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Investigation of inventory management practices at m. products bakery and confectionary limited

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Abstract

Managing stock effectively is important for any organization, running a bakery firm is no exception because without enough stock, services to the customers will come to an abrupt stop. M. Products Bakery and Confectionary Limited provides services for 24 hours and accordingly, needs to keep stock of certain materials and other supplies in order to fulfill its duties effectively. It is generally held opinion that where stock management is poor, it greatly affects the company's operations as well. Hence this study investigated the Inventory management Practices, M. Products Bakery and Confectionary Limited taken as a case study. A sample of 50 respondents was selected for the study. Questionnaires, interviews and observation were used in attaining data from respondents. The study revealed that the company ensured lean inventory management systems and strategic supplier optimization and most importantly the use of inventory recording technique (stock valuation using FIFO, inventory and issue methods) to manage its inventory. The study also revealed that the company had a computerized system as an inventory management practice but it had no existing inventory model. The study revealed that Inventory Management Practices have impacted on the company's operations, profitability and the ability of the company to meet customer demand. However, among the gaps within the inventory management practices at M. Products Bakery and Confectionary Limited was limited space, delayed orders from suppliers leading to insufficient inventories, poor quality products from suppliers, bureaucratic process in procurement, purchase of raw materials with early expiration date, increased damages due to poor handling during production, overstocking/under stocking, weak management system, lack of training of the employees and unqualified employees, use of manual inventory management system in some departments, scattered storage facilities and poor transportation mechanism (resulting into spoilage of materials), theft and attacks from rats which reduces the amount of inventory available for sale, reduced demand from some customers especially during the covid19 outbreak and heavy taxes from the government. It was therefore recommended that there is need to expand on its production facility and also adopt advanced warehouse techniques, management to emphasize the importance of inventory management, company should improve its relationship with its suppliers, adopt accurate forecasting techniques, should train more executives and employees and also adopt an advanced information system such as Electronic Data Interchange.

Keywords: Inventory; Inventory Management; Stock; Stock Management; Bakery

1. Introduction

M. Products Bakery and Confectionary limited is a private limited liability company owned by three directors. It was started in 1978 and registered as a private company in 1988. The vision of the company is to become the leading producer of bread and other bakery products in Uganda and East Africa as a whole and its mission is to feed a health nation. The core goals and objectives of the company are to provide the following; employment, quality bread, improved standards of living and revenue to the government. The Company deals in Bakery and Confectionary products such as Bread, Cakes, Daddies, Cookies, and Pastry. Managing stock effectively is important for any organization, running a bakery firm is no exception because without enough stock, services to the customers will come to an abrupt stop.

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Inventory management is beneficial in many ways for an organization, it assures that customer demands are met at right time leading to enhanced customer service and satisfactions, the company also should make sure that there is rarely too much or too little stock on hand. Having an adequate supply of a particular product to meet customer demand is crucial to both sales increase and customer service, If customers **come** to business to purchase a product and it is out of stock the **sale** is lost forever and the customer will probably go to competitors to find what they need [1]. Thus, without inventory management it would be difficult for any company to maintain control and be able to handle the needs of the customers [2].

Stock represents the largest investment in assets for most **organizations**. The Uganda objective 2040 statement, "A transformed Ugandan society from a peasant to a Modern and Prosperous Country within 30 years," outlines development paths and measures to operationalize Uganda's objective.". One major barrier that has impeded Uganda's development since its independence is the country's weak private sector. However, it has been noted in previous research that one strategy to support the expansion of these industries is the application of formal inventory management practices. In a world where globalization has fueled fierce competition such as raising consumer awareness and advancing technology, organizations **which** are driven to achieve widespread achievement and competitiveness in the market must at all times ensure service availability to its customers since they can obtain items from somewhere else [3].

The bakery and confectionary industry represent vibrant sectors of the food industry, characterized by diverse product offerings, fluctuating consumer demands, and perishable inventory. Efficient inventory management within this industry is crucial for meeting consumer expectations, minimizing waste, and optimizing profitability [4] [5]. Consumer preferences within the bakery and confectionary industry are subject to frequent shifts, influenced by factors such as health trends, flavor innovations, and cultural influences. Additionally, seasonal demands, such as increased sales during holidays and special occasions, further compound the complexity of inventory management [6]. Furthermore, global market trends such as e-commerce expansion, health-conscious consumerism, and sustainability initiatives exert significant influence on inventory management strategies within the bakery and confectionary industry [7].

