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ANALYSIS OF WAREHOUSE ACTIVITIES THROUGH SYSTEM APPLICATION PRODUCT (SAP) TO MONITOR TARGET PERCENTAGE OF ORDER FULFILLMENT FINISHED GOOD WAREHOUSE OF PT XYZ

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Abstract

The global recession that occurred in America had an impact on the decline in the value of exports of Indonesian textiles and textile products. PT. XYZ is a multinational company that has been affected by the global recession due to a decrease in product demand in the international market. The research aims to determine the inhibiting factors of not achieving the OFF performance target, information regarding the implementation of SAP warehousing, SAP has a very crucial role in supporting the smooth running of the company's activities as a whole including warehouse activities from upstream to downstream, the process receiving until complete shipment process product to customer. Knowing the process flow of warehouse operation of activities finished goods and the role of SAP for OFF monitoring as Key Performance Indicator Finished Goods Warehouse department PT. XYZ. The author uses a descriptive approach by qualitative methods. Research shows that there is one factor in Order Fulfillment's non-achievement caused by reduction in the number of order customer requirements on goods produced by PT. XYZ. The research results obtained several internal and external factors such as sewing damage, missing order quantity, missing scanning output, material shortage and other factors affecting the failure to achieve OFF as a work KPI indicator which in its implementation is influenced by inhibiting processes so that OFF does not reach its target. OFF is a measure of the company's ability to fulfill the number of order requests exactly according to the requests and requirements put forward by each customer.

Keywords

System Application and Product In Data Processing (SAP); Warehouse Operation; Order Fulfillment

INTRODUCTION

There are fluctuations in the performance of the textile industry recorded from 2012-2022. In accordance with the data published by BPS, it can be seen that in 2022, the performance growth of the textile and finished goods industry became the second highest growth in the last decade in the processing industry subsector which contributed 5.81% of GDP value in 2022. However, in 2023 a new problem arose which caused a decrease in the value of TPT (Textile and Textile Products) exports that occurred in the United States which threatened the existence of the Indonesian TPT exporting industry, the Indonesian Ministry of Industry took steps to design the right strategy to overcome this. The global recession has become the main focus for the manufacturing industry, which is affected by changes in the economic and social aspects.

OFF is an indicator of the work KPI of the finished goods warehouse department of PT XYZ which until now has not been able to minimize the factors that hinder the achievement of the OFF percentage of 101.5%. On several occasions, the author found the problem of decreasing the percentage of OFF performance in certain months. This is made clear by the obstruction of warehouse operational activities, one of which is caused by the non-achievement of the OFF percentage of the targeted percentage. The mismatch of work processes originating from internal and external work departments is motivated by several factors that can be said to be quite risky, because a little mistake will affect various other aspects. Warehouse operational activities through the use of System Application Product In Data Processing which plays an important role as an information system in the form of data from the results of the work process, of course with a high level of accuracy, it makes it easier for users to monitor and track whether there is a mismatch between the data inputted in the system and the actual conditions and facts in the field that often occur, this case is quite fatal for the performance performance and achievement of the Finished Goods warehouse department KPI, one of which is the Order Fulfillment indicator. SAP as a work information system supports company performance to be faster, easier, and more accurate to know, using SAP in business can minimize errors caused by human error so that it can help companies in optimizing performance productivity and make it easier for companies to supervise and control the work of each work field.

LITERATURE REVIEW

Warehousing Activities

Warehousing activities include the role of warehouses according to Arwani (2009), which functions as a storage space for raw materials, semi-finished, and finished goods which aims to optimize the use of space to store products at a certain cost. The next function as a provider of customer demand services (order fulfillment) which begins with the activity of receiving goods from manufacturers or suppliers and fulfilling requests from branches or customers makes the warehouse the focus of logistics operations.

System Application and Product in Data Processing (SAP)

According to James A. Hall (2007) System Application and Product in Data Processing or better known as SAP, which is the largest ERP supplier software that is widely used in the work industry. SAP expands simple ERP solutions which are then developed through internet and electronic business approaches with an orientation towards small, medium to large scale suppliers and customers.

Order Fulfillment (OFF)

Order Fulfillment according to Burns (2018) is a business process that includes all activities starting from the sales stage to the stage of shipping products to customers. According to Zaroni (2018) regarding Order Fulfillment is defined as a series of processes for receiving orders from suppliers that are sent to the customer's destination address.

