

Effective Perishable Inventory Management & Ordering Strategy cycle for Sustainability of Business

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Abstract:

Inventory management is a process of minimizing the investment and control of inventory. Generally perishable product inventory are important and challenging task for entrepreneur to maintain its profit and sustainability of its business with the balance of supply and demand of agricultural products in current scenario. Perishable product like vegetables and fruits selling and its inventory is an issue for the various state government of India, which creates the farmer's harassment, sick agriculture industry, NPA of the bank & low GDP. Here the authors have taken ordering strategy cycle with the assumed data and its challenges, development of strategy & implementation and evaluation as the solution for the problem in the field of perishable inventory management

Keywords: Inventory, Ordering strategy cycle, NPA, GDP, Price equilibrium

Introduction:

Proper management of stocks normalizes the activities of the organization. Effective determination of the stocks with its required time horizon helps to increase the efficiency of a particular business house, where as it is affected by the nature of the product like as durable and perishable. The inventory of perishable product and its management is a recent issue in managerial and operational point of view because of their less estimated life and after this it is either wastage or will be sold in a little bit less price which is below than the expected price leads to decrease in the revenue generation of the retailer entrepreneur with a challenge of sustainability of the business. Further, the same is also found in many states of India where 70% or more people are depending upon agricultural production and selling of the same for their livelihood and due to lack of proper price for their production with heavy wastage, they are harassed with mental stress with the burden of huge loan and leaving of the business, whereas in the other side consumers or purchaser are suffering with high payment towards the agricultural product. To eradicate this problem various strategies may be developed out of which the authors have taken the ordering strategy cycle for the better control of this production procedure of the perishable product & its inventory management.

Literature Review

Organization's inventory is an important component and its management is vital to the success and cost reduction of the firm's expenditure. In this field of effective inventory management, a number of scholars have done this research and come up with their suggestions & findings.

Wild(2002) recommends , proper warehousing of inventory so that when goods are ordered , they are held at the warehouse or the least item possible minimizing holding cost of inventory .

Kavalya (2004) , explains Total cost model needs to be balanced by ensuring purchase costs, ordering cost and holding costs are minimized so that the firm can reap good profits and maintain its budgetary allocation for nongovernmental organization”.

Beamon and Kotleba(2006), explain that reorder level (ROL) is critical for human terrain organizations to achieve optimal efficiency and be effective. They need to have two reorder levels one that is normal where as a second one that is for emergency cases in case of disaster. This improves performance and customer satisfaction”.

Lai & Chang (2009), it was found out that keeping moderate inventory is good and it enables an organization operate minimal expenses of holding and setup costs, eliminate unwanted lead time produce goods as per customer order. This enables an organization to achieve total quality control as efficient and effective supply chain management are implemented in a firm's value chain.

Prasad & TATA (2010), Batching of inventory helps NGOS save on their transport cost which will eventually save on their supply chain total cost.

Palrich (2012), Operational costs may increase inventory management costs like through the balance of ordering costs , holding cost , safety stocks , stock outs .”

T .Lwika & P. B Ojera (2013, Inventory management is a crucial part of a firm because mismanagement of inventory threatens a firm's viability such as too much inventory consumes physical space , creates financial burden and increases the possibilities of damage , spoilage and loss .

J. W Toomy, The role of inventory management is to maintain a desired stock level for every specific product items, where the systems that plan and control inventory must be based in the product, customer and the process of for product that available in the inventory.

Objective of the study:

- To find out the reasons behind the effective perishable inventory management.
- To determine the impact of ordering strategy cycle upon the Perishable product inventory management.

Methodology of the study:

Here the authors have taken all the secondary sources for their analysis & interpretation and development of the assumptions, concepts and challenges for the perishable inventory management and determination of an ordering strategy cycle for the solution towards meeting the issues and challenges in the field of perishable inventory management.

