

Inventory Management Best Practices in Malaysia Manufacturing

Santhirasegaran Nadarajan^{1*}, Sitraselvi Chandren², Ezanee Bin Mohamed Elias¹, Kamarul Irwan bin Abdul Rahim¹

¹School of Technology Management & Logistics, Universiti Utara Malaysia, Sintok Kedah, Malaysia

²Tunku Puteri Intan Safinaz School of Accountancy, College of Business, Universiti Utara Malaysia, Sintok Kedah, Malaysia

*Corresponding author

Abstract: Inventory management best practices succumb to how well a company efficiently control the stocks which have repercussion on overall financial position as it is well known as capital assets which may lead to liabilities when poorly manage. This paper shall address some key success factors in managing inventory efficiently and effectively base on the main author working experience more than fifteen years in electronic and electrical manufacturing. The approach of having efficient stock control point reflects how well the manufacturing paying lot of attention to ensure the current capital asset properly been used and replenished at the same time by not keeping too much inventories and having too low as well. This review paper shall be an eye opener for industry players and academic in building knowledge and concept benchmarking the best practices commonly uphold by many manufacturing and add on contribution to research community.

Keywords: Inventory management, manufacturing and best practices

I. INTRODUCTION

Improving inventory management can be a significant enabler for many sectors especially concerning production organizations for example manufacturing to perform efficiently and effectively in transforming input into output deriving from efficient supply chain. High inventory come with high carrying costs that drain manufacturing operating budgets. Ineffective management of inventory has major implications on both cost and service delivery. In particular, inventory shortages undermine service delivery while excess inventory leads to increased costs. Therefore placing inventory best practices should be the eminent consideration to meet effective service delivery and reducing inventory cost. A key objective of inventory management is to ensure that an appropriate amount of inventory is available to meet set service levels while keeping costs at a minimum. Improvements in inventory management efficiency are linked to better financial performance (Gołaś, 2020). The best practices such as proper record on inventory movement in and out, to carry out inventory stock take annual or bi annual, cycle counting time to time for high value inventory, monitor abnormal inventory such as slow moving and obsolete, frequent trouble shooting on shortages as well on excess inventory, control or monitor on defect stock, all inventory are classified by category, strengthening inventory re-order point and safety stock.

II. LITERATURE REVIEWS

Reorder Point

Placing an important towards ordering system such as timing for creating order depends on forecast strategies in place and matching with the current outstanding stock will further strengthen the ordering system (Nadarajan, , Chandren, , Abdul Rahim, Radzuan, & Mohd Nawawi, 2018). Inventory proper techniques such as economic order quantity (EOQ) will further strive the ordering system effectively. Reorder point take place when the inventory for certain level of critical observe and require immediate replenishment in order to avoid shortage eventually effect production refer to figure 1.

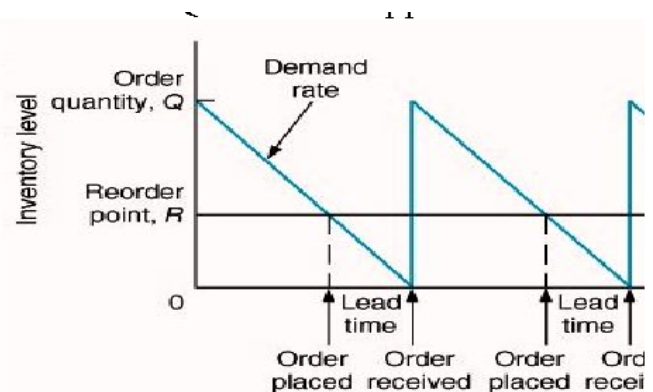


Figure 1 Flow of EOQ relevance approach

Strengthening inventory reorder point subject to inventory level determined by demand pattern captured through effective forecasting strategies in place (Nadarajan, & Chandren, 2011). This could be done if proper navigation through solid system planning consideration should enhance the reordering system effectively. Such system should imply from high consumption inventory base on the peak demand pattern. The order quantity Q refer to figure 1 is the desire level quantity ascertain from the forecast demand on annual basis when it touches at the critical level or the reorder level (R) alarm the manufacturing time for ordering starts immediately especially high consumption inventory. This technique is not workable for slow moving inventory. To be precisely, inventory is carefully planned when the time come for order at this junction reorder level will further strengthen

the ordering system effectively (Mohd Nawi, Nadarajan, Ibrahim, & Mustapha, 2017).

