

Optimizing raw material inventory for production goals at About Something Coffee Palangka Raya

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Abstract

This research aims to find out whether controlling raw material supplies using the Economic Order Quantity (EOQ) method is more optimal than the conventional method applied by the About Something Coffee coffee shop. Here the researcher calculates and compares the number of raw material orders, the amount of safety stock, the reorder point, and the total cost of inventory. Data collection techniques in this research are interviews and observation. Problems faced by companies in relation to raw material inventory include optimal purchasing of raw materials, safety inventory, and total raw material inventory costs. To answer existing problems, the author uses the EOQ (Economical Order Quantity) method. Based on the research results, it shows that the economical amount of raw materials for each purchase in 2023 is 3,464 kilograms. With this figure, it is found that the ideal time to order raw materials is 7 times a year with a lead time of 52 days. The amount of safety stock needed in 2023 is 346 kilograms. From the results above, the raw material inventory according to the EOQ method and the total cost of raw material inventory according to the EOQ method are efficient. So companies can consider using the EOQ method in managing their raw material inventory.

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1. INTRODUCTION

Organizations are predominantly driven by the pursuit of profit. In certain enterprises that manufacture tangible products, the operational or production methodologies involve the transformation of raw materials into either finished or semi-finished goods, distinct from service-oriented firms that inherently offer services to achieve profitability (Chen, 2023). Consequently, in these manufacturing entities, the oversight of raw materials exerts a significant impact on the efficient execution of the production process. To enhance production efficacy, raw materials represent a fundamental and pivotal component within the operational framework (Dahmani et al., 2021). Through the activities entailed in the production process that convert raw materials into market-ready finished or semi-finished products, the organization can yield items primed for consumer sale (Ogah et al., 2022). When this process is perpetuated, the company can sustain its profit-driven orientation.

Therefore, to guarantee the seamless operation of the production process, it is imperative for an organization to manage raw materials with meticulous control (Hamzah & Ismail, 2020). Generally speaking, the method of sourcing raw material supplies varies across different enterprises, both concerning the quantity of raw materials procured and the management of these resources. The raw materials utilized in the production process will be either acquired or sourced periodically based on the pre-established purchasing intervals for each raw material (for instance: weekly, monthly, or annually). Raw material inventory constitutes a vital asset for the organization, playing a crucial role in operational success, thus underscoring the necessity of effective inventory management (Ali et al., 2024). This is due to various

contingencies associated with challenges in raw material inventory management. Conversely, while the organization aims to maintain an adequate raw material inventory to promptly support all production activities, such a strategy may prove ineffective and inefficient due to escalating storage costs, potential spoilage, and the risk of price depreciation at any moment (Ningombam & Telu, 2023). Conversely, the organization may strive to minimize expenditures by lowering the volume of raw materials held in stock; however, this could jeopardize the production process if shortages or depletion of raw material inventory occur frequently (Ogah et al., 2022). A deficiency or exhaustion of raw materials not only halts production but also precipitates a sudden increase in procurement costs. Furthermore, should the raw materials necessary for production fail to arrive as scheduled, the organization may be compelled to urgently procure raw materials, incurring additional risks and costs associated with inventory acquisition, ultimately leading to a decline in the organization's profitability (Hamzah & Ismail, 2020).

Currently, Indonesia stands as both a significant producer and an essential consumer of coffee commodities. In terms of production, Indonesia occupies the fourth position globally, following Brazil, Vietnam, and Colombia, while its rank as a consumer is noteworthy. For the general Indonesian populace, the act of consuming coffee has become an integral aspect of daily life, particularly among older generations, and has increasingly involved younger children and adolescents (Afif & Fithriya, 2024). Data from 2015 indicated that the proliferation of coffee drinkers in Indonesia was markedly rapid, outpacing global trends, with an 8% increase in Indonesian coffee consumers compared to a mere 6% globally. The Association of Exporters and the Indonesian Coffee Industry (AEKI) reported that national coffee consumption per capita surged from 0.8 kilograms to 3 kilograms (Afif & Fithriya, 2024).

