

Agile Approaches On Large Supply Chain Management Projects In Large Organizations Member

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Abstract—

For being able to quickly adapt the condition of change the supply chain of agile management in large organization is create to be maximum flexible. The organizations that want to be able for adapting the external changes of economics like changes in technology, changes to customer demand or economic swings used this methodology. The organization that implements the agile supply chain can quickly adjust their sales, source and logistics. It is being a major part of large organization.

Keywords- agile; software development; organization; flexible, change, adapt.

I. INTRODUCTION

On a daily basis for good management of supply chain entity operates the supply chain of agile management in large organizations basically refers to the use of quickness, competency, responsiveness and flexibility. Martin Christopher reported that as differ from lean supply chain, the supply chain of agile uses updated information and real-time data. For improving the overall productivity and efficiency of provided entity against demand forecast agile supply chain uses the data related to current operations and that are the real time data [4].

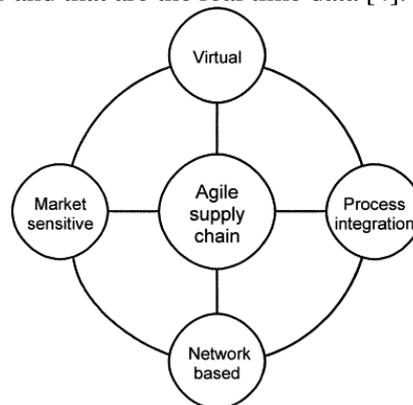


Figure 1: Agile Supply chain [3]

The agility can be described as wide capability of supply chain that embraces logistics processes, value chain configurations, organizational structures, information systems in specific environment [5]. Flexibility is the basic characteristic of an agile supply chain. This characteristic is interpreted through the supply chain of two sided. Structures are not fixed and flexibility means configurations from the supply chain inside. As the needs increase it may quickly transform.



Figure 2: Inventers are low but agile company offer higher service levels

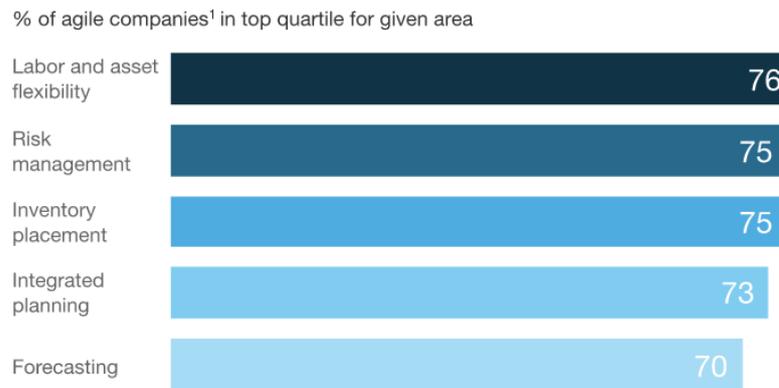


Figure 3: In many areas agile company works well

II. LITERATURE REVIEW

in 2008 Thakkar et al. proposed that to establishing agile supply chain management and to improve competitive edge of firm for sustainability of company the Supply chain management (SCM) as a strategic mechanism becoming critical. In 2012 Wu et al., in 2014 Reefke et al., in 2006 Varma et al., and in 2015 Wang et al. presented in its studied that SCM is a very ambitious task. In 2004 Palaniappan described that in the market to find possibilities that combine in the changes types, the systems are struggling to find chances. In 2013 Nagarajan et al. and in 2014 Julian et al. proposed that because of shifting technology, knowledgeable customer, short life cycle of product and globalization the market of today is very turbulent so market and business environment are facing volatility and many uncertainties. For several companies in each stage of process agility examination is a required action. In 1998 Rogers and Tibben-Lembke introduced approaches to companies optimize reverse logistics. By using mathematical methods it increase efficiency and decrease cost [6].

III. BUSINESS AGILITY

Same as the agile supply chain the agility in business have the capability to maintain momentum, adapt the environment and respond quickly. In the supply chain the agility is particularly important. The way in which products are delivered and produces uses the agility. With the help of the agility in supply chain the business can improve its productivity. It also helps to enhance the efficiency of the business [7]. There are basically two types of supply chain named lean supply chain and agile supply chain. Several differences are there in between lean and agile supply chain. The differences are described in the further sections.