The main objective of every firm is to boost productivity with fewer resources and enhance quality [8]. There are **numbers** of techniques of inventory that can enable a firm to achieve such objectives; however, the key and usual technique is to streamline the company's inventory. This can be achieved through efficient inventory management and control techniques which involves supervision and control of the ordering, storage, and holding the components used in the process of producing items as well as the quantities of the finished products. Therefore, managing inventory has become an important operational weapon for products and services companies wishing to survive the competition in the market. Inventory represents the items which are either accumulated for sale or they are in process for manufacturing or in form of materials which are yet to be utilized [9].

The goal of Inventory Management is to explain the dynamics of inventory management's principles, concepts, and techniques as they relate to the entire supply chain (customer demand, distribution, and product transformation processes). The interrelationships of all functions will be defined [10]. Manufacturing firms apply various techniques in the management of their inventories. The practices adopted have a significant impact on returns, profitability and volume of sales. Manufacturing firms that efficiently apply these practices have an excellent financial performance [11]. An inventory system is a set of Policies and Controls that monitors levels of stocks and determine which levels should be maintained, when stock should be replenished, and how large orders should be fulfilled. Every business is now attempting to boost output by cutting production costs through the use of inventory management practices. These methods aid in formulating a plan for bringing about a steady increase in manufacturing units' operational performances. In order to prevent money from being trapped in the form of stock, businesses employ inventory management to maximize resource utilization and make sufficient investments in inventory [12]. Developing and managing various inventory levels as well as the process of making low-cost goods available are all included in the term inventory management practices [13]. The best resources to have economic worth are thought to be inventories. More productive uses of capital can be made possible by better inventory management [14].

There are always many concerns related to better practices when it comes to inventory control. According to [15], inventory control issues are regarded as a key idea for organizational development. Numerous studies show that the manufacturing sector loses production and potential due to **the** inability to regulate inventory [16]. In terms of raw materials, work-in-progress (WIP), and finished products (FIG), the majority of businesses have not yet implemented inventory control procedures. According to [17], the most significant component of the inventory in terms of production rates is raw materials. M. Products and Confectionary Limited has always been faced with limited space, increased damages, under stocking, theft of produce which has accounted for almost 60% of the company's production costs. This is attributed to the poor inventory management practices as a result of lack of training and failure to put in place a well

streamlined inventory management system. Therefore, the study aims at finding a lasting solution to the poor inventory management practices used by the company through;

- i) Studying the existing inventory management practices at M Products bakery and confectionary limited
- ii) Examining the impact of inventory management practices at M products bakery and confectionary limited
- iii) Establishing mitigation measures for improvement of inventory management practices at M. Products Bakery and Confectionary Limited.

2. Material and methods

2.1. Research Design

Research design is defined as a structure of the study, indicating how research resources were organized, and how respondents were grouped. It gives details of how the study was organized and implemented. This research adopted a cross sectional research design based on one general approach of research design. This research design was used because the study was only carried out once and it seeks to create a great understanding of the phenomenon. Also quick, efficient and accurate information could be obtained.

2.2. Study Area and Population

2.2.1. Study Area

This investigation was carried out at M Products Bakery and Confectionary limited a bakery firm located at plot 780, Makindye Kampala district. It provides all bakery and confectionary products to the community. Products include bread (buns, rolls and loaf bread), cookies, cakes, doughnuts, and sweet rolls.

2.2.2. Study Population

Population refers to a cluster of statistically equivalent individuals or a collection of individuals who are generally exchangeable [18]. This study covered M Products Bakery and Confectionary limited employees who were divided into departments. The departments included inventory management, purchasing department, financial department and the Production department. This population was used because they were reliable sources of the relevant data which was required for the study.

2.3. Sample Size Determination

2.3.1. Sample Size

A population is all the items being studied, whereas a sample is a subset or a piece of the entire population. But a sample that satisfies the criteria for effectiveness, responsiveness, adaptability, and dependability is ideal [19]. The number of objects or people chosen from a population to represent the entire population is known as the sample size. Neither an abnormally large nor tiny sample size is acceptable. It should be ideal; and an ideal sample is one that satisfies the requirement of effectiveness, responsiveness, flexibility, and reliability [20]. But also, budgetary constraint must be taken into considerations because they greatly affect the decision made about the sample and sample size to be considered [19]. This study therefore used a sample size of 50 respondents. The selection of the sample was based on the readiness and availability of the respondents.