The swift advancements in the current millennial epoch have catalyzed the emergence of various trends among youth, including socializing at coffee establishments. This phenomenon implies that business entities must adeptly seize this opportunity to capture market share in contemporary times. Historically, coffee consumption has been deeply ingrained in Indonesian culture and customs. However, with the evolution of societal norms, the act of enjoying coffee in specialized cafes has inadvertently transformed into a lifestyle, leading to a proliferation of coffee shops and intensifying competition among café proprietors, particularly in the urban locale of Palangka Raya (Afif & Fithriya, 2024).

About Something Coffee, established in April 2018, serves as a coffee shop targeting a broad demographic. The rationale behind the inception of About Something Coffee is encapsulated in its motto, which asserts that quality coffee should be accessible to all. Researchers selected this establishment for analysis based on its substantial customer base, evidenced by an impressive 13,000 followers on Instagram, surpassing the average of competing coffee outlets. Furthermore, preliminary field observations conducted by researchers indicated that About Something Coffee recorded the highest volume of sales through online platforms such as Grab Food and Go-Food in 2018. Initially located in a two-story shophouse on Jalan Sisingamangaraja Palangka Raya, About Something Coffee has since relocated to Jalan Cuk Nyak Dien Palangka Raya due to parking constraints and other logistical challenges (Afif & Fithriya, 2024).

The accomplishments of About Something Coffee are intrinsically linked to its effective and efficient management strategies. The primary ingredient in coffee production is, of course, coffee beans. Consequently, the oversight of raw materials at About Something Coffee necessitates a strategic restructuring to optimize the quality of finished products available to consumers. Given its substantial market presence, About Something Coffee undoubtedly maintains defined production objectives. The responsibility of managing raw material inventories is critical, aiming to prevent shortages or surpluses while simultaneously minimizing associated costs. Thus, meticulous control of raw material stocks is imperative to ensure adequate availability in both quantity and timing, thereby safeguarding the continuity of the production process and maintaining minimal inventory costs (Hamzah & Ismail, 2020; Ogah et al., 2022).

2. LITERATURE REVIEW

Inventory Control

Control can be understood as a systematic and strategic process that manifests in the form of a comprehensive plan and method employed by a corporation to ensure the safeguarding of its assets while simultaneously generating precise and trustworthy information essential for the efficient operation of the

organization (Hamzah & Ismail, 2020). The management of raw materials within a corporation is inherently aimed at facilitating and enhancing the operational activities of that specific enterprise, thereby contributing positively to its overall efficiency and effectiveness (Rahman et al., 2019). Furthermore, the cohesive integration of all activities undertaken within the organization substantially bolsters the establishment of robust raw material control measures, which are crucial for maintaining operational fluidity (Chaouch, 2023).

Inventory, representing one of the most significant and costly assets a corporation possesses, is a critical component of its financial structure. On one hand, the management team desires to minimize the costs associated with inventory to enhance profitability and operational efficiency; however, on the other hand, it is imperative that management ensures the continuous availability of inventory to prevent stockouts, which could potentially disrupt ongoing production processes and ultimately lead to financial losses (Karabağ & Tan, 2019). The function of inventory control emerges as an exceedingly vital managerial responsibility because inventory, or stock of goods, incurs substantial financial investments, thus necessitating careful oversight and management to safeguard the company's financial interests (Molefe, 2017).

To this end, inventory must be managed with a high degree of effectiveness and efficiency to ensure that the company remains viable and competitive in its market. Inventory control can be defined as a managerial function that meticulously regulates and directs the implementation of strategic plans, which may be articulated through various procedural formats such as manuals, standards, criteria, or procedural guidelines essential for facilitating the optimized execution of programs by the relevant organizational elements and units. The inventory control system in a corporation can be conceptualized as a comprehensive set of control policies designed to ascertain the appropriate levels of inventory that should be maintained, the timing for placing orders to replenish inventory, as well as the specific quantities that should be ordered (Hamzah & Ismail, 2020).