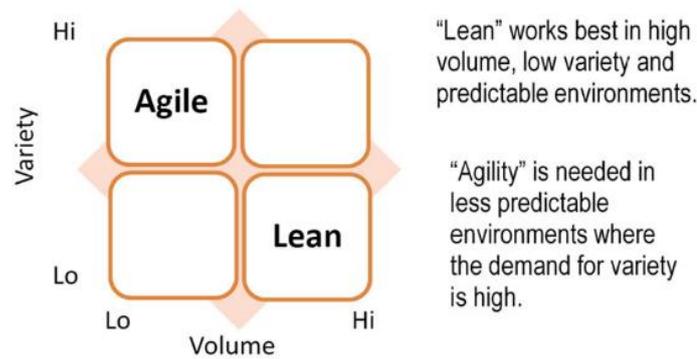


Figure 4: variety and Volume observation [8]

IV. THE CONCEPT OF SCM

In both project and supply chain management the major objective is to develop skills, abilities and knowledge using dynamic and important disciplines in present corporations. The coordinating procurement and project delivery systems and development of new project included in skills of project management. to create the value-creating supply chain networks the Supply chain management based on logistics, purchasing, integration of service operations and manufacturing, and distribution that enable organizations [9]. All the complicated factors like services and goods of supply chain are manages through supply chain management (SCM). It is a very complicated task to transfer the product from manufacturer to shipper to supplier to shipper to buyer. It is a very challenging task to make this process cost effective [10].



Figure 5: SCM flow

V. DIFFERENCES OF LEAN AND AGILE SUPPLY CHAIN

The previous supply chain traditional factory chain is defined as lean type supply chain. At low cost produce high volume is the main objective of lean supply. By lowering the waste and reduce the cost of goods it add the value for customers [11].

By establishing a supply chain, using basic market research and determining an appeal of product it can decide whether to adopt a agile or lean supply chain strategy. The business gets more successful supply chains when the business focus on demand of customer, taking into account wider economic factors and take a broader view of the market [12].

Distinguishing Attributes	Lean Supply	Agile Supply
Typical products	Commodities	Fashion goods
Market place demand	Predictable	Volatile
Product variety	Low	High
Product life cycle	Long	Short
Customer drivers	Cost	Availability
Profit margin	Low	High
Dominant cost	Physical cost	Marketability cost
Stock-out penalties	Long-term contractual	Immediate and volatile
Purchasing policy	Buy materials	Assign capacity
Information enrichment	Highly desirable	Obligatory
Forecasting mechanism	Algorithmic	consultative

Table 1: differences of lean supply and agile supply chain [13]

VI. DEMAND CHARACTERISTICS

The variability of demand in terms of ‘predictability’ determined by demand characteristics. In a supply chain selecting the approach between agile or lean is a complex task. For the benefits many organization use combination of agile and lean supply chain. Demand characteristics are shown in figure 6 [14].

(Supply characteristics) Long lead times Short lead times	<i>Lean</i> Plan and optimize	<i>Hybrid</i> De-couple through postponement
	<i>Kanban</i> Continuous replenishment	<i>Agile</i> Quick response
	Predictable	Unpredictable

Demand characteristics

Figure 6: Demand characteristics of lean and agile supply chain (Christopher and Towill, 2002 [1,2])

VII. SUPPLY CHAIN GENERIC STRATEGIES

When the lead time is greater than predictable demands the approach of lean supply chain is used on the top of the left hand box. In term of cost and uses of assets the lean supply chain presents the transport facilities it can be optimized. At the corner of bottom left hand the demand is not predictable and lead time is less so it requires ‘quick response’, thus it uses agile supply chain management. [15].

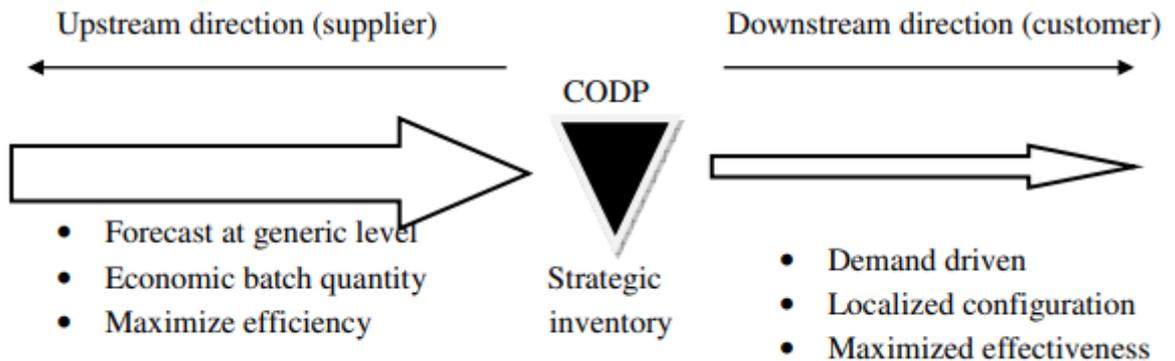


Figure 7: CODP of hybrid supply chain (Christopher 2005) [4]

To provide competitive benefits it requires complete loyalty to customer, defined by Perry M. in 1996. With the customer an organization focuses on following factors:

1. Find the same as requirement
2. For changing the demand of customer respond quickly and be flexible
3. Set goal to complete satisfaction of customer
4. To exceed and meet the demands design logistics
5. The customer should get easy access to organizations
6. Always keep in touch with customers, competitors and potential customers
7. Make sure about the satisfaction of customer do after sale review
8. For better value and quality get a reputation

VIII. AGILE SUPPLY CHAIN COMPETITIVE STRATEGIES

By competitive strategy of an organization it can determine the position of organization in the market. Through understanding the needs of customers and predicting changing market conditions a winning competitive strategy is founded.