Model and interpretation:

Indian government today is emphasizing upon the development of employment opportunity and growth of economy through the self-employment scheme, for which pradhanmantri mudra yojana and other financial scheme is developed and the nationalized banks has the provision to give the

loans to the unemployed to start their own business and develop their own income with the sharing of the growth of national income. But according to the survey report maximum primary sector loan are NPA and the unemployment rate is growing. , which may be due to the failure of agriculture industry. To find out the reason behind this failure agriculture industry particularly the failure of vendors of the vegetables and fruits, it is found out that the agricultural entrepreneur are starting their business and after certain days facing the huge loss and closing their business by which it is the problem for both the bank and to the entrepreneur. To solve this problem the author has gone through various literatures and developed the ordering strategy cycle.

Ordering Strategy:

Here the problem is the short term life of the product and zero scrap value whereas the entrepreneur has to make the ordering of the product amount in such a way that the inventory can meet the demand of the consumer without any wastage or scrap . Here the authors have the task to find out the strategy for determination of order quantity to maintain an effective inventory, which contains precautionary actions have to be held through number of certain steps with certain assumptions. This cycle is held through the various steps like assumptions, challenges, development of strategy and implementation & evaluation.

Assumption about the components of the cycle

- Centralized decision making procedure (decision making regarding the products after care is based on the individual manager's perception)
- The characteristics of the perishable items
- How the highest profit margin can be achieved

Determination of the Challenges in this field

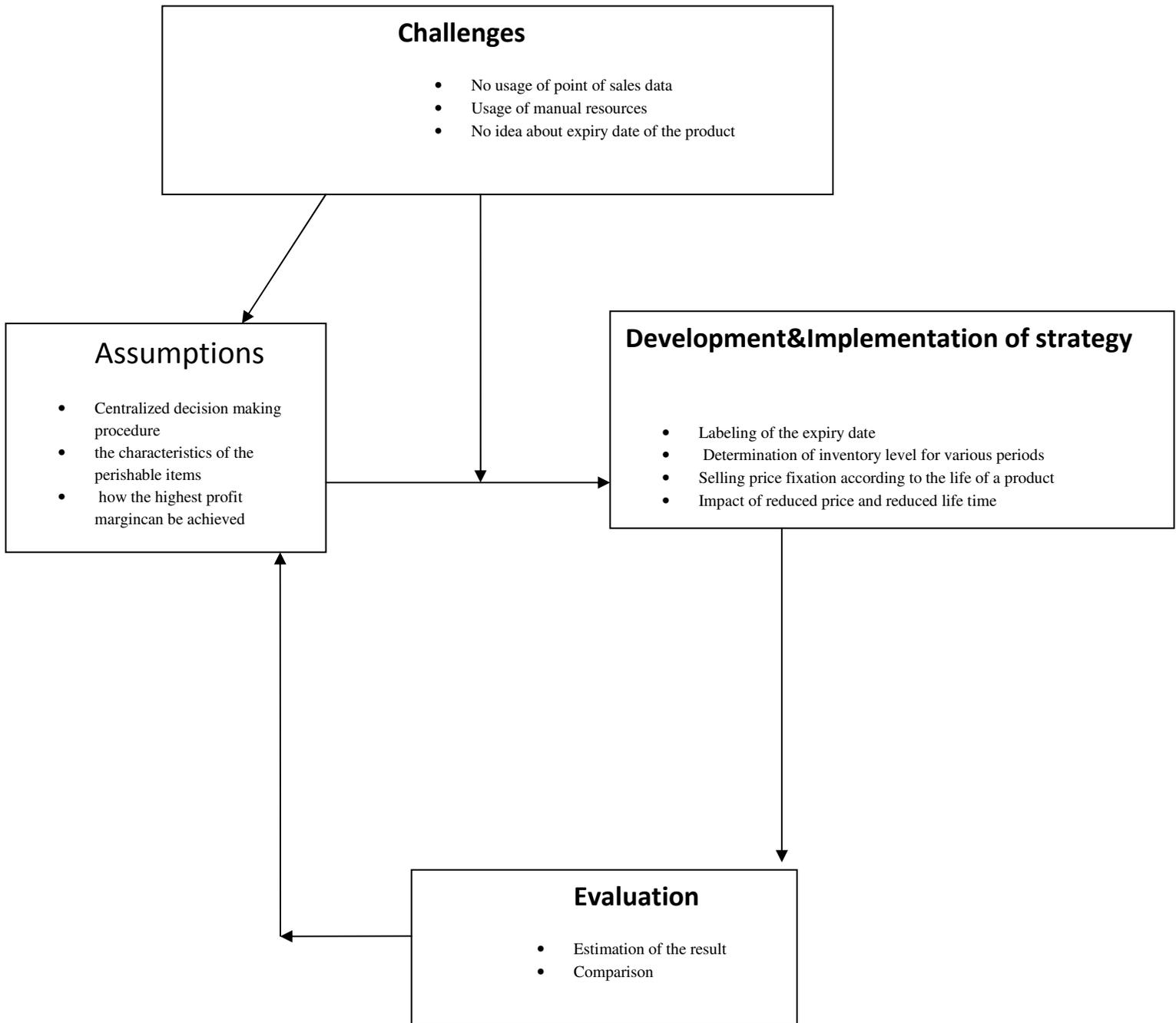
- Retailers are not able to use point of sales data to identify products that about to reach their expiration date.
- Usage of manual resources to identify the products which is almost reached at expiration date.

