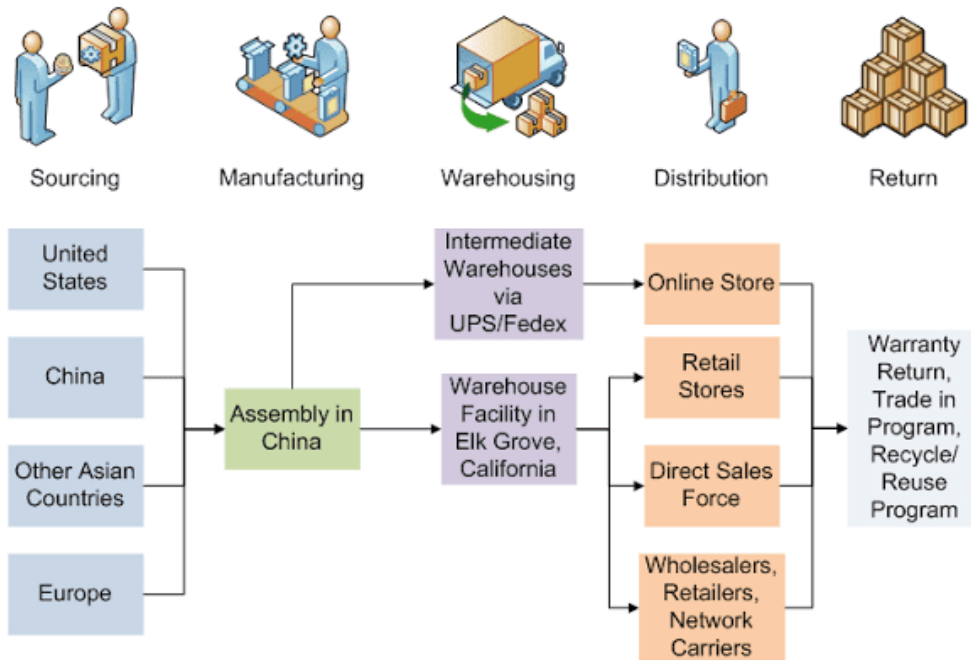*Figure 1. A dynamic network of virtual integration (Magretta, 1998)*

An agile supply chain requires shared information with a dynamic network. The market forces to form a dynamic network amongst suppliers, manufacturers, and buyers. This structure, in figure 2, is bonded together. For example, Apple outsources its manufacturing processes. Hundreds of suppliers send its components to China for assembling the products like iPhone (Appendix). These parties are a form of dynamic chain. Dynamic also means that information should be updated to all parties together spontaneously, which defines a term called virtual integration. Michael Dell thinks in dynamics network, business partners should be treated as if they're inside the company (Magretta, 1998) in which Apple is able to do so. A huge task like producing iPhones is divided into small ones and distributed to manufacturers who performs their core competencies. Each activity requires Apple to facilitate these entities by exchanging real-time data gathered from customers and disclosing high-level information to establish a shared goal. This form of integration can only be deployed via a sophisticated information system. If the market has a sudden change, Apple could instantly establish a switch of connection. Therefore, the market forces the close-knitted bond amongst manufacturers (both upstream and downstream), suppliers and customers and ensure every party is of the same performance level along the market moves.

The above analysis concludes why and how the world's richest company manages its global network, information systems, coordination amongst supply chain parties to act agilely in order to meet customers' demand.

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Appendix

Sourcing · Manufacturing · Warehousing · Distribution · Return

United States → Assembly in China

China → Assembly in China

Other Asian Countries → Assembly in China

Europe → Assembly in China

Assembly in China → Intermediate Warehouses via UPS/Fedex

Assembly in China → Warehouse Facility in Elk Grove, California

Intermediate Warehouses via UPS/Fedex → Online Store

Warehouse Facility in Elk Grove, California → Retail Stores, Direct Sales Force, Wholesalers, Retailers, Network Carriers

Online Store, Retail Stores, Direct Sales Force, Wholesalers, Retailers, Network Carriers → Warranty Return, Trade in Program, Recycle/Reuse Program

Appendix 1: Supplychainopz. (2020). Apple's supply chain process. Retrieved from https://www.supplychainopz.com/2013/01/is-apple-supply-chain-really-no-1-case.html