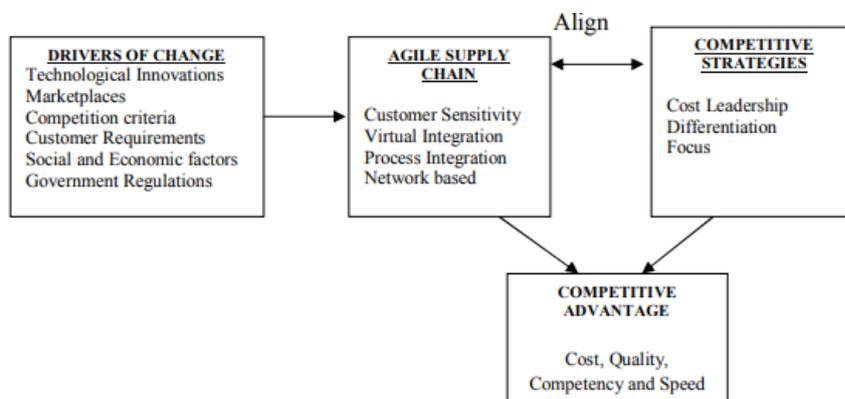


Figure 8: Competitive Strategies of Agile Supply Chain [17]

IX. AGILE SUPPLY CHAIN MANAGEMENT (ASCM) DEVELOPMENT STEPS

To develop an ASCM framework the steps are given below:

1. Create a agile team

To create an agile supply chain management framework creating a team is the first step. To better align output of supplier with requirement of customer this team determine strategies. For achieving better outcomes it designs a process that is aligned to need of customers. It can use as an alternative project management technique.

2. Get more accurate and quicker data

To respond to change in market accurate data gaining is necessary for companies. To address the uncertainties of the retail market the companies must invest in newer demand sensing technologies. To respond increase product availability, capture a higher market share and intelligently, they need to obtain quicker access to data.

3. Make itself innovative

Due to fear of failure the companies feel reluctant to experiment with new processes. During unexpected orders or supply disruptions agile supply chain management strategies help them to identify the best course of action and execute pilot programs.

X. AGILE SUPPLY CHAIN FRAMEWORK

In 1999 Professor Alan Harrison introduced a framework for agile supply chain management. There are basically 4 key components of the agile supply chain management are:

1. Virtual
2. Process integration
3. Market sensitive
4. Network based

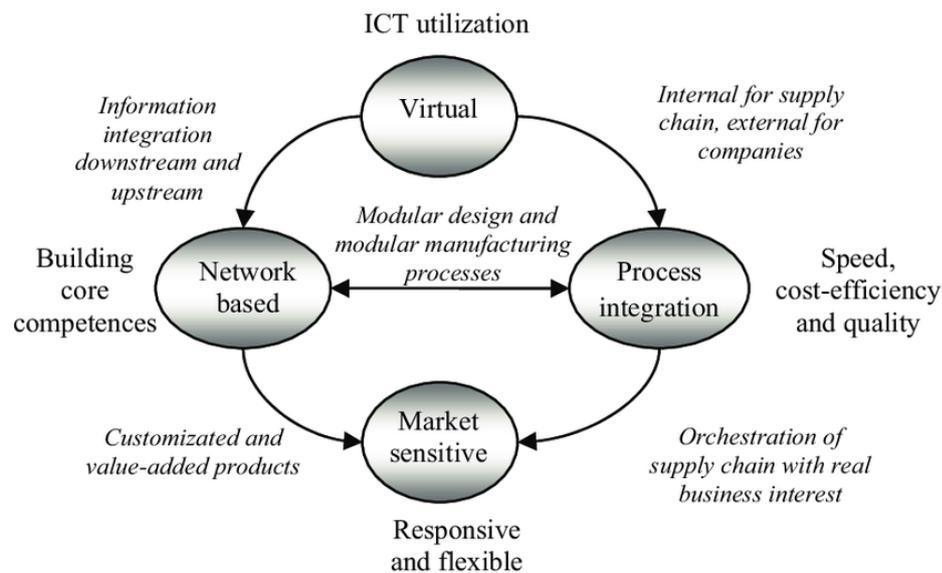


Figure 9: Agile supply chain framework [16]

An example of supply chain trends in 2018 is shown in figure



Figure 10: Supply Chain Trends In 2018 [18]

XI. CONCLUSION

Once a day for good administration of supply chain element works the agile supply chain fundamentally alludes to the utilization of speed, competency, responsiveness and flexibility. For having the option to rapidly adjust the state of progress the deft production network is container to be greatest adaptable. The associations that need to be capable for adjusting the outside changes of financial matters like changes in innovation, changes to client request or monetary swings utilized this philosophy. The association that executes the agile supply chain can rapidly modify their business, source and coordination's. It is being a noteworthy piece of huge association.

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