Development & Implementation of the strategy

- Labeling of the expiry date on the packet of the product by which calculation of order quantity can be held smoothly.
- Determination of inventory level for various periods
- Selling price fixation according to the life of a product
- Impact of reduced price and reduced life time

Evaluation:

- Estimation of the result and comparison between the planned one.



Discussion

This strategy is totally a centralized decision making procedure where the retailer or small entrepreneur will take his / her own decision with the consultation of the expert in various fields to categorize the perishable product by taking their characteristics into consideration whereas how much order for the item will be held, by which there will be the maximum profit by minimizing the waste of the perishable product.

By going through these assumptions the entrepreneur may not ignore the challenges which is just going to be met by the Retailers like as –

- Not able to use point of sales data to identify products that about to reach their expiration date.
- Usage of the manual resource for the identification of the products life and expiration date.

To solve the e problem the strategy has to be developed and may be applied for its solution may be as follows:

- Labelling of the expiry date on the packet of the product by which calculation of order quantity can be held smoothly.
- Determination of inventory level for various periods
- Selling price fixation according to the life of a product
- Impact of reduced price and reduced life time

The entrepreneur has to make the labelling of the expiry date of the product by taking the characteristics of the product into consideration, by which according to this ordering of the quantity of the product will be possible. Various times the product has its various demand size, accordingly the product inventory size has to be fixed to meet the demand of the consumers. Again the most important strategy is the selling price fixation for the product where the entrepreneur has to go for the usage of equilibrium price where the supplier and consumer will be satisfied and clearance of the inventory within the life time of the product without any wastage and in this case Fergusson and Koenighing's mathematical foundation may be applied which is the relation between demand & price for a given product .Then the desired sales price for new & old products can be found through a linear function based on the market potential ,order quantity of new products & inventory level of old products . But after this if inventory is not cleared the strategy of reduced price or less price, allotment for the reduced life time has to be held. At the time of price fixation, the quality of the product may not be ignored which is a function of product life cycle and with the difference in the perception of the consumer and seller, If old predicts are sold at a discount price might capture the entire demand share and the retailer will obtain a smaller profit margin of the product but avoid waste , thus the expected profit margin of a single product has to be revised by the retailer in order to recalculate the total profit . After completion of the strategy implementation, the result has to be evaluated that is the profit of the entrepreneur or retailer if profit is there, then sustainability of the business is possible and the entrepreneur has to go through this strategy, nevertheless again go for further decision with the changes of the cycles.

Conclusion:

After going through the Ordering Strategy cycle for the perishable inventory management, it can be concluded that with the implementation of this strategy, the issues and challenges in the field of perishable inventory management may be solved effectively & with the controlling power of the entrepreneur towards their challenges as a self-motivated entrepreneur with sustainable

business s and inspiration for the self-employment with economic growth of the country with GDP growth by enhanced agricultural production.

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