THE IMPORTANCE OF INVENTORY IN MAKING TEAM MANAGERIAL DECISIONS

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Abstract

The purpose of this paper is to show the importance of inventory for a management team within a company in decision making. The main goal of the team is to maximize the company's net profit. The paper will describe the most important functions of the inventory for the benefit of society and how last minute decisions can be made regarding important activities within the organization, as well as the positive influence of these decisions. In addition, the paper will include several methods of profit maximization that involve constant monitoring of stock levels and replenishment. Careful supervision like this will prevent losses for several reasons, such as damage to packaging, expired products or even theft. Additional benefits include organized inventory, as well as the most widely used strategies in reducing expenses and increasing sales within a company. The main purpose of this paper is to increase the fact that inventory is not only a procedure that companies are required to follow at least once a year, but also has multiple advantages that can radically change profits. The methodology consisted of an analysis of academic publications and specialized books of the authors: Dorel Mates, Veronica Grosu, Aura Domil, Daniela Pordea and Denisa Cretu, publications between 2018-2020 and lectures and papers by Monica Nedelcu and Constantin Bagu have were also used to understand the stock production process, as well as production management, published in 2017. Inventory is an indispensable step in the production and operation of a business, as stated by experts in their publications.
Key words: inventory, stock, maximizing profits, price, warehouse, restocking.

Introduction

This article presents the role of inventory in substantiating managers' decisions regarding profit maximization and the adoption of strategies that lead to the improvement of the company's activity. Often, not carrying out a regular inventory brings multiple problems to the company, and below is described the importance of inventory and what we can discover with its help.

Inventory is important for a management team within a company in making decisions, because the main objective of the team is to maximize the company's net profit. Inventory is a mandatory procedure in any business at the end of a financial period, especially at the end of the year. Inventory counting can be done as many times as necessary, especially when there are surpluses or losses without a clear cause. Inventory counting can also be done, for example, when there is a change in management, reorganization of management or when there are natural disasters. Failure to recommend the inventory is illegal according to law 82/1991, article 41, line 2, letter d and is sanctioned with a fine between 400 and 5,000 lei.

Demand plays a very important role in stocks and, as a result, in decisions about the inventory of present and future demand. Constant demand can exist and is taken into account only in the maturity phase of the product and only in a well-defined period of time. You can also have a variable demand, and variations can be displayed within the price, quality, or stock levels of the product (Bahari - Kashani, 1989).

The paper will describe the most important functions of the inventory for the benefit of society and how last minute decisions can be made regarding important activities within the organization, as well as the positive influence of these decisions. There are several types of inventory and they are named after the period of the year in which the count takes place: annual inventory, periodic, occasional, unforeseen. The most used inventory method is the year-end inventory for stored products, according to law 82/1991, Accounting Law. This must be done for the current stock, the stock to be received, as well as the stock held. Inventory counting will help identify surpluses or losses in quantity and value at a given time.

For a clear and correct portrayal of stored items, the method used is technical-operational with the help of permanent or intermittent inventory. The standing inventory shows evidence of all transactions in the amount and value of the general account at the time of acquisition. Intermittent inventory is a type of inventory used mostly by small businesses because it does not display current stock levels of all products and can only display current values after counting. This method requires more manpower to perform, and as a result, the recommended method is permanent inventory, as inventory levels can be more easily controlled by the company (Dorel et al., 2020).

Proper inventory counting by the inventory management team at any level within a company can bring multiple benefits to a company, such as identifying losses caused by dishonest employees, late deliveries, damaged or expired products, or inventory items that are either sell very easily, either stagnant products, reorganization of receipt (if necessary), clear evidence of stock levels, avoid chaotic purchases, but most importantly maximize profits - the main priority for managers.

Inventory tracking is an action with a well-defined interest: having real-time data of items moving through the warehouse and to prevent and correct in time certain problems discovered with the inventory. Stock records can be made by synthetic evidence (permanent or intermittent inventory) or analytical evidence (knowledge of stock levels quantity / value by category).

According to RGIS (2021), an internationally renowned company that has been on the market for over sixty years and whose business model is the store and commercial inventory models, there are five vital reasons within a company as to why it is a regular inventory is required:

1. Identify theft and problems that reduce inventory levels
2. Achieving business objectives
3. Evaluate the performance of each element
4. Maximizing the process of reordering stock items 5.

Strengthen pricing strategies Each of these five inventory functions within a company will be described in detail, as well as the gains for a company and will identify the most used strategies in order to maximize profits as a result of management decisions.

The purpose of this paper is to present the role of inventory for a management team within a company in decision making. To demonstrate the importance of inventory in managerial decision making, the observational methodology was used, analyzing the views of well-known economists or business productivity specialists, extracting the most valuable information on this topic.

The article was structured as follows: in the introduction we present the inventory, its types, the periods in which it is made, but also the benefits it brings to an enterprise. Subsequently, 5 of the most important functions of the inventory will be treated and towards the end, a great importance is given to the famous Supply Chian Management, the key to success in a company.

Identifying theft and problems that reduce inventory levels

With the help of regular inventory product losses can be identified (Crețu, Denisa, 2020). These losses can be cause by several factors and some of the most well-known are theft by dishonest employees, losses cause by employee negligence – for which the employee is responsible for paying for such losses, for inputting an incorrect value for these losses, or if they are caught in modifying stock levels (Ursache Miruna, n.d). In this later case, the company is required to follow legal procedures for reclaiming the items as well as firing employees and following through with the theft charges to discourage possible future theft (Ceccar Business Magazine, 2021). An additional preventative measure is installing recommended cameras or even physical searches upon entering and exiting the workplace. Another cause for inventory losses are materials ordered but not received in time in which case the company’s management have to renegotiate with vendors regarding on time deliveries so that legal problems are avoided regarding a product or product category. Damaged product or damages done in transit or in the warehouse is another cause for inventory losses to avoid this issue it is recommended purchasing manageable quantities so that items that are predisposed to rapid deteriorations can be better managed to reduce unnecessary expenses for the company (Bahari-Kashani, 1989).

As soon as efficient solutions are found for eliminating progress at the organizational level, these losses caused by any of the mentioned reasons will keep decreasing until they are manageable or nonexistent which will result in less financial losses, thus increased profits (Ballou, Ronald, 1997).

1. Realizing business objectives

By watching stock levels, managers can observe what items have higher levels within that time period as well as items that are low in quantity. This can easily identify which products have been selling successfully to clients and those that have not which ultimately lead to making important decisions in regard to restocking or production processes for those item categories that do not sell well. Many expenses can be reduced in this way when it comes to items that have been sitting on the shelves without moving too much as well as minimizing the damage to the packaging or even identifying early expiration dates. All of these can reduce the profits for a company, or they can maximize profits by closely watching the products that are successful (Dam, 2019).

The diagram below (Figure 1) shows a situation in which a commercial business is recouping expenses such as direct materials, direct labor, and warehouse expenses. Four hundred units of this item have been sold out of one thousand which have been produced within one month. In this case, the business profits are happening as it goes instead of being delayed due to timing. On the other hand, if the business sells one hundred and fifty items or less that means that the category of items is not moving very well, and the financial resources of the company are not properly invested and perhaps the item has to be discontinued.

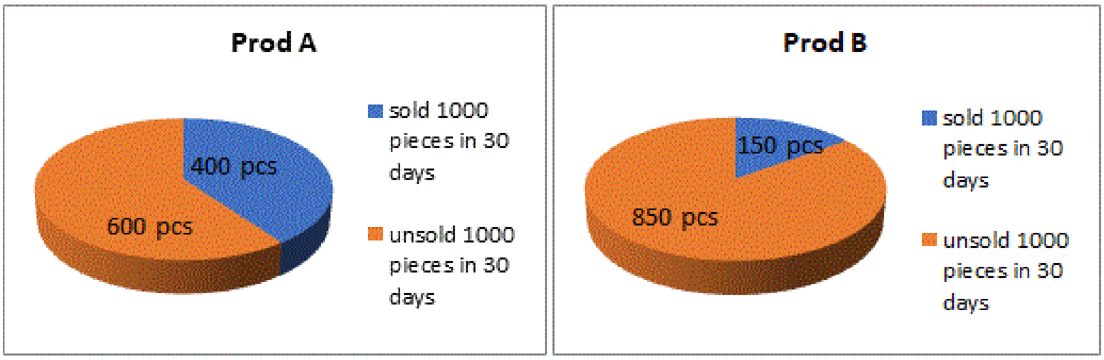

Figure 1. Commercial business recouping expenses

As it can be seen in the images above, product B is moving slower than product A, and recuperating the expenses for product B takes longer than product A. there is an obvious disadvantage as a result, and managers will have to make decisions to determine if it is worth continuing producing this product or not, or if other factors are affecting the demand such as marketing, insufficient promotions, etc. According to the guide of management activities for small and mid-sized businesses, maximizing profits can be achieved in two ways:

- Reducing expenses
- Increasing sales

To successfully achieve these two goals, a company should use a defined set of strategies such as:

1. Reducing direct cost through renegotiating contracts with vendors until desired acquisition costs are achieved: Reducing cost can also be achieved by watching inventory levels and determining which items are necessary or not for a particular moment in time for a company. Lastly, other costs can also be reduced such as certain employee benefits, equipment, supplies, etc.

2. Reducing indirect costs: These are harder to identify but can have a big impact on the bottom line. Some of the indirect costs include employee mistakes that the company with have to pay for, deteriorating equipment, wasted direct materials, etc.
3. Increasing sales that can be split into two categories: Increasing sales by using sales people which includes increased trainings, providing incentives such as providing commissions, etc. or by extending distribution channels or investing in marketing and
4. Increasing sales channels which can be achieved through different incentives for the employees, advancement for top sales people, as well as promotional offers or increasing prices in moderation.
5. Analyzing profit margins: Analyzing products that have been successful and doing small price increases will most likely not affect demand levels. For these items, that will have a small impact on demand, it is recommended continuous promotions through different channels. On the other hand, for the items that have been deemed unsuccessful, the recommended strategy is discontinuing them to avoid poor investment in resources (Guide to Practice Management for Small and Medium-Sized Practices, Fourth Addition, 2018).

2. Evaluate the performance of each item

According to professionals, the warehouse for each company represents a very important factor in maximizing profits. If the warehouse space is not utilized properly for preparing orders to ship or to quickly be able to find items, employees can potentially use more time in preparing the orders, which can ultimately lead to delays in shipping orders or even cancellation of orders by potential customers. If the warehouse space is poorly organized or too crowded, counting stock can prove to be difficult, as well has confirming stock. This can lead to errors in providing shipping times, disappointing customers, and possibly losing their business.

If the warehouse is not well organized, employees will lose precious time searching for products. Time that could be better utilized for the company. Chaos within a warehouse and uncertainty of the stock levels can lead to chaotic purchasing which should be avoided as much as possible in order to maximize profits.

A method to better organize warehouse space does not necessarily mean moving into a bigger property, but learning warehousing techniques, vertical stocking, and ensuring that the space is utilized to maximum capacity and efficiently. Martien Van Dem, expert in business productivity, recommends purchasing automated pickers and other mobile equipment that are more efficient than human labor in searching and verifying existing stock levels in the warehouse.

The products in the warehouse have to be periodically evaluated in order to observe and analyze their value at that point in time, to determine if these items are still in demand or not, and if they are satisfying current needs of customers. Items should also be analyzed to determine if there are newer and better product on the market with better advantages than existing ones etc. managers have to constantly research the market in order to maintain the company's position keep up with new trends and competition or otherwise face the possibility of bankruptcy.

According to IAS 2 it is recommended that the goods are taken out of inventory FIFO (First in First Out). This method is especially recommended for products that are perishable as well as for the product that are not which is why it is very important that the warehouse is organized in order to accommodate this inventory method. Items that have been put in the warehouse first have to come out first because their expiration date is faster approaching then newer items received. Another advantage of this method is reduced risk of deteriorating packaging or obsolete inventory due to sitting on the shelves too long.

In conclusion, a well-designed and organized warehouse will lead to maximizing profits and increased efficiency in labor, timely deliveries, client satisfaction, as well as more precise and quicker inventory process (To increase, 2019).

3. Maximizing the process of reordering stock items

It is extremely important that restocking items is proportionate to demand/sales levels so that production chaotic purchasing is avoided. Crowding the warehouse space with large quantities and unnecessary stock for an item or a category can lead to inefficient time use.

Increasing profits within a company will happen a lot quicker when the communication between customers and vendors is well defined and structured. It has been proven over time that in order to reduce transportation costs, it is necessary wait to fulfill a bigger order to maximize the space on a truck as opposed to fulfilling the order in smaller shipments. It is also recommended delaying purchasing of certain items to avoid wasted resources in transport. Especially when the company does not own transportation vehicles to help with restocking.

The increased competitor presence in any business forces companies to ensure that quality products and services are delivered on time. When quality or timeliness is not achieved potential customers can be driven to do business with competitors which ultimately results in reduced sales and reduced profit.

Counting inventory regularly is important when there are price increases for perishable products because in doing so the company can keep their loyal customers and most importantly avoid financial losses as a result of price changes in uncontrolled purchasing (Taleizadeh & Rasuli-baghban, 2015).

4. Strengthening pricing strategies

Operations and production management is focused mainly in maintain quality and production quantities, and this task ultimately resides with the manager of production. With the help of a good operation management team a company can adopt perfection from a technological and operational point of view. The main function of production management is to control, prevent and correct issues which help the company act in time before quality of production is diminished. Some of the most distinctive production management methods are:

1. Lean Manufacturing Method – it is designed to reduce waste, develop quality products, achieve on time delivery, and reduce stock level.
2. Kanban Method – this method helps control material fluctuations within a company and can significantly reduce inventory levels or completely eliminate them because its main purpose is eliminating super production, determining the ideal order of production, and continuous improvement of reducing stock levels. This method is also referred to as “7x none”: losses, delays, stock levels, lines, inactivity, unnecessary operations, movement.
3. HRP Algorithm Method – this method permits the control of types, quantities, and timing of production, but most especially control over inventory. This algorithm transmits, in real time, stock levels and delivery times.
4. Benchmarking Method – its main objective is innovation, adapting and searching for new solutions especially using competition as inspiration to bring something new to the market.

In conclusion, production management represents a pillar of resistance for a company producing items and has to be watched closely and responsibly buy management. This will ensure a smooth process of production, quality, and strict monitoring of stock levels in the technological process (Rodica, Rohan, 2013).

When it comes to the importance of production management of a company, it can be said that SCM (Supply Chain Management) is the most important for the success of a company. Only companies capable of implementing SCM will be successful in adopting new technologies and in being flexible to changes brought by the passing of time. Supply chain management includes all restocking activities, purchasing, conversion, and everything that is related to logistics, and to be more exact, all activities involved in fulfilling customer demands.

Historically, SCM’s main purpose has been to increase efficiency and reduce costs. Presently this purpose remains, but the customer is the one establishing indirect priorities in SCM management.

According to some of the big analytical companies, such as AMR Research and Forester Research, supply chain management offers the following competitive advantages:

- Increasing profits by 5-15%.
- Reducing costs and processing time of orders by 20-40%.
- Reducing time to enter the market by 15-30%.
- Reducing acquisition costs by 5-15%.
- Reducing stock levels by 15-40%.
- Reducing production costs by 5-15%.

In order for such a model to work, manager's decisions have to be analyzed and made after extensive market research has been made. Market research includes five different areas: production, inventory, location, transport, and information.

1. Production refers to the capacity of an integrated model of producing and storing certain products in the warehouse.
2. Inventory is kept for raw materials as well as finished good, and in order to do so, there are three types of inventories needed:
   - Cyclic inventory represents the quantity of inventory necessary to satisfy demand for a certain product between the purchasing times of that item.
   - Security inventory is a type of inventory kept as a security measure kept against unforeseen events
   - Seasonal inventory is defined as predicting demand increases for a certain period of time.
3. Location refers to the geographic area in which the manufacturing or warehouse plants are located, as far as restocking goes. Managers have to consider a series of factors such as: facility costs, labor costs, skills of work force, infrastructure, taxes, closeness to vendors and customers etc.
4. Transportation includes all activities from raw materials to finished goods between the different parts of the manufacturing company. This can be categorized as six types of transport: naval, railways, pipelines, arial, or electronic. The latter one being the most advantageous.
5. Information refers to data necessary for managers to make decisions and can have two main outcomes.
   - Coordinating daily activities for efficient functions in production inventory, location, and transport operations.
   - predictions and budget for anticipating demand.
6. Operations within the chain of distribution/purchasing include planning, purchasing, production, and delivery.
7. Planning refers to organizing step-by-step activities of the other three main areas, thus predicting demand, anticipating item prices, managing inventory.
8. Purchasing refers to the efficient acquisition of raw materials necessary to produce finished goods and services.
9. Production includes all activities involved in transforming raw materials into finished goods. Production operations include creating the product, managing the manufacturing process, and managing the facilities.
10. Delivery includes process of receiving and respectively transporting orders from the warehouse to the customer. For achieving the high levels of demand a company needs to have a plan that includes:
    - Production capacity
    - Level of production utilized
    - Inventory levels
11. Inventory management is a complex set of techniques utilized by a company to administer inventory with the purpose of reducing costs as much as possible (Ronald Ballou, 1997).

Discussion and Conclusions

Inventory plays an extremely important role in a well-functioning company, especially in a large business where stock levels have to be closely monitored and evaluated to avoid potential losses, damages, or theft by dishonest employees. As experts mentioned, managing inventory is an indispensable step in the process of production and functioning of a business.

Managers and employees should utilize an inventory system adequate for the industry they are in because the type of activity and size of the company dictates the type of inventory that should be used.

As mentioned above, inventory is a very important key in managers' decisions regarding the strategies adopted by them for the smooth running of the company.

The inventory reveals the pluses and minuses of stocks, but also what are actually the problems related to their turnover, and this makes managers turn their attention in that direction and can largely influence their decisions.

For maximizing profit of a company, there are steps that have to be achieved such as reducing costs and increasing sale through different methods applied on an internal level. To increase sales, managers and employees need to have a very clear and actual representation of stock levels, and to have enough items stocked (if applicable) and well organized to minimize labor and maximize results.

Managers within a company should make wise decisions in the five areas of maximum interest: production, inventory, information, transportation, and location. Supply chain management, a vital model for a company, will increase the chances to maximize profits and satisfy demand. This SCM model is necessary for companies nowadays, and its purpose is enhancing the positive influences that it brings to a company’s management if it is utilized adequately and responsibly. Ultimately, it will help with all aspect of quality and operations to satisfy customer demands.

References

1. Bahari-Kashani, H. (1989). Replenishment schedule for deteriorating items with time-proportional demand. *Journal of the operational research society, 40(1), 75-81. https://www.tandfonline.com/doi/abs/10.1057/jors.1989.7*
2. Ballou, Ronald H. (1997). Business logistics: importance and some research opportunities, August 1997, *Management and Production, vol.4, nr.2, pp 117-129* ISSN 1809-4538
3. Ceccar Business Magazine (2021). *Inventarierea patrimoniului, operațiune obligatorie în vederea întocmirii situațiilor financiare* , Issue 4, 5-11 february, ISSN 2668-8921 Retrieved online at *https://www.ceccarbusinessmagazine.ro/inventarierea-patrimoniului-operatiune-obligatorie-in-vederea-intocmirii-situatiilor-financiare-a4419/*
4. Crețu, Denisa (2020). *Inventarierea. Dosarul de inventar*. Retrieved online at https://ced.ro/articole/2020/inventarierea-dosarul-de-inventar/
5. Ursache Miruna (n.d). *Managementul dezvoltarii afacerii: presiunea pe resurse financiare*. Retrieved online at https://blog.smartbill.ro/presiune-resurse-financiare/
6. Mateș, Dorel; Grosu, Veronica; Domil, Aura; Mihăilă, Svetlana; Socoliuc, Marian; Bogdan, Oana; Pordea, Daniela (2020). Organizarea contabilității în cadrul entităților din domeniul producției. CECCAR Business Review, Issue 2, pp 10-18. ISSN 2668-8921
7. IFAC (2019). *Ghid de gestionare a activităților pentru practicile mici și mijlocii, Ediția a IV-a*. Available online at https://ceccar.ro/ro/wp-content/uploads/2019/02/Ghid-de-gestionare-a-activitatilor-pentru-PMM-ed-IV.pdf
8. RGIS (2021*). De ce este importantă inventarierea*?. Retrieved online at https://www.rgis.ro/perspectiva-industriei/de-ce-este-important%C4%83-inventarierea
9. Sap (n.d). *Implementation Services*: Inventory optimization. Retrieved online at https://www.sap.com/romania/services/implementation/inventory-optimization.html?pdf-asset=04c08a34-647c-0010-82c7-eda71af511fa&page=12
10. *Guide to Practice Management for Small and Medium-Sized Practices, Fourth Addition, 2018*.
11. Taleizadeh, A. A., & Rasuli-baghban, A. (2015). Pricing and inventory decisions for deteriorating products under shipment consolidation.*International Journal of Advanced Logistics*,4(2),89-99.

12. https://www.tandfonline.com/doi/abs/10.1080/2287108X.2015.1049683?journalCode=tjal20
13. The European Business Review (2021). *Effective Inventory Management Techniques to Maximize Warehouse Efficiency.* Retrieved online at https://www.europeanbusinessreview.com/effective-inventory-management-techniques-to-maximize-warehouse-efficiency/
14. To increase (2019). *Boost Your Warehouse Efficiency and Make Operations Easy with the Power of Mobile*. Retrieved online at https://www.to-increase.com/business-productivity/microsoft-dynamics-365-fo/anywhere-logistics