2.3.2. Sampling Procedure

Sampling procedure refers to the technique utilized to choose representative components, participants, or responders from the available or target population. Purposive sampling is a non-probabilistic sampling method that was employed in this investigation for carrying out the research. Non probabilistic technique is the technique that focuses on in depth information, not generalizations of the studies and elements in the population. Under this technique the population does not have a known probability of being selected. Purposive sampling was used in the study since it was necessary to gather data from the appropriate people who assisted to come up with valid and reliable information that was used. Here only productive sample was selected in order to come up with reliable data. This sample was selected because it was informative and had the required characteristics of giving the required information.

2.4. Data Sources

Both primary and secondary data were used in this study to examine inventory management practices at M products bakery and confectionary limited.

2.4.1. Primary Data

Primary data sources are ones that are newly gathered and appear to have an original nature [20]. Personnel ([face to face](#)) interviews, structured questionnaires were used in this study whereby it was requested of the responders to complete the questionnaires. In order to get the respondents' choices and comments, the questionnaires included both closed- and open-ended questions. This study also made use of participant observation. Participant observation is a situation where participation is active on the part of the observer in the proceeding.

2.4.2. Secondary Data

This data was obtained by reviewing technical reports and documents from various sources like the literature about inventory management, Kyambogo university library, internet and journals about inventory management. It is used data information that comprises published as well as raw data [21].

2.5. Data Collections

The study collected information from the field using basically the following pointed out investigation methods of data collection, observation, interview, and questionnaire and reviewing various documents relating to the topic under study.

2.5.1. Observation

The process by which an investigator looks around him without asking respondents questions is called observation. This approach of gathering data describes the situation of being in or near a continuing environment and documenting facts as they are seen, heard, and felt. In this instance, the researcher is actively involved in the study environment or works there. Participant observation was used in this investigation because it ensured that only reliable data was used. The advantages of this methods include; it gives an additional and more precise details about the conduct of the individual than interviews and questionnaires, can verify the data gathered, particularly that which comes from interviews on selective topics, provides first-hand information and approaches reality from its natural setting and the study events that are involved.

2.5.2. Interviews

This is the method of data collection that incorporates presentations of oral verbal cues and respond with verbal responses. It is the most flexible method that can adjust to the world of participants with less or no conveniences in terms of venue method. It can be conducted from where to accommodate the respondents' needs. It also provides in depth data on the subject at hand [22]. For an interview to become a successful method, parties must be ready and interested in the exercise, the interviewer must have the required skills to conduct the interview and the interviewee must be ready to offer information and correctly. This study specifically used personal (face to face) interview where the interviewer asked questions to the other persons in a face-to-face contact, the interviewer collected the information [20]. An interview guide was used only to collect information from the inventory management team, Quality Assurance Officer, production supervisor and different managers. This is because this allowed flexibility, provided an in-depth data on the subject, appropriate with illiterate population, ability to record visual seen responses, respondents are not constricted as the questionnaire and has viable and rich data. This enabled the researcher in getting the right picture of the inventory management at M Products Bakery and Confectionary Limited.

2.5.3. Survey Questionnaires

A questionnaire is merely an organized list of inquiries designed to obtain data. It's a method that considers a series of questions that aim at acquisition of information from respondents [23]. The advantages of this method are; it is inexpensive, can be used for a wider population, doesn't involve interviewer bias and best for sensitive or personnel questions. Both closed-ended and open-ended structured questionnaires were used in this investigation. Structured questionnaires are those with definite and predetermined questions. The questions were either open-ended, allowing for a forceful response, or closed, requiring a "yes" or "no" response, but these questions were constructed in advance not during questioning [20]. A questionnaire guide was used to collect data related to inventory management practices from other departments for example; purchasing department, financial department and the production department.

2.5.4. Documentary Review

[20]states that when the researcher utilizes secondary data, then he/she has to look into various sources where he is certain to obtain data, in this case Kothari further contends that the researcher avoids problems associated with collection and analysis of original data. Says using document review as a method of data collection, helps the researcher to avoid duplication of work done by other researchers. The documents that were reviewed under this study included; articles, journals, research reports, published books, newspapers and any other document such as policies that were provided by M. Products Bakery and Confectionary Limited that are related to inventory management.

