

Week 2: customer demand and inventory



Logistics How can firms cope with huge variability in demand? Firms find it difficult to deal with variability in the customer demand. However, with the past documented records on the instances where the customer demand varies then such a firm can make use of the lead time and avail the necessary products as well as material for the customers. Another method that can be adopted to deal with customer variability is to have the ability to expand the production process by the firm or its suppliers to enable the firm to have the capabilities and materials needed to expand its operations as well as its production. This requires a firm to be flexible if it is to deal with the variability of customers demand and at the same time maintaining the safety stock. In this case, if the information is shared between the firm stakeholders then variability in the customers demand can be dealt with appropriately (Simchi-Levi, Kaminsky & Simchi-Levi, 2003).

2. What is the relationship between service and inventory levels?

In most cases, the higher the inventory level, the more likely for a firm to preserve advanced service levels. This was used in the past inventory management techniques. However, the current techniques used in the inventory management make it possible for a firm to increase its service levels while at the same time having a little or no influence on its service levels.

3. What is the impact of lead time, and lead time variability, on inventory levels?

The unpredictability in demand augments so does the regular lead time, as well as, the inconsistency of lead time increases. Higher lead time variance causes the inventory levels to increase depending with the given service level. In addition, the longer the lead time the higher the increase in the

inventory levels. The length of the lead time is also influenced by the customer variability demand, and this will effectively raise the inventory levels.

References

Simchi-Levi D., Kaminsky P., & Simchi-Levi, E. (2003). *Designing and Managing the Supply Chain Concepts, Strategies, and Case Studies*. New York: McGraw Hill Professional.