This systematic approach guarantees and assures the availability of the correct inventory items in the precise quantities required at the appropriate times to support uninterrupted production. Moreover, the implementation of effective inventory control strategies within the company is fundamentally aimed at facilitating and enhancing the overarching activities of the enterprise (Rahman et al., 2019). The seamless integration of all operational activities within the organization plays a pivotal role in fostering the development of effective raw material control practices essential for sustaining competitiveness (Chaouch, 2023). In light of these considerations, it becomes abundantly clear that inventory control constitutes an indispensable managerial function within the company, particularly given that physical inventory represents a significant investment. The successful execution of this function is intricately linked to all departments and units, with the primary objective being the maximization of product sales efforts while simultaneously optimizing the utilization of resources in a manner that promotes overall organizational efficiency and effectiveness (Molefe, 2017).

Raw Materials

Raw materials play a pivotal role as essential components in the intricate operations of a manufacturing company, as they represent the initial phase in the comprehensive and multifaceted production process that transforms these materials into finished goods (Nnadi et al., 2018). Manufacturing enterprises, particularly those engaged in the production of tangible goods, have a critical reliance on these raw materials, which must undergo various stages of processing to effectively contribute to the overall production workflow (Giri et al., 2017). The absence of sufficient supplies of these raw materials can lead to significant disruptions in the production process, thereby hindering the efficiency and effectiveness of the manufacturing operations and potentially resulting in delays and financial losses (Bartoo et al., 2023).

Within the industrial sector, the expenses associated with raw materials constitute a substantial portion of the overall production costs incurred by companies engaged in manufacturing activities (Sheldon et al., 2022). However, in certain specific industries, the financial burden of acquiring raw materials may not necessitate significant sacrifices or expenditures, particularly in cases where the raw materials are readily available and do not require substantial investment, such as in industries that rely on naturally occurring resources like water and free air. Conversely, in industries or companies that necessitate considerable financial investments or sacrifices to procure these essential raw materials, the challenges associated with the procurement, management, and utilization of these resources become a critical aspect

of their production activities, influencing their operational strategies and overall competitiveness in the market (Odeyinka et al., 2022).

Production

Raw materials are fundamental components in the operations of manufacturing companies, serving as the initial phase in the production process that transforms these materials into finished goods (Hegab et al., 2023). Manufacturing enterprises, especially those producing tangible products, heavily rely on raw materials that must undergo various processing stages to effectively contribute to the overall production workflow (Damayanti et al., 2022). The absence of adequate raw material supplies can lead to significant disruptions in the production process, hindering the efficiency and effectiveness of manufacturing operations and potentially resulting in delays and financial losses (Magableh, 2021).

In the industrial sector, expenses associated with raw materials constitute a substantial portion of the overall production costs incurred by manufacturing companies (Akter et al., 2022). However, in certain industries, the financial burden of acquiring raw materials may not require significant expenditures, particularly when the materials are readily available and do not demand substantial investment (Islam et al., 2024). Conversely, industries that necessitate considerable financial investments to procure essential raw materials face critical challenges in procurement, management, and utilization, influencing their operational strategies and market competitiveness (Khedr, 2024).

3. METHOD

This particular research endeavor is characterized as a qualitative study, which is fundamentally aimed at meticulously describing and thoroughly analyzing a specific phenomenon, including the attitudes exhibited by individuals, the social activities they engage in, and the perceptions and perspectives they hold, both on an individual basis and collectively within groups. The chosen location for this research is the esteemed establishment known as About Something Coffee Palangka Raya, which is widely recognized as a prominent coffee shop situated in the vibrant Palangka Raya City, renowned for its extensive customer base and remarkable turnover rates. This notable attribute of having a high volume of patrons serves as one of the primary motivations behind the researchers' decision to select About Something Coffee Palangka Raya as the focal point of this academic inquiry. Furthermore, the coffee that is served at this particular venue enjoys considerable popularity among aficionados of this beverage, largely due to its exceptional and delightful flavor profile that captivates the taste buds of many.