2.6. Data Analysis

Quantitative data analysis refers to the means of analyzing data that is numbers based or data that can be easily converted into numbers without losing any meaning [24]. This section clearly indicates how data was analysed once collected. Under this study the data was analysed using statistical package for social sciences (SPSS). The printout from the SPSS was analysed and presented in form of tables and then discussions of the information was done for quantitative data. So, since the study dealt also with qualitative data, presentations of thematic findings was done using manual coding. Both structural and textual descriptions were used in the results section. Textual descriptions are significant statements used to write what participants experienced. Structural descriptions are interpretations of the setting that influenced the participants' experience.

2.7. Ethical Considerations

Before administering a questionnaire, a letter asking for authorization to carry out the study was taken to selected departments. Upon the approval, the researcher asked the respondents to take part in the study and included a covering letter with the questionnaire. The research followed some ethical considerations which included the following;

- i. Confidentiality, Confidentiality was guaranteed to the respondents. Their names were not written on the questionnaires that they were given and did not appear anywhere in the report. Even the provided data was solely utilized for research purposes.
- ii. Respect, all respondents in the research were respected. Respect included honoring the respondent's viewpoint, for instance the decision to end the interview where delicate, Inquiries and a questioning style that is particularly uncomfortable for everyone was considered.
- iii. Objectivity, additionally, the research guaranteed objectivity throughout its execution, and any attempt at bias was regarded as unethical.
- iv. Voluntarism, the study ensured that the respondents were not manipulated when taking part in the study. All that was disclosed to the respondents was the study's aim and their agreement to take part in it.

3. Results and discussion

The inventory management practices were examined in the study at M. Products Bakery and Confectionary Limited in Kampala district. The presentations, analysis, and interpretation of the study's findings are highlighted in this chapter. The presentations are made in accordance with the study's objectives. Those that were interviewed as respondents were the Chief Engineer, Quality Assurance Officer, Managers (Finance and Stores and Assistant stores manager) and production supervisors. Tables are used to display the results and for every table, narratives are available).

3.1. Response rates of respondents

3.1.1. Questionnaire Responses

Table 1 Questionnaire Response rate

Variable	Number of respondents	Percentage (%)
Response	45	90
Non response	5	10
Total	50	100

From a total of 50 specific study participants, 45 were contacted and gave a favorable response by taking part in the research, providing 90% response rate. The reason for the 10% failure rate was that the respondents were unavailable

for the study because they were busy and out of the office, even though multiple attempts were made to contact them as stated in Table 1.

3.1.2. Interview Responses

The study also employed interviews to collect data from the respondents. Table 2 presents the response rated categories of respondents that were subjected to interviews

Table 2 Interview Response rate

Key subgroup	Number	Interviewed	Percentage (%)
Engineers	1	Chief engineer	12
Managers	1	Finance manager	12
	2	Stores and Assistant stores manager	25
Quality Assurance office	1	Quality Assurance officer	12
Supervisors	3	Production supervisors	38
Total	8		100

As presented in Table 2, it reveals that the researcher managed to interview only 8 respondents (i.e., 1 engineer, 3 managers, 1 Quality Assurance officer and 3 supervisors) at M. Products and Confectionery Limited. The questionnaires and interviews were the main techniques of data collection used by the researcher. These were supplemented by observations and review of various literature. These data collection techniques were used to collect data on the specific objectives and the findings are explained in the subsequent section.

3.2. Demography characteristics of the respondents

This data was obtained using a questionnaire. The characteristics captured from respondents have been presented in Table 3.

Table 3 Demographic characteristics of respondents

Variable	Category	Number of respondents	Percentage (%)
Genda	Male	35	78
	Female	10	22
Age (Years)	Below 18	1	2
	18-30	25	56
	31-40	15	33
	41 and above	4	9
Marital Status	Single	25	56
	Married	15	33
	Separated	4	9
	Lost their spouse	1	2
Education Level	Primary level	2	4
	Secondary level	30	67
	Tertiary level	8	18
	University	5	11
Period of service	Less than I year	20	45
	2-3 years	2	4
	4-5 years	5	11
	Above 5years	18	40

From table 3, the investigation comprised 45 responders, and the findings indicate that among them, 35 responders (78%) were male and 10 responders (22%) were females. This indicates that the company employs more male than the females attributing to the hard and hectic work involved in the bakery industry. Furthermore, 1 responder (2%) was below 18 years, 25 responders (56%) were between 18-30 years, while 15 responders (33%) were between 31-40 years and 4 responders were 41 and above representing 9%. Additionally, from the above observation, it clearly indicates that many of the responders were between the ages of 18 and 30 with 56 % and 2% of responders had a minimum age of under 18 years. This means that more of the responders were mature people thus most of the findings of the study were based on their right information given.

