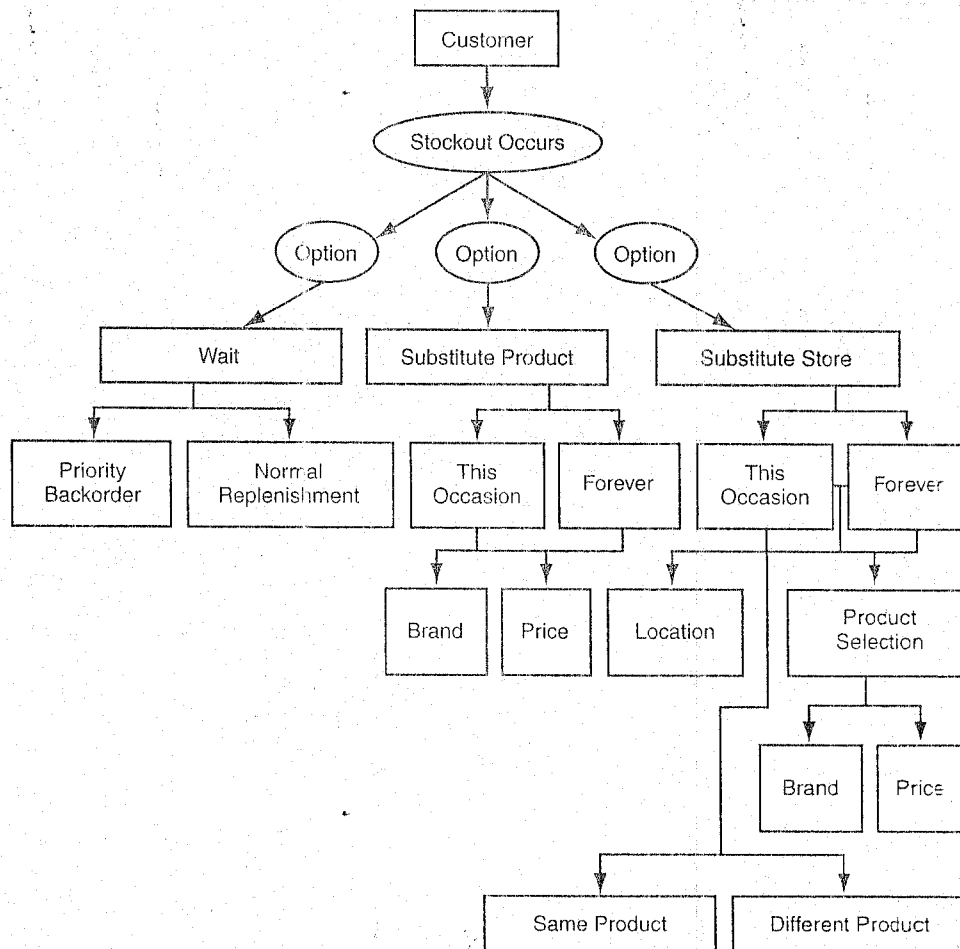


Figure 2.1 : Customer decisions regarding a stockout .



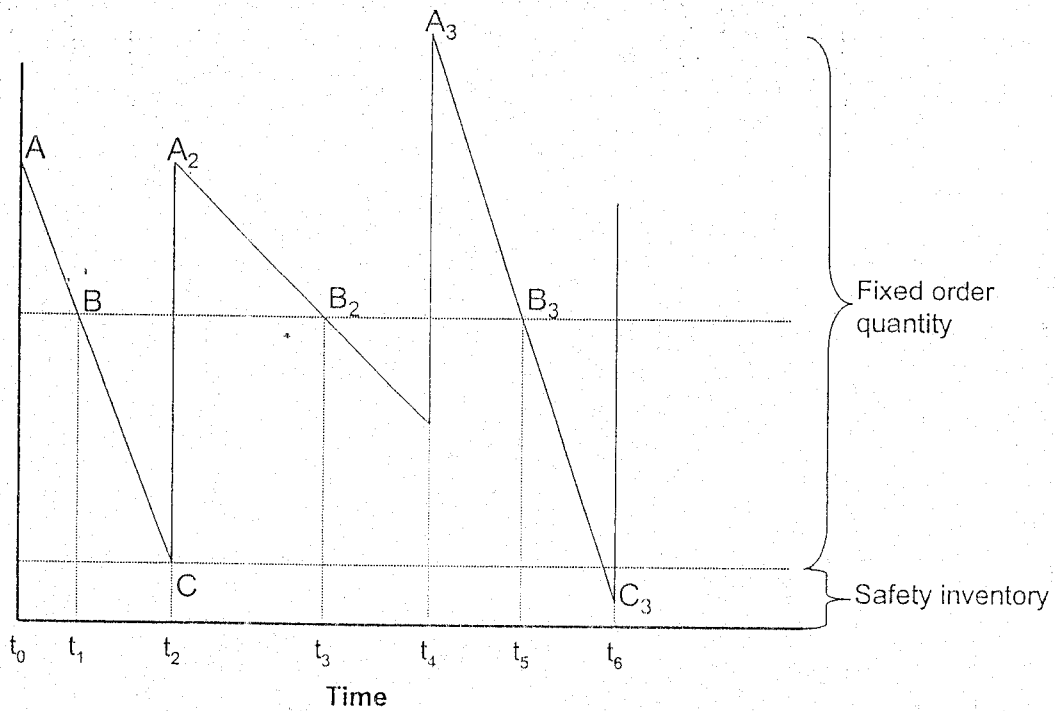
Source : Bloomberg D J , Lemay S. and Hanna J B. 2002 . Logistics:137

e. Buffer interface. Inventory can buffer key interfaces, creating time and place utility. Key interfaces include (1) supplier and purchasing, (2) purchasing and production, (3) production and marketing, (4) marketing and distribution, (5) distribution and intermediary, and (6) intermediary and customer. Having inventory at these interfaces helps ensure that demand is met and stock outs are minimised.

2.2.2.2 Importance of inventory

According to Hugo, Badenhorst-Weiss and Van Rooyen (2002:194-195) the basic characteristic of the system is that whenever stocks are replenished, the same fixed quantity is ordered (the economic order quantity) every time. This can graphically be represented by the following figure:

Figure 2.2 : Fixed order quantity system



Source : Hugo, W M J, Badenhorst-Weiss, J A and Van Rooyen, D C. 2002 .
 Purchasing and Supply Management :195

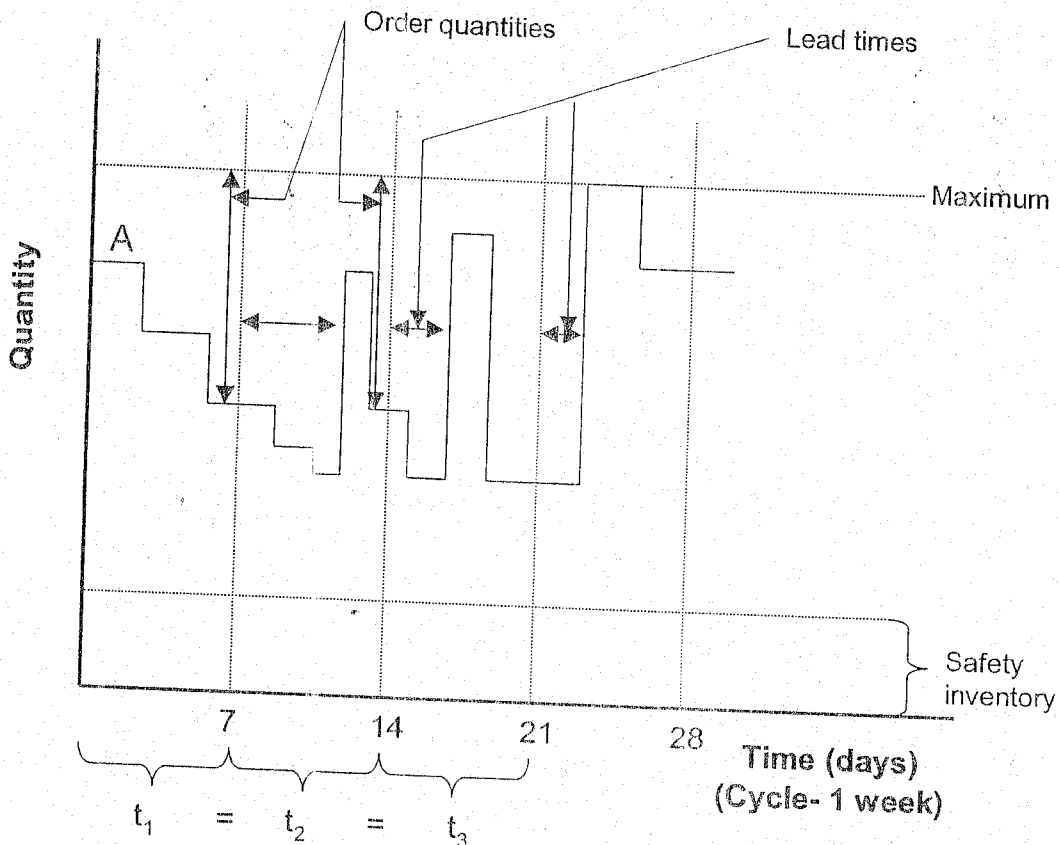
Inventory is issued from an existing inventory level (A) and depleted over a period of time up to t_1 , when the re-order level (B) is reached and further depleted over the period to t_2 , when the safety-inventory level (C) is reached. No safety inventory is issued, because the ordered fixed quantity is received at time t_2 , and inventory is replenished to level A_2 . The process repeats itself and a fixed quantity is ordered whenever the re-ordering level (B_2 ; B_3) is reached.

insufficient inventory could very well be available)
-The system is fairly simple to control and the EOQ is ordered on every occasion.

b. Cyclical ordering system

According to Hugo, Badenhorst-Weiss and Van Rooyen (2002:195-196) the cyclical ordering system's most prominent characteristic is that the level of all inventory items are received at fixed, predetermined times to determine whether sufficient inventory is available. The review cycles vary according to the nature of the inventory, but longer review cycles require higher maximum (as well as average) inventory levels. Shorter review cycle however mean more orders and higher replenishment costs.

Figure 2.3 : Cyclical ordering system



Source : Hugo. W M J, Badenhorst-Weiss. J A and Van Rooyen. DC. 2002 .
Purchasing and Supply Management : 196

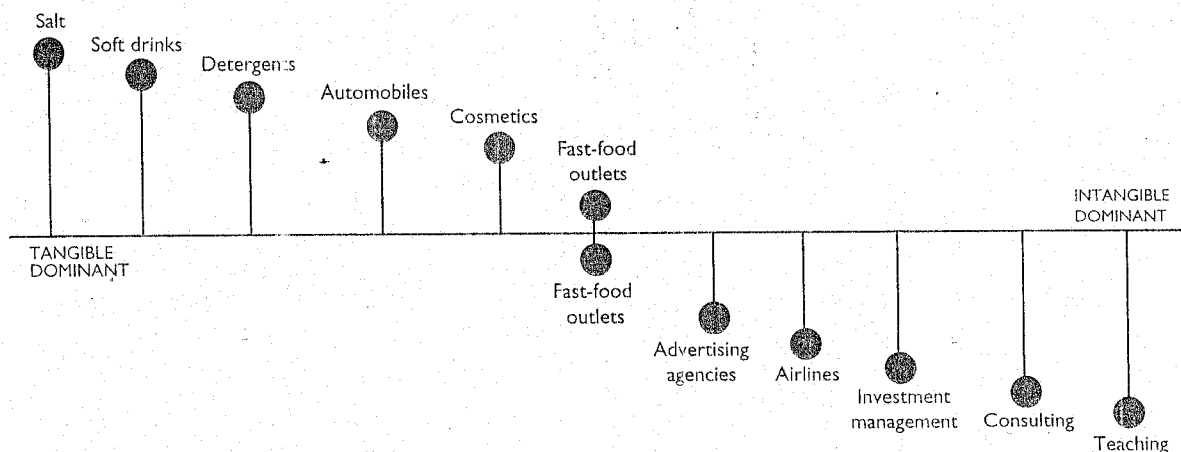
CHAPTER 3: CUSTOMER SERVICE

3.1 INTRODUCTION

Manufacturing industries purchase raw materials from suppliers, transform them into finished goods in order to be sold to customers. Customers' needs or markets' needs in general have always been a great worry for organisations either of the public or private sector. Customer service is one of the most important key activities of business logistics in the sense that it allows to determine in concrete terms customers' needs and wants for logistics in order to be positively met or answered.