In the context of this qualitative research, data was meticulously collected utilizing a diverse array of methodologies, including in-depth interviews, careful observations, and comprehensive document analysis. The strategic implementation of multiple data collection techniques, commonly referred to as triangulation, is a deliberate choice made by the researchers, as it acknowledges the inherent limitations of any single method and seeks to provide a more holistic and nuanced understanding of the data gathered. Additionally, the study incorporates a variety of data analysis techniques, which involve systematically organizing raw materials in accordance with the principles of Economic Order Quantity (EOQ), rigorously analyzing the frequency of raw material acquisitions, and calculating essential components such as safety stock, lead time, and reorder points (Almadany, 2022). Moreover, the research encompasses an evaluation of the total cost associated with raw material inventory, often referred to as Total Inventory Cost, in order to gain insights into the overall dynamics of inventory management and its consequential impact on the operational efficiency of the coffee shop.

4. RESULT AND DISCUSSION

Role of Inventory Control

Inventory control constitutes a pivotal function that meticulously regulates and strategically directs the execution of a comprehensive plan, which can be systematically organized through a variety of procedures, including but not limited to detailed manuals, established standards, specific criteria, or targeted actions, all aimed at enabling the optimization and effective realization of a program through the coordinated efforts of related elements and operational units. More specifically, an inventory control system can be comprehensively defined as a structured series of control policies that are meticulously designed to ascertain the optimal level of inventory that must be maintained within an organization, to make informed decisions regarding the timing of orders to replenish inventory levels, and to determine the precise quantity

of stock that ought to be ordered at any given time. Such a robust system is essential because it guarantees that the appropriate inventory is available in the correct quantity and at the precise moment it is required, thereby facilitating seamless operations.

Inventory control is instrumental in fulfilling several critical purposes that are essential for the smooth functioning of any business. One of the primary objectives of inventory control is to avert the risk of the company depleting its inventory, a situation that could precipitate significant disruptions in the production process and ultimately lead to a decline in operational efficiency. As emphasized by Mr. Anugrah Andriyano during a discussion on June 24, 2024, at precisely 15:13 WIB, he stated, "In estimating the purchase of raw materials, it is always right and never lacking. Management always prepares a sales plan so that the purchase of raw materials is neither excessive nor lacking. The purchase of raw materials is also at the same time sufficient for all About Something Coffee outlets themselves." This insightful observation clearly illustrates that the management team at About Something Coffee meticulously estimates the purchase of raw materials with great care and precision to prevent any potential disruptions in the production process that could hinder their operations.

Furthermore, another salient goal of inventory control is to sustain inventory levels that are neither excessive nor deficient, thereby effectively preventing the associated costs from inflating to unmanageable levels. As articulated by Mr. Anugrah Andriyano on June 24, 2024, at 15:16 WIB, "The raw materials for coffee shops are very diverse, especially since our coffee shops have many kinds of menus, not only selling coffee. Therefore, we always prepare supplies according to consumer demand. Especially for our main raw material, namely coffee beans, we as management always order more than the sales target we want to achieve. However, that is not without reason, because we want to have sufficient stock rather than being short. Just as a safety stock." This strategic approach adopted by About Something Coffee serves to ensure that the organization maintains an adequate inventory level without incurring the additional costs that could arise from overstocking or understocking.

Lastly, inventory control also aims to circumvent the pitfalls associated with frequent small purchases, which often result in increased ordering costs that can erode profit margins. Mr. Anugrah Andriyano further elaborated on this matter on June 24, 2024, at 15:20 WIB, stating, "Our raw material shipments are once every three months using container trucks sent by sea. Incidentally, we are also resellers of coffee beans from the coffee bean producers that we order. We order directly from Java. Therefore, we never order raw materials in small quantities, because it will clearly increase shipping costs." In this context, it is evident that About Something Coffee strategically opts to procure raw materials in larger quantities as a means of avoiding the additional costs that would inevitably arise from frequent small orders. This particular strategy is especially critical given the extended lead times associated with the shipping of raw materials, thereby ensuring that the business maintains a consistent and steady supply of stock without incurring unnecessary increases in production costs, thus optimizing overall operational efficiency.