METHODS

This research uses a research approach with a qualitative descriptive method to obtain data about Warehouse Activity Analysis through System Application Product to Monitor the Achievement of Order Fulfillment at Finished Goods Warehouse PT. XYZ. To find out the factors that hinder the smooth running of warehousing activities in achieving OFF as a work indicator. The data sources used are primary and secondary data with data collection techniques through interviews and observations. The data analysis techniques used are data reduction, data presentation, conclusion drawing with validation through method triangulation techniques.

RESULT AND DISCUSSION

1. Factors inhibiting the achievement of the OFF Percentage Target

The performance condition of the OFF indicator as an important part of the main objective in achieving the success of the KPI of the finished goods warehouse department to achieve the OFF percentage target which cannot be denied that the company's operations continue to develop to the peak point of the shared vision and mission and continue to experience continuous improvement to achieve the expected target percentage of work indicators, there are times when performance productivity has decreased and has an impact on all aspects of the company's business life, one of which is the order fulfillment indicator. The author obtained data on the percentage of OFF performance, which is an indicator that determines the benchmark of success for the entire process and the role of the elements involved for the common interest in realizing the company's vision and mission as executors who contribute to advancing the Textile and Textile Processing (TPT) and Footwear industry which from year to year is still strong in maintaining its existence in the business world.

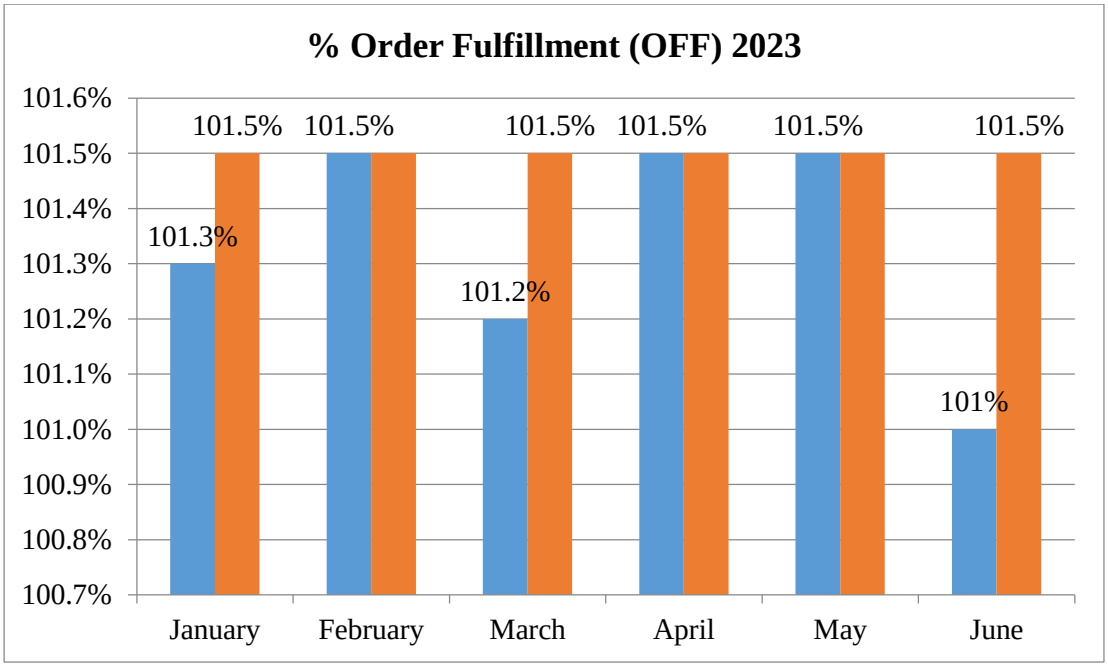

Figure 1. Percentage (%) Performance Diagram OFF 2023

(Primary Data FG KPI Wall PT. XYZ, 2023)