Cycle Counting

Manufacturing should put greater emphasize on counting inventory time to time (Chandren, Nadarajan, & Abdullah, 2015). The nature of frequency of counting could be done when the manufacturing classify the inventory base on category using rule of thumb or ABC analysis approach. Category A inventory is items that has high value but low volume of quantity, category B moderately having value and volume and the last category C low value and high volume of quantity. The emphasize frequency of counting on category A inventory should put high priority as this category without proper control may implicate financial position of the organization. For example ,supposing the cycle counting for category A carry out on weekly basis follow up by category B on monthly basis finally category C on every quarter. More time require to conduct physical count for high value inventory moreover the requirement of supply to production should classify just in time. For example in warehouse the inventory as a whole 5000 types whereby 500 falls under category A and it may require 20 working days to finish counting for all category A means it may take to count 25 items per day. By doing so you have precise logical versus physical quantity without having discrepancy. Such practices should be the eminent way to avoid any unforeseen deficit in stock or excess.

Safety Stock

Also known as reserve or buffer inventory add on inventory held for meeting any unforeseen deficit inventory or risk associating having shortages (Nadarajan, Nadarajah, Bahaudin, 2014). This inventory is held more than the actual production requirement just in case supplier failure to meet the obligation for on time delivery cannot be met. When consider for safety stock? Not all inventory require safety stock and only for inventory having high usage and replenishment for certain period of time refer to figure 2.

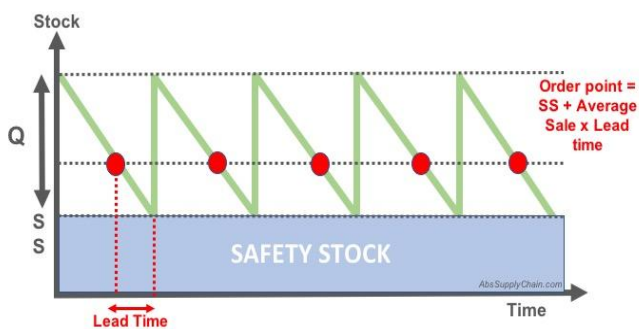


Figure 2: Safety stock count

Safety stock base on probabilistic calculation base on service level on top of the actual production requirement. Indirectly shall cushion the impact problem arising from current demand

fluctuation or problem arising from issue governing to lead time.

Movement of Inventory

“Inventory is constantly in a state of flux because items move into and out of inventory as required. Inventory managers need to manage this movement effectively so that the current level of inventory is recorded, an optimum level of stock is maintained, and costs to the organization are controlled”. The movement of stock in and out should be properly monitored and recorded. For instance inventory received from supplier at receiving bay at warehouse should be properly count and recorded base on real time entry (Nadarajan, Abdul Rahim, & Mohd Saifudin, 2019). This is subject to quality issue clearance by quality control (QC) and the next level to put away to designated storage area or store keeping unit (SKU). The system shall be up to date the exact location of the storage. When the production requirement take place the inventory movement shift to another division such as production base on real time entry refer to figure 3 rather than depending so much on conventional entry by clerical which may take more time for entry. The actual movement of inventory could be seen in the monitor where discrepancy could be avoided.



Figure 3: Inventory movement

III. DISCUSSION AND CONCLUSION

Businesses require sustainability growth and healthy financial position at all time. In order to do the asset belonging to them especially raw materials that accounts for more than half should place as utmost important. In order to mitigate this, proper metrics in inventory best practices as spell out in this paper shall guide and predict for better inventory management process and instill inventory accuracy. Among the metrics that been written in this paper, inventory movement, re order point , safety stock level and cycle counting very important practices to look for and implementing it require perfect commitment and accountable data at all time. Beside that perfect order is also placing important metrics especially completeness of the order should be monitor and follow up by procurement section in order to fulfill customer order on time and satisfaction.

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