Factors Affecting Inventory

Raw materials are crucial in a manufacturing company, as they represent the first step in the production process. Manufacturing companies, in particular, rely on raw materials, which are processed to create the final products. Without sufficient raw material supplies, the production process can be disrupted. Several factors must be considered when managing raw materials. One of these is raw material estimates, which involve estimating the amount of raw materials required for the production process in the upcoming period. About Something Coffee's management ensures that raw material purchases are accurately estimated to guarantee smooth production processes and that production targets are met as planned.

Another important factor is raw material prices. The price of raw materials is fundamental when preparing calculations for the investment needed to purchase these materials. About Something Coffee has established relationships with regular producers to ensure a reliable supply of coffee beans, which are harvested annually. Maintaining good relations with producers is crucial, especially since the company also acts as a reseller. Funds are always prepared to meet the supply of raw materials. When the price of coffee beans is expected to increase, the management tends to purchase additional stock before the price hike, thus managing costs effectively. For purchasing coffee beans, payment is made in cash, while other ingredients such as syrups are typically acquired using payment terms or a term of payment (TOP) arrangement. This strategy helps About Something Coffee maintain a steady supply of materials and manage costs while preparing for price fluctuations. Inventory costs represent a crucial aspect of the operational framework for

the company, as they serve as a fundamental basis for the procurement of essential raw materials required for production. The various costs associated with this procurement process encompass not only the financial resources necessary for the actual acquisition of raw materials but also additional expenses such as shipping costs incurred during the transportation of these materials and the overhead costs related to the storage of these goods. All of these financial outlays are meticulously calculated and aggregated into the broader category of production costs, which also encompasses the maintenance expenses associated with coffee machines and other pertinent operational costs. In this context, the management team at About Something Coffee diligently ensures that all expenses related to the procurement of raw materials—including but not limited to purchasing, shipping, and storage—are thoroughly evaluated and incorporated into the comprehensive production costs incurred at its various coffee outlets.

Moreover, the purchasing policy established by the company emerges as a pivotal element, as it fundamentally influences the extent to which the organization will invest in raw material inventory. The requirement for approximately 2 to 3 tons of coffee beans on a monthly basis signifies that, in the event that deliveries occur only once every three months, it becomes imperative for the company to prepare and allocate sufficient financial resources to cover the raw material demands for the ensuing three-month period. This scenario underscores the commitment of the management team at About Something Coffee to proactively prepare adequate funds in anticipation of future raw material requirements, thereby facilitating a seamless purchasing process that is devoid of any disruptions or delays.

In addition, it is equally important to take into account the actual utilization of raw materials from the preceding period, as this factor plays a significant role in the overall inventory management. The sales figures for coffee have demonstrated a consistent level of stability across all outlets on a month-to-month basis, which, in turn, has led to a corresponding stability in the utilization of raw materials. The volume of raw material orders has remained relatively constant, with deviations occurring primarily in response to anticipated increases in the price of coffee beans, which may necessitate the acquisition of additional stock in preparation for such fluctuations. Consequently, the management team at About Something Coffee remains vigilant in monitoring the stability of raw material consumption, continuously adjusting the ordering process in accordance with observed consumption patterns from previous periods, particularly in anticipation of potential price changes in the market.

Furthermore, lead time constitutes another critical variable in the inventory management equation, as it dictates the optimal timeframe within which the company must procure raw materials to effectively avert issues related to stockouts or the accumulation of excess inventory. The designated delivery lead time for coffee beans has been established at three months, and orders are systematically prepared in alignment with the existing raw material needs of the business. Prior to each delivery, the warehouse plays a pivotal role by informing management about the remaining inventory levels of raw materials, which in turn guides the decision-making process concerning order placement based on the projected requirements until the next scheduled order period. This methodical approach guarantees that the management team at About Something Coffee consistently estimates and places orders for raw materials predicated on the current stock levels and anticipated needs, thereby minimizing the likelihood of both overstocking and experiencing shortages of essential materials crucial to the company's operational integrity.

Production Objectives

Production targets are essential for industrial companies, as they focus on producing finished products and ensuring continuous or sustainable production processes. In the case of About Something Coffee, the management has always succeeded in achieving its production targets without running out of raw materials. The company sets a target of producing 10,000 cups of coffee per month at each outlet, and this target has consistently been met. The management ensures that raw materials are sufficiently stocked to maintain a smooth production process, supporting the achievement of these goals.

Profit generation is a key objective for any business, and About Something Coffee is no exception. The company remains focused on profit, but it also values the importance of internal factors, such as employee satisfaction and development. The management is committed to supporting its employees by providing training opportunities to help them become future leaders. The focus on profit does not come at the expense of the company's internal well-being, as the company recognizes that smooth operations and motivated employees are crucial for achieving production targets.

The survival of the company is another critical objective, and About Something Coffee's management is dedicated to ensuring the company remains stable by meeting its monthly production targets. Achieving these targets allows the company to maintain its financial health, support its employees, and continue operating in Palangka Raya City. This commitment to meeting production goals ensures the company's long-term success.

Furthermore, About Something Coffee is dedicated to improving both the quality and quantity of its production. The company continuously strives to satisfy consumer desires by innovating and offering new menu items. Over the years, new products such as red milk coffee and gomu noodles have been introduced, keeping the menu fresh and appealing. The management understands that consumers are always looking for new and unique offerings, and innovation is seen as a crucial part of maintaining customer loyalty. Therefore, About Something Coffee believes that ongoing innovation is vital in the competitive coffee shop industry.

From the comprehensive analysis derived from the outcomes of the preceding research interview, it can be inferred that the execution of the raw material inventory control mechanisms is currently operating within acceptable parameters, which can be observed through a multitude of influential factors; the foremost of which is the efficacy with which inventory control measures have been implemented, revealing a high level of proficiency in the management capabilities of the company, thereby ensuring that it never encounters scenarios characterized by a deficiency of goods or, in more severe circumstances, an outright stockout. Furthermore, the management of raw material inventory is conducted in such a manner that it does not become excessively abundant, which serves to mitigate any potential escalation in associated costs incurred by the company. Additionally, the process of ordering raw materials is executed with a level of diligence that prevents the company from incurring financial losses that could arise from mismanaged ordering costs, thereby contributing to overall operational efficiency.

In the context of the utilization of raw materials, About Something Coffee demonstrates a commendable ability to forecast and estimate requirements accurately, as evidenced by their practice of placing orders for raw materials that consistently align with their actual operational needs; however, it is noteworthy that in anticipation of a forthcoming increase in the price of coffee beans, About Something Coffee has adopted a strategy of ordering quantities that exceed their usual requirements. This approach, while potentially beneficial in the short term, could engender complications should raw materials accumulate disproportionately, which in turn may compromise quality due to the delay in production processes.

Additionally, the policy framework established by About Something Coffee regarding the procurement of raw materials is characterized by a commendably prudent approach, wherein management ensures that the allocation of funds corresponds accurately to the quantities of raw materials that are to be ordered. The calculation of raw material orders is meticulously based upon the actual consumption patterns observed in prior periods, thereby guaranteeing that the inventory of raw materials maintained by About Something Coffee remains consistently adequate, thereby supporting seamless operational continuity.

The established inventory control patterns that are employed by About Something Coffee have been in effect for an extended duration, embodying a systematic control framework that spans from the upper echelons of management down to the operational aspects within the warehouse. Management plays a critical role in perpetually verifying that the supply of raw materials remains sufficiently robust to facilitate the production processes that are scheduled for execution. Thus far, About Something Coffee has reported an absence of significant disruptions that could impede the production activities currently underway. Given the considerable presence of numerous coffee shops operating within Palangka Raya City, the competitive landscape for proprietors of coffee establishments is undeniably intensified, which necessitates that About Something Coffee engage in innovative practices to maintain its market position. Consequently, the innovations that have been implemented by About Something Coffee appear to be highly effective, as they serve to ensure the retention of consumer interest and loyalty, thereby facilitating the company's sustained viability in the marketplace, supported by a stable demand from consumers.

After conducting a thorough analysis of the results obtained from the interviews that focused on the critical aspect of raw material control, the author will subsequently endeavor to perform an accurate and comprehensive data analysis of inventory control specifically pertaining to raw material inventory levels. This meticulous analysis is anticipated to serve as a crucial benchmark for the management team at

About Something Coffee, providing them with valuable insights and strategies for effectively managing and controlling raw material inventory in future operations. In order to address the initial issue at hand, which involves the determination of the optimal quantity of economical raw material purchases for each transaction, the author will utilize the EOQ (Economic Order Quantity) formula as a foundational tool. For the seamless and uninterrupted operation of the production process, it is imperative that the company accurately assesses its raw material requirements; once these needs are established, the organization must then calculate the precise number of purchases required. By employing the EOQ (Economic Order Quantity) methodology, the company is afforded the opportunity to ascertain the most financially viable purchasing strategy, thereby optimizing its procurement process. Concurrently, it is of paramount importance that About Something Coffee remains vigilant and attentive to the concept of safety stock; this refers to a designated unit of inventory that must consistently be maintained within the company to effectively mitigate the risks associated with fluctuations in consumer demand. In the absence of safety stock, the minimum inventory threshold that must be held in the warehouse is quantified at 792 kg, which becomes particularly critical when the company is approaching the Reorder Point (ROP). Conversely, in instances where the company has successfully established safety stock levels within the warehouse, the minimum inventory threshold at which the company should initiate a Reorder Point (ROP) is elevated to 1,138 kg, thereby highlighting the significant impact of safety stock on inventory management practices.

5. CONCLUSION

Based on the extensive and meticulously gathered data that has been not only successfully collected but also thoroughly described and analyzed in detail, it can be concluded that the following insights can be derived, which simultaneously serve as the responses to the specific research inquiries that were initially posed: Among the six critical factors that significantly influence inventory management, it has been determined that only four of these factors have been effectively implemented and executed by the establishment known as About Something Coffee. This observation indicates that About Something Coffee has managed to conduct its inventory control processes with a commendable degree of proficiency. However, when it comes to the pricing factor, it has become evident that About Something Coffee has not adequately addressed this aspect of their operations. This shortfall can be attributed to the practice of excessively ordering raw materials in anticipation of an impending increase in the cost of coffee beans. Furthermore, the factor concerning actual usage of raw materials will inevitably be impacted as well since About Something Coffee does not align their order placements with the genuine consumption levels of these essential raw materials; rather, they exhibit a tendency to hoard these materials, which consequently leads to an accumulation of excessive inventory levels. In terms of the four primary production objectives aimed at meeting the established targets and benchmarks, it has been shown that About Something Coffee has performed admirably in this regard. The company consistently fulfills the demands of its consumer base, all while maintaining a vigilant focus on the profitability of the organization and introducing innovative offerings that cater to the preferences and desires of its clientele. According to the calculations pertaining to the Economical Order Quantity (EOQ), the optimal quantity of raw materials deemed economical for each procurement cycle in the year 2023 has been determined to be 3,464.1 kilograms, which necessitates conducting seven orders over the course of the year, accompanied by a lead time of 52 days. With this critical data in hand, it is imperative that About Something Coffee also allocates a safety stock of 346 kilograms, designed to effectively mitigate any potential fluctuations in consumer demand that may arise unexpectedly.

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