Table 3 also provides information about the respondents' marital status. With which single respondents were having a valid percentage of (56%), followed by the married with a percentage of 33%, 9 % representing the divorced respondents and the 2 % representing the widowed. Regarding the educational level of the respondents, most of the respondents were at secondary level with a valid percentage of 67 % followed by those at tertiary level with 18%, 11% those at university level and then those at primary level with a percentage of 4%. Lastly, results show that 45% of the respondents indicated that they had spent less than a year at the job, 4% had spent 2 to 3 years while 11% had spent 4 to 5 years and 40% had spent 5 years and above at the job.

3.3. Existing Inventory Management Practices at M. Products

The study's primary goal was to investigate the Inventory Management Practices at M. Products Bakery and Confectionary limited. Total inventories held by M Products Bakery and Confectionary limited constitute mostly bakery products and ingredients. Among the raw materials (perishable, dry raw materials and raw materials that require cold room for storage) they include sugar, eggs, wheat flour, banana, yeast, baking powder, boxes, milk, salt, water, butter, fruits and fats. Finished goods included bread, cakes, daddies, cookies, buns and confectionary products. Maintenance and repair inventory include ovens, slicer machines, lubricants and engineering components.

The respondents in both the questionnaire guide and the interview guide were asked if there exist an Inventory Management System / Policy. They all responded that there is an Inventory Management Policy in the company. With regards to how stock is replenished, there were valid responses with most of the respondents indicating that stock is replenished basing on the internal customers (the salesmen) request. Stock taking is done at a stipulated time interval (it is done on a daily, weekly and monthly basis (for 6 months) depending on an order that is just enough for production. The company used a two-bin system, FIFO principle and requisition forms to manage its inventory meaning that the company has not yet used any inventory model

3.3.1. Questionnaire responses

The researcher employed the use of questionnaires to examine the current inventory management practices at M. Products Bakery and Confectionary Limited. Results obtained using a questionnaire guide are presented in Table 4.

It was discovered as presented in Table 4 that M. Products Bakery and Confectionary Limited ensured Lean Inventory Systems and Strategic Supplier Relationships Methods to manage its Inventory within the company. The study revealed that 78% of the respondents said that the company used Inventory Recording Technique(stock valuation using FIFO, inventory and issue methods) to manage its inventory, 33 % of informing suppliers in time so as to supply the quantities in time, 45% Inventory Control Techniques including a two bin system, prediction, and periodic review technique (basically monthly orders and daily orders for perishable goods), 22% using a computerized and manual system in certain departments, 27 % proper communication between the bakery and its suppliers, 4% operation of Just in time purchasing principle for example in situations where no safety stock is needed for particular materials, 9% operation of material requirements planning (MRP). Since inventory recording technique/ method had the highest percentage of 78%, this implies that the company real used inventory recording technique/method as a way of managing its inventory.

Table 4 Current inventory management practices

S.no.	Variable	Frequency	Total	Percentage (%)
1	Inventory recording technique (stock valuation using FIFO, and inventory and issue methods)	35	45	78
2	Informing suppliers in time so as to supply the quantities in time	15	45	33
3	Using a computerized and manual system in certain departments	10	45	22
4	Inventory control techniques including a two-bin system, prediction, and periodic review technique (basically monthly orders and daily orders for perishable goods).	20	45	45
5	Proper communication between the bakery and its suppliers	12	45	27
6	Operation of Just in time purchasing principle for example situations where no safety stock is needed for particular materials	2	45	4
7	Operation of material requirements planning (MRP)	4	45	9

3.3.2. Interview responses

Results of the existing Inventory Management Practices used at M. Products Bakery and Confectionary Limited obtained using an interview guide revealed that:

