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# Optimization Of Warehouse Operational Systems For Controlling The Return Of Goods At PT Global Fashion Indonesia

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**Abstract**: This study contains an analysis of the optimization of the warehouse operational system for controlling the return of goods. In this research, it was located at the PT Global Fashion Indonesia warehouse with the aim of finding out the optimality of the goods return system at the warehouse. Data collected by interviews and data collection. Apart from that, the research method used is a descriptive qualitative method with the DMAIC approach, namely define, measure, analyze, improve and control so that the level of optimization can be obtained in the PT Global Fashion Indonesia warehouse. This research produces a few recommendations for PT Global Fashion Indonesia's warehouse to streamline the total number of days goods are stored in the warehouse when goods are returned so that the performance of employees who handle the control of goods returns can be made more effective.

**Keywords:** *optimization; operational systems; warehousing; controlling; return of goods*

## 1. Introduction

In the business world, especially in the production or industrial sector, there are many terms such as warehouse or warehousing. Warehousing is something that cannot be separated from the world of goods trading business, especially industrial goods and production. Warehousing activities are not just the activity of putting goods in a storage room (warehouse), in warehousing activities it is important to plan, organize and control logistics both technically and administratively so that these activities can guarantee and maintain the continuity and continuity of every activity in every work unit within a company.

Warehousing is a process or activity related to the storage, management and distribution of goods or products in a storage facility called a warehouse. The main purpose of warehousing is to maintain the availability of goods, organize inventory, and manage the flow of goods efficiently so that it can meet customer demand well. Warehousing activities involve various aspects such as storing goods, packaging, moving, inventory monitoring, quality control, and shipping goods.

warehousing activities must have a good storage system in order to support the smooth production process and warehousing activities. Beside this, a warehouse can be said to be effective and efficient and can be seen in various aspects, one of which is the storage of materials or products. Raw material storage or warehouses in companies are generally divided into several storage areas, such as raw materials, work in process materials.(Makatengkeng et al., 2019)

In terms of optimizing the collection and storage of goods in the warehouse, Layout arrangements are important factors that must be considered in an effort to speed up and ensure accuracy in the collection of goods through to the delivery process. Apart from that, strategic warehouse placement and layout can also help to reduce labor costs. Determining the layout in a warehousing management system is an

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important step in operational management where the layout affects the efficiency of an operation in the long run. (Cv et al., 2018)

The product sales return system is a system that is certainly implemented by the company, where goods that have been purchased by relations can be returned if there is an error from the sorting of goods or the company. The implementation of this sales return system not only aims to replace the mistake of goods received by the relationship, it can also strengthen the business relationship between the relationship with the distributor and the manufacturer.(Maulidiyah, M. R.; Kusuma, 2023)

The process of shipping goods is a series of steps or stages carried out to deliver products or goods from the source, such as a warehouse or manufacturer, to the customer or final destination. This process involves various activities that must be well organized to ensure that the delivery of goods runs efficiently and accurately. In the process of shipping goods, there will be problems such as damage or defects in goods that cause goods to return. (Ayu & Tujni, 2020) Based on these problems, this research will analyze using qualitative methods. PT Global Fashion Indonesia which makes improvements from time to time in all aspects. Improvements to the warehousing system made by PT Global Fashion Indonesia to reduce the occurrence of returns of goods that are in accordance with the requirements of the company.

## 2. Literature review

### Warehousing operational system

A warehouse is a vast, spacious and tenable building anticipated for business and management utilization. It functions as a storeroom place for large amounts of goods (Senior & Analyst, 2020).

Erqorni (2009), a system is a collection of interactions from sub-systems, and management is the science of managing resources while a warehouse is a temporary place for storing goods. In summary, the warehouse management system contains the understanding: management of interrelated activities in temporary goods storage activities. The intended storage activities, namely receiving from suppliers, handling goods, releasing goods to their destination, are the outline of storage activities.

Operational management is a series of activities that produce value in the form of goods and services by converting input into output (Heizer and Rander, 2009:4). Evans and Collier (2007:5), operational management is the science and art of ensuring that goods and services are created and successfully delivered to customers.

Warehousing operational systems or warehouse management systems have been the focus of attention of many experts in logistics, supply chain management, and operations management. A warehousing operational system is a collection of procedures, technologies, and policies designed to manage and optimize the day-to-day operations of a warehouse or distribution center. The main objective of a warehousing operational system is to improve efficiency, accuracy, and cohesiveness in inventory management and distribution of goods. The warehousing operational system includes several essential components such as Receiving, Storage, Material Handling, Inventory Tracking, Picking and Packing, Inventory Control, Quality Management, Warehouse Security, Information Systems, Employee Training, Employee Quality and Productivity, Operational Planning, Warehouse Layout, Logistics Management, and Sustainability or Sustainable practices in warehouse operations, including waste and energy management.

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### Control of goods return

Returns control, also known as returns management or returns process, is an essential part of business operations related to the supply chain and logistics. It involves managing goods that are returned by customers or business partners for various reasons, such as damaged goods, defects, not in accordance with the order, or returns for other reasons. According to Mulyadi (2001), goods are returned because the goods received by the customer are damaged or not in accordance with the order (Ristati et al., 2018).

Returns can be caused by two things: sales returns and purchase returns. A sales return means that the buyer returns the goods, perhaps because they were damaged in transit or because the goods did not meet the buyer's desired specifications. Whereas a purchase return means that the supplier can return the goods if the goods are damaged or do not meet the desired specifications.

Good returns control is an important aspect of maintaining good customer relations, minimizing losses and ensuring the quality and safety of goods in stock. In addition, this process also assists the Company in making continuous improvements and developing better policