RAMA UNIVERSITY

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FACULTY OF COMMERCE AND MANAGEMENT

COURSE: MBA III SEM..

SUBJECT: WORKING CAPITAL MANAGEMENT

SUBJECT CODE: MBAFM02

LECTURE: 23

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LECTURE-23

The Order Point Problem:

Re-Order Point:

It indicates that level of stock at which the store-keeper initiates purchase requisition for fresh supplies of the materials for replenishing the stock, i.e., when to place order for replenishment of inventories. Needless to mention that this level is fixed somewhere between the maximum and the minimum levels.

In short, this level is fixed in such a manner so that sufficient quantity will remain in the stores in order to meet the normal and abnormal situations up to a certain period till the fresh supplies are received.

In order words, the size of the order should be equivalent to the EOQ However, this fixation depends on:

(i) The maximum delivery period and,

(ii) The maximum rate of consumption and,

(iii) The minimum or safety stock level.

Re-order point may be calculated under conditions of certainty in the following manner:

(a) With Safety Stock

Re-order point = (Average Usage of Inventory × Lead time) + Safety Stock.

(b) No Safety Stock

Re-order point = Average Usage of Inventory × Lead time

The following illustration will make the principle clear with the help of a diagram:

EOQ = 800 units.

Lead Time = 3 weeks.

Average Usage = 80 units per week.

Therefore, the EOQ 800 units are quite sufficient for 10 weeks (800 + 80). As such, if there is no lead time or the delivery of inventory is instantaneous, the new order will be placed at the end of 10th week immediately when the EOQ is exhausted or reaches zero level. But, since there is a lead time for 3 weeks, order should be placed at the end of 7th week.

Because, at that moment only 240 units will remain for the next three weeks, i.e., during the lead time So, when the lead time ends, level of inventory will reach at zero and first inventory for 800 units will arrive Thus, the re-order point is 240 unit (80 × 3).

This principle is illustrated with the help of the following diagram:

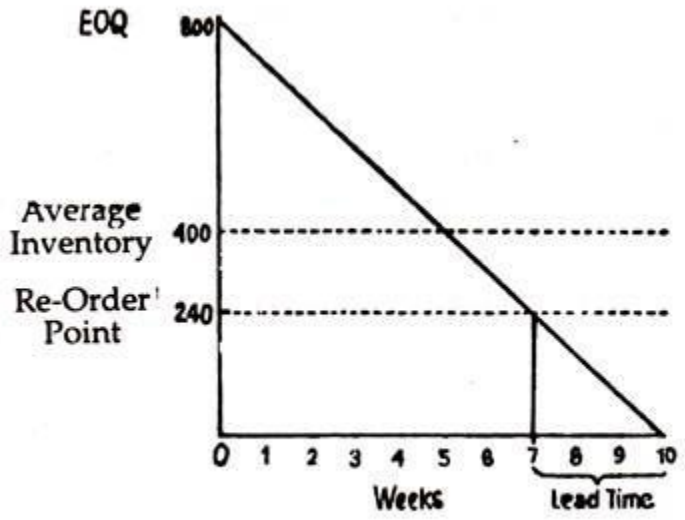

Fig.8.12 Re-order Point under Certainty.

The above diagram shows that the order should be placed at the end of 7th week where there are 240 units for the lead time. At the end of 10th week, when there is no stock, first supply of 800 units will arrive. As such, if there is no lead time, the re-order point will be zero level of inventory.