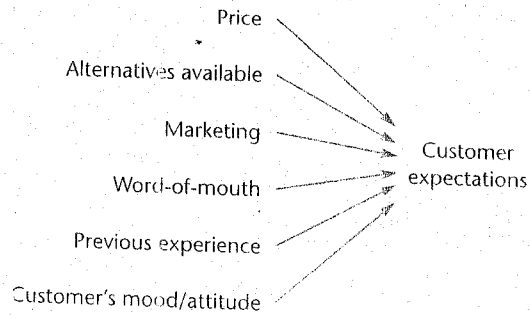
Leaning on service marketing, Hoffman and Bateson (2002:4-5) establish fundamental differences between goods and services summarised by a scale of market entities. That explanation is shaped by the following figure:

Figure 3.1: Scale of market entities



Source: Lynn Shostack (in Hoffman and Bateson 2002). Essentials of service marketing: Concepts, Strategies & Cases. 5

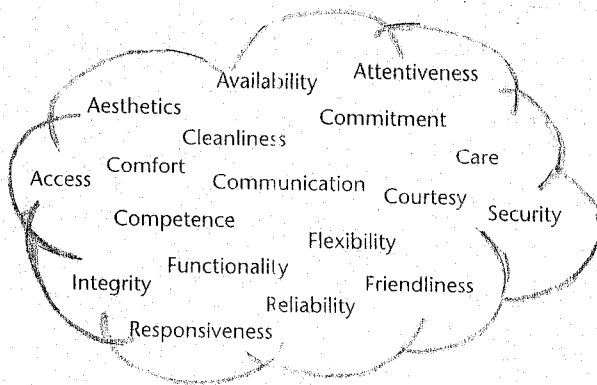
Hoffman and Bateson (2002:5) explain that figure 3.1 displays a range of products based on their tangibility. Pure goods are tangible dominant, whereas pure services are



Source: Johnston, R and Clark, G. 2001. Service operations management. 86

It is imperious to be noted that apart from the above- mentioned parameters, there are also service quality factors that motivate a customer to purchase as well. Related to that, Johnston and Clark (2001:88) mention that service quality factors are attributes of service about which customers may have expectations and which need to be delivered at some specific level. Here is the graphical representation of those variables which influence customers' purchasing decisions.

Figure 3.3: Service quality and its factors



Source: Johnston, R and Clark, G. 2001. Service operations management. 98

3.2.6.2 Customer satisfaction

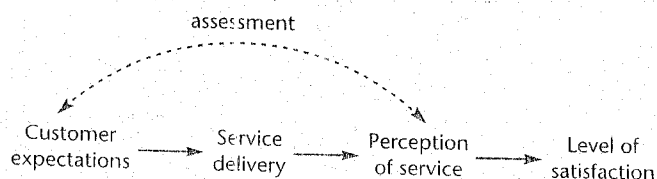
According to Johnston and Clark (2001:78), satisfaction is the result of a customer's assessment of a service based on a comparison of its service delivery with its prior expectations.

The research done by Yasin and Yavas (1999:1) witnesses that in an area of intense competitive pressure, service organisations ranging from hospitals to financial institutions to restaurants face considerable pressures and challenges not only to meet, but also to exceed customer expectations. Today's sophisticated and discerning customers demand the highest levels of service efficiency, quality, and flexibility and dependability. Many service organisations recognise that attaining customer satisfaction through delivery of quality services is a key to their survival and they are well aware that having a loyal base of satisfied customers increases sales, reduces costs, improves bottom lines and builds markets shares. Yet, while manufacturing organisations have long been willing to develop the philosophies, techniques and concepts needed to enhance the effectiveness of their systems, most service organisations have lagged behind.