- i) Computerized system that tallies to get the quantity to be ordered said by the Quality and Assurance officer was efficient enough compared to the manual system that was used before. The respondent further gave some of the disadvantages of the manual system that the company used before and he was like the system was too hectic and many mistakes were reported hence resulting into unrealistic plans.
- ii) Periodic review technique (p system) Ordering quantity that is just enough for the production (ordering is made daily, weekly and monthly basis (after 6 months)).
- iii) Just in time technique basing on customer orders. The respondent further explained where this technique of inventory management was used in the company. In case of a customer's request that requires perishable raw materials like milk; the company mostly used this technique because some of its raw materials do not require a buffer stock. Therefore, demand for such raw materials is based on the customer orders in order to avoid spoilage of the raw materials.
- iv) FIFO principle (especially for dry and perishable raw materials and finished products). The interviewee explained where this principle was used. He explained that since the breads and some other bakery products have an early expiration date of 9 days, there is need to use this method, that is to say, the oldest products in the company's inventory were sold first hence the FIFO principle.
- v) Supplier optimization was also used by the company in a way of having negotiations in different aspects with its suppliers hence enjoying benefits like reduced transaction overheads, better buying costs and terms, improved supply quality thus lowering the inventory carrying costs. Stocking raw materials in time, due to the fact that the company informed its suppliers for specific components in the right time.

Most of the inventories held by M Products Bakery and Confectionary limited constitute mostly bakery products. Among the raw materials (perishable, dry raw materials and raw materials that require cold room for storage) they include sugar, eggs, wheat flour, banana, yeast, baking powder, boxes, milk, salt, water, butter, fruits and fats. Finished goods included bread, cakes, daddies, cookies, buns and confectionary products. Maintenance and repair inventory include ovens, slicer machines, lubricants and engineering components. The respondents all indicated that there is an Inventory Management System/ Policy in the company. But the respondents also indicated that the company had not used any Inventory Model but rather used a two-bin system, FIFO principle and requisition forms to manage its inventory. The study further revealed that the company ensured Lean Inventory Management Systems and strategic supplier optimization and most importantly the use of inventory recording technique (stock valuation using FIFO, inventory and issue methods) to manage its inventory. This is supported for by [1] who cites that stock accounting is very important in any firm as it registers the changes in the level of stock held to realize maximum value and avoid excessive expenditure in inventories. As per government notification dated 28th June 1977 schedule 1 regulation 3 sub section 1 to 7, provides that Manufacturing industries are required to maintain records which shall indicate actual quantity and

value of each raw material used in the manufacturing operations. And finally, the study revealed that the company also had a computerized system that was used to monitor the inventory within the company.

3.4. The impact of Inventory Management Practices at M. Products

3.4.1. Perceived effects of inventory Management

From the questionnaires issued and interviews carried out, the following are the impacts of Inventory Management Practices at M. Products Bakery and Confectionary Limited:

- i) Improving company's operations, all respondents both for the interview and questionnaire guide clearly identified that efficient Inventory Management Practices improved the company's operations. This was due to the fact that the company requested for raw materials in the right amount of time which makes production activities to move on smoothly without any disruption unless for un foreseen circumstances for example oven breakdown.
- ii) Improving company's profitability, all respondents both for the interview and questionnaire guide pointed out that Inventory Management Practices had enabled the company to increase on its profits. This is because of the ability of the company to make earlier deliveries hence minimizing the cost of lost sales.
- iii) Ability to meet customer's demand, all respondents pointed out that inventory management practices had enabled the company to meet customer demands. This was supported by giving ways of how this was achieved, the company could make sure that almost all the raw materials are available, all employees were present both for the day and night shifts, all sales men reported at the company almost every day for clear evaluations.
- iv) Salary satisfaction, all employees given questionnaires pointed out that if the company effectively managed its inventory, more products of the required quality were produced resulting into increased returns/sales which in return increase the salary given to them.
- v) Minimizing the number of damaged products, the production manager identified this impact due to the fact that the company ensured Good Manufacturing Practices (GMP) and Standard Operating Procedures (SOPs) during production.
- vi) Reduced requisition costs, the company ensured close relationship with its suppliers which made the company to bargain favorably for the raw materials to be used in the production activities, hence lowering the issuing and delivery costs of the raw materials. This was confirmed by most of the Managers that is to say; Stores Manager, Finance Manager, Production and the Quality and Assurance officer of the company
- vii) Increased number of customers especially in the covid 19 pandemic outbreak, the Quality and Assurance Officer identified this impact by stating that before corona virus outbreak, customers used to wait for a particular product but now they demand for available and relatively low cost products.
- viii) Production of quality products, the entire production team identified this impact due to the usage of Inventory Management Practices of the company. They defended this point due to the fact that the company was able to train most of the new employees for the specific job assigned to them.

