**Background**

In a small town , people like in the bar after work to leisure and entertainment. There are many similar beer hall in the town, every beer sales roughly equaled, each brand of beer sales relatively stabled. Bar owners purchase from retailers every day.They take a order mode of replenishment type similar to the double box method ,namely that bar owners began to order to make the number of complement to the warehouse holding when the beer sales is less than a certain amount . They do what business, and there has been no problem.

One day, guests of a bar began drink a "lover" brand of beer, causing lack of inventory stock. Boss Hu of the bar emergency retailers to order more usually demand of 20%, but still can not meet all the needs of "lover" brand beer. The second day, Hu boss had to increase the order which is 1.5 times than the normal demand. Unfortunately, a retailer faces many bars in the same demand surge. So, many wholesalers retailers began to increase the quantity of order, only to be told that, "the lover" brand beer has been out of stock,.The increasing quantity can not only make up the short immediately up, now the amount of 50%, that is to say, Hu boss for an additional 100 cases, but only got 50 boxes, because manufacturers could not immediately increase yield. Manufacturers began to work orders, production, transportation and distribution in two weeks, but how to increase production, but also can not meet the demand. And dealers (bar and retailers) does not want to lose a good marketing opportunity, still increase the amount of 1 times than the usual, to demand, or even 2 times! Hu boss also began to demand increased by 150 or even 200 box, box! But the beer is always can not in accordance with the order to this situation lasted for 8 weeks.

Suddenly one day, Boss Hu found the tastes of the guests return to the normal and the beer of brand ‘lover’ is no longer popular. Sales suddenly fell back to the original level. Just then, the beers booked a few weeks before came , Boss Hu found his warehouse even cannot hold all the beers! The beers waiting for coming did not come in time!  Boss Hu suffered heavy losses, looking at the beer in a daze.

Some bar owners (retailers), wholesalers, and distribution of operators suffered like Boss Hu, including the beer maker "lover", which is the biggest loser. The four roles of the  beer supply chain suffered so much that they had to study the causes and consequences of the tragedy.

**Summary description of beer game**

The bullwhip effect reflected in the case of the supply chain, which is called the demand amplification phenomenon, namely is the gradually exaggeration and upgrade of demand from  beer consumers to the bar(retailers), to the wholesalers, and then finally to the beer manufacturers. The effect leading to a significant deviation from the real situation of demand and a magnifying phenomenon of demand along the chain is called the bullwhip effect.

What happened in the small town in the case of bullwhip effect? The original town one day started to play a TV serial of a love story around urban men and women. In the story, the hero and heroine often drank the beer of "lover" brand. The hero and heroine’s touching love story attracted the residents of the small town so much that they frequently drank the beer of "lover" brand for the fashion while talking about the TV serial.

The actual demand of small town had a gradient jump, and then maintained for 8 weeks. 8 weeks later, the TV play was over, people returned to the ordinary life and "lover" brand beer sales resumed to be normal. Fashion is that, come and go. And after the town's bar failed to get the first increasing order, it began to lose their cool, then increasing quantity of the order was more than the actual demand. This exaggeration of needs began to spread to the upstream of supply chain, from the dealer to the manufacturers, and even to supplier of labels and bottles. This is a real case, Budweiser, blue ribbon has encountered this problem caused by seasonal demand increases.

**The birth of the beer game**

In order to understand the bullwhip effect better, we can find the truth by simulating a "beer game" because the cause of the bullwhip effect is hidden in the structure of the game itself. In the beer game, there are five major roles, manufacturers, distributors, wholesalers, retailers, customers. Each of them plays their role respectively according to what they do in the reality.

**The Enlightenment of beer game**

 There is a tendency to each character of the traditional supply chain to automatically arrange production and procurement according to customer's order and their predictions, but this reactive supply is often wrong and lag. Because the manufacturing cycle, the order cycle, the planning cycle are different from each other when they pass the demand of quantity and time, they are inevitably influenced by the bullwhip effect. In simple terms is the difference between the individual income and total income. Only do they share their information timely not periodically can they alleviate the error.

People often fail to unable to reach the potentiality of leverage, can not find the key to solve the problem because we only care about their own decisions, while ignoring the influence of decisions to others. In the beer game, players have the ability to eliminate instability  in the extreme, however, they do not do this, because they do not understand it is them that result in this instability.

**Expansion**

In order to avoid the bullwhip effect, business cooperation  should follow three principles of SCM cooperation, it is foundation and core of the enterprise to win the war of SCM and make a 100-year company.

The amplification effect of the demand of supply chain force the chain partners to cooperate each other with absolute sincerity and effective communication. And they should share the information based on the principle of shared stakeholders to enhance the risk resistance capacity of chain. This requires the supply chain partners to change the original buyer's exaggerated demand in order to win the price, the seller should not sell on credit or promote sales for the short term sales. Also we can not let the customer places an order  in advance or not immediately needed.

Business competition has intensified competition, any enterprise can not be spared or independently survive. They must construct the harmonious, forward-looking and healthy supply chain. Any company ignoring long-term interests, only focusing on short-term interests of the manufacturers are difficult to remain invincible. It is worth noting that, domestic enterprises have not realized the supply chain competition in the need of high cooperation. Large sales company (such as Suning, Gome, WAL-MART, Carrefour, etc.) in the end of the supply chain dominates the chain compared to the manufacturers in the upstream, which makes the Chinese manufacturing more difficult to survive.

 The supply chain competes for the overall advantage of supply chain for enterprises and multi-win business model. Any of the hegemony of alonging me prosperous against me will die can not continue to win. We should share the sense of maintaining the supply chain’s security, stability, duration, continuity, high efficiency, we must connect the business resources and business process in the supply chain seamlessly. All of these needs supply chain partners to have same sense of value, common standards of business and conduct respect the commercial morality.

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