The decline in the percentage of OFF is due to internal and external factors with different backgrounds. Such as the sewing damage problem which is a condition where the quality of the stitches is damaged fatally enough so that the production team has to produce again, sewing damage is caused by damage to the sewing machine so that the machine does not function properly and damages the fabric being sewn. The next factor is missing scanning output which comes from human error that is not careful in the process of scanning the carton barcode resulting in a difference in the physical number of incoming cartons with the number of cartons recorded in the system, and external factors production delay comes from the production department which is constrained technically and non-technically and hampers the warehouse process. Material shortage factors in production and cause work time to be cut because production is forced to stop the process to wait for the availability of raw material stock, the production process of March customer orders is also hampered due to changes in the type of new models so that machines, methods and workers must re-adapt to adjust their abilities and processing time in producing the latest model version of garments according to customer demand, Other external factors come from the QC department which finds many garments that do not pass the feasibility test so that the product is used as a second garment and results in a missing order quantity where the order should have been fulfilled but the number of products available is reduced, and immediately confirms to the production department to immediately fulfill the number of product orders to be sent to customers.

2. Application of SAP to the Finished Goods Warehouse

The application of SAP to the management of finished goods warehousing work is needed to provide an overview of the flow of information from the work units involved, the next use is to assist in the implementation of the process of identifying and evaluating the emergence of problems, obstacles that occur, and the needs that are needed. That way it can attract and bring up proposals for improving the warehouse management system in order to achieve efficiency and effectiveness as targeted. SAP helps warehouse operational activities in monitoring and controlling work performance process by process, not only that, the data results presented in SAP have a high level of accuracy with good flexibility so that data updates can be done regularly anytime and anywhere without being limited in time and place, as long as SAP users have permission to access work modules, access to data information can be obtained quickly and easily. The involvement of the use of SAP in the entire warehouse process starting from the process of receiving, storing, picking to loading shipments that refer to the data presented in system to guide implementation of operational activities from inbound-outbound.

3. Operational Activities of the Finished Goods Warehouse

From the series of finished goods warehouse processes as a whole, several problems were found in the non-achievement of the OFF percentage target as a warehouse work KPI caused by a mismatch of processes that run in accordance with the SOP. The warehouse processes that affect the achievement of the OFF percentage of 101.5% are as follows:

a. Scan output process through ZOUTCONF by Scanner. The scanning process is an initial process that is very risky for the non-achievement of OFF due to missing scanning output, so that the data on the number of goods entered in the system and the actual number of goods entering the PT XYZ finished goods warehouse area is difference in quantity and has an impact on non-achievement of OFF in the current week.
b. Final Quality Control Process by FCA. This process takes quite a long time after the goods are ready to be sent but then they are reopened for quality checking of several samples of goods taken randomly from various types of customer orders. If the FCA team finds a product that does not pass QC, the item will be separated so that it will affect the reduction in the number of orders in one or more cartons that have been filled with the number of items according to their respective customer requirements, this results in a production delay where the production department must immediately reproduce and replace items that do not pass QC with the same amount to meet the number of customer order requests, if the delivery time is close and the number of orders is not fulfilled, it will affect the decrease in the OFF percentage target.

4. The Role of SAP for Monitoring OFF

In supporting the smooth running of warehousing activities in achieving work KPIs, one of which is OFF as the main key that determines the success of the company in its operations to maintain customer loyalty levels. SAP can track data on the system to find out the percentage of OFF targets in the current week, tracking OFF work performance can be done by accessing certain work modules provided to process data and information about OFF. By monitoring and controlling the performance of OFF every week and following up again on the occasion of the monthly review meeting to obtain information on the percentage of OFF per month. a special SAP work module is operated as a reference in monitoring the achievement of OFF. Data on the number of orders to be sent and the number of orders according to customer requests presented in the ZPDPLAN module makes it easy for SAP users to process data to find the results of the percentage of OFF performance reaching how many percent, if the percentage is above the tolerance limit then the order can be transferred to the next process.

CONCLUSION

It is concluded that several internal and external factors such as sewing damage, missing order quantity, missing scanning output, material shortage, production delay, customer wise (new requirement and one of customer wise OFF 100% (under KPI's target) affect the non-achievement of OFF as a work KPI which in its implementation is influenced by processes that hinder OFF from reaching its target. OFF is a measure of the company's ability to fulfill the right number of order requests in accordance with the requests and requirements submitted by each customer. The role of SAP in supporting the smooth running of warehousing activities, one of which is able to facilitate its users to provide access to weekly - monthly monitoring, controlling and tracking OFF work performance.

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