The study revealed different impacts of Inventory Management Practices at the company including improving company's operations, improving company's profitability, ability to meet customer's demands, salary satisfaction, minimizing the number of damaged products, reduced requisition costs, increased number of customers, and production of quality products. From the study results, it is revealed that all respondents for both the interview and questionnaire guide identified the impact of improved company's operations, improved company's profitability and ability to meet customer demand due to Inventory Management Practices. This implies that Inventory Management Practices of M. Products Bakery and Confectionary Limited has an impact on the company's operations, profitability and ability to meet their customer's demand. Various authors concurred with the findings of the study that Inventory Management Practices have a significant impact on the company's operations, profitability and the ability to meet its customer demand especially [25] who indicated that a proper Inventory Management Practice should impact on the company's efficiency, profitability, increased customer/ service optimization and facilitating competitive ability.

Furthermore [26] argues that to meet customer demand, firms have to ensure that stock outs are avoided without incurring high inventory costs. Notwithstanding the best practices in Inventory Management at M. Products Bakery and Confectionary Limited, there were some gaps that hinder the effectiveness of the various practices of inventory in the company. The study revealed that some of the gaps include, limited space, delayed orders from suppliers leading to insufficient inventories, poor quality products from suppliers (due to the absence of a laboratory within the company), bureaucratic process in procurement, purchase of raw materials with early expiration date, increased damages due to poor handling during production, overstocking/under stocking, weak management system, lack of training of the employees and un qualified employees, use of Manual Inventory Management System in some Departments, scattered storage facilities and poor transportation mechanism(resulting into spoilage of materials), theft and attacks from rats

which reduces the amount of inventory available for sale, and reduced demand from some customers especially during the covid 19 outbreak. This supports the previous studies especially by [27] mentions a number of challenges in Inventory Management which include unqualified employees in charge of inventory, adequate training of employees, and an realistic plans which results into failure to predict how well the company may do in future.

3.4.2. Gaps identified in the inventory management practices

From the study results, Inventory management Practices had positively impacted M. Products bakery and Confectionary Limited in the above ways, however there were some gaps in inventory management practices that were identified by respondents given Questionnaires and are presented as shown in Table 5.

Table 5 Gaps identified in the inventory management practices at the company

S.no,	Variable	Frequency	Total	Percentage (%)
1	Delayed orders from suppliers leading to insufficient inventories	25	45	56
2	Limited space (for both storage and production activities) so the company can't have enough safety stock to cater for changes in demand	30	45	67
3	Purchase of raw materials with early expiration date	20	45	44
4	Weak management system	17	45	38
5	Poor quality products from suppliers (and the company has no laboratory to test for the quality of such products, they only base on random assumptions)	25	45	56
6	Increased damages due to poor handling during production	18	45	40
7	Reduced demand from some customers especially during the Covid 19 outbreak like schools	5	45	11
8	Lack of training of the employees and unqualified employees (since the company only has one Bakery professional)	15	45	33
9	Use of Manual Inventory Management System in some departments	12	45	27
10	Bureaucratic process in procurement	20	45	44
11	Overstocking/under stocking	17	45	38
12	Scattered storage facilities and poor transportation mechanism (resulting into spoilage of materials)	7	45	16
13	Theft and attacks from rats which reduces the amount of inventory available for sale	6	45	13

As presented in Table 5, it was revealed that over 30 respondents complained about the limited space of the company that is to say the space for production and storage activities is too small for the required activities resulting into accidents that in return cost the company. Limited space had the highest percentage of 67 %. Other gaps in the Inventory Management Practices as presented by the respondents include “Delayed orders from suppliers leading to insufficient inventories”, “Poor quality products from suppliers (and the company has no laboratory to test for the quality of the products, they only base on random assumptions)”, “Bureaucratic process in procurement”, “Purchase of raw materials with early expiration date”, “Increased damages due to poor handling during production”, “Overstocking/under stocking” “Weak management system”, “Lack of training of the employees and un qualified employees”, “Use of Manual Inventory Management System in some departments”, “Scattered storage facilities and poor transportation mechanism(resulting into spoilage of materials)”, “Theft and attacks from rats which reduces the amount of inventory available for sale”, and “Reduced demand from some customers especially during the covid 19 outbreak” with their respective percentage responses.

The major gaps that were identified as the major threats/occasional problems by all respondents were limited space (for storage and production activities), delayed orders from suppliers leading to insufficient inventories, poor quality products from suppliers (due to absence of a laboratory within the company), bureaucratic process in procurement and Purchase of raw materials with early expiration date, implying that the company really face these problems when using Inventory Management Practices.