To streamline and improve their service delivery system, service organisations have much to learn from their manufacturing counterparts in utilising, among others, such quality and process improvement tools as root cause analysis (RCA), benchmarking (BM), process reengineering (PR) and continuous improvement.

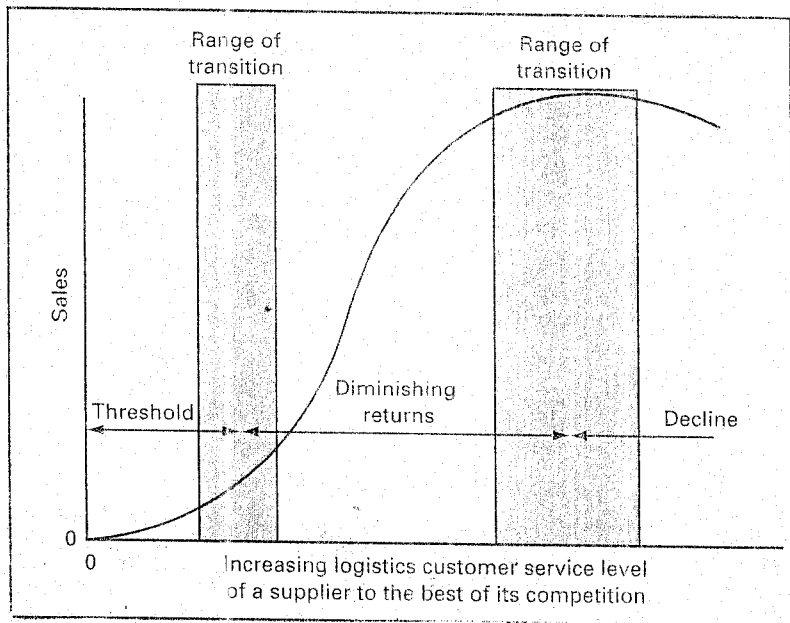
The following figure shows the relationship between expectations and satisfaction:

Figure 3.4: Relationship between expectations and satisfaction



Source: Johnston, R and Clark, G. 2001. Service operations management. 78

3.3 CUSTOMER SERVICE RELATIONSHIPS



Source: Ballou, R H. 2004. Business logistics / Supply chain management.105.

Ballou (2004:106) gives an explanation to figure 3.5 noting three distinct stages of the curve: threshold, diminishing returns and decline. Each stage shows the equal increments of service improvements that do not always bring equal gains in sales. He clearly underlines these following marking points:

- a. When no customer service exists between a buyer and a supplier, or when service is extremely poor, little or no sales are generated. Obviously, if a supplier offers no logistics, customer service and the buyer is not providing it, there is no way of overcoming the time and space gap between the two. No exchange and thus no sales, can take place.
- b. As service is increased to that approximating the offering by competition, little sales gain can be expected. Assuming that price and quality are equal, the firm is not in effect, and in business until its service level approximates that of the competition. This point is the threshold service level.

c. When a firm's service level reaches this threshold, further service improvement relative to competition can show good sales stimulation. Sales are captured from competing suppliers by creating a service differential. As the service is further improved, sales continue to increase, but at a slower rate. The region from the service level at threshold to the point of sales decline is referred to as one of diminishing returns. It is in this region that most of firms operate their supply chains.

Researches related to customer service have proven that sales increases are linked to customer service improvement. Based on that fact, business organisations have to formulate strategic actions in view of provoking sales increase.

3.3.2 Cost-Service relationship

Cost is a significant variable which directly or indirectly influences logistics key activities. Logistics customer service is a result of logistics activity level. Each level of service is associated with a given cost level. Ballou (2004:109-110) states that 'as activity levels are increased to meet higher customer service levels, costs increase at an increasing rate. This is a general phenomenon observed in most of economic activities as they are forced beyond their point of maximum efficiency.' Graphically, cost-service relationship can be represented as follows:

Figure 3.6: General cost- revenue trade-offs at varying levels of logistics customer service