3.5. Mitigation measures necessary for improvement of inventory management Practices at M. Products

The study sought to determine the mitigation measures for improvement of inventory management practices, and following the gaps identified in the inventory Management Practices at M. Products Bakery and Confectionary Limited. Table 6 presents the mitigation measures that have to be done so as to close the gaps within the inventory management practices of the company.

Table 6 Mitigation measures and action plan to improve inventory management practices at M. Products

Gap	Mitigation measure	Description	Person responsible
Delayed orders from suppliers leading to insufficient inventories	Making improvements with suppliers	The purchasing manager should select and keep close relationship with only reliable and quality suppliers in order to reduce product cost, maintain good product quality and customer service. He should ensure the relationship by ensuring early placement of orders, being honest and also pay them in time.	Purchasing manager
Limited space (for both storage and production activities) so the company can't have enough safety stock to cater for changes in demand	Expansion of the facility and adoption of advanced ware house techniques	This investment is urgently needed by the company. The company has to expand its production facility, or it can establish facilities in other areas, this could help in curbing the problem of occupational accidents during production.	General manager
Purchase of raw materials with early expiration date	Use of Just in time philosophy	The purchasing manager should ensure that perishable item in production are made immediately as needed for the next step in the production process, or each item is being purchased is delivered just in time hence reducing inventory levels virtually to zero	Purchasing manager
Weak management system	Clear definition of authorities and responsibilities	The human resource and general managers should establish a clear organizational structure that identifies the authorities and responsibilities of members and their reporting tendencies.	Human resource manager
Poor quality products from suppliers (and the company has no laboratory to test for the quality of such products, they only base on random assumptions	Establishment of a laboratory	The Quality assurance officer should emphasize the establishment of a lab or he can even outsource this service to other capable companies in order to avoid the purchase of raw materials of poor quality	Quality Assurance Officer
Increased damages due to poor handling during production	Effective material handling system	The inventory and stores departments should buy storage equipment like storage racks, using forklifts to use vertical space and also make suggestions to the general manager about the expansion of the facility.	Production Manager, Inventory Manager

Reduced demand from some customers especially during the Covid 19 outbreak like schools	Sales Promotion	The sales team should conduct more advertisements and continue to market the products of the company in order to increase on the number of customers. Make suggestions for the increase on the number of outlets. Also the sales manager has to make suggestions for the increase on the number of outlet shops in different areas of the country.	Sales Manager
Lack of training of the employees and unqualified employees (since the company only has one Bakery professional)	Enhanced training	The human resource manager has to ensure valuable training to its employees in order to allow the company to make better use of available resources.	Human resource manager
Use of Manual Inventory Management System in some departments	Change manual to computerized inventory recording systems	The responsible managers should ensure that all departments use computerized systems to record all the relevant data to ensure accuracy and validity of information	General manager
Bureaucratic process in procurement	Adoption of a decentralized system	All purchasing decisions should be made by department heads in order to react quickly to seemingly volatile economic situations.	General manager
Overstocking/under stocking	Use of a recognized inventory model	The managers should incorporate efficient and effective inventory model since the demand of some materials is not certain, this will help the company to make accurate predictions	Inventory manager

The mitigation measures suggested for in the study to address the identified gaps include making improvements with suppliers, expansion of the facility and adoption of advanced ware house techniques, use of Just in time philosophy, clear definition of authorities and responsibilities, establishment of a laboratory, effective material handling system, sales promotion, enhanced training, change manual to computerized inventory recording systems, Adoption of a decentralized system and use of a recognized inventory model. Some of the measures are supported for like [28]

4. Conclusion

Effective Inventory Management is upheld to be a potential driver for enhancing the company's operations and profitability as revealed from the study. Minimizing the total Inventory costs through identifying an optimum level of Inventory that an organization hold is the way forward. A well-functioning Inventory Management System brings both economic benefit in terms of profitability and good image to the company by delivering quality products. This study sought to investigate the Inventory Management Practices at M. Products Bakery and Confectionary Limited. It is concluded from the study that M. Products Bakery and Confectionary Limited has been practicing Inventory Management, However the effectiveness and how the practices were adhered to by the Management and Staff were faced with some problems. Therefore, effective measures should be put in place to mitigate such problems to ensure effectiveness in its Inventory Management.

Compliance with ethical standards

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Disclosure of Conflicts of interest

All authors declared that there was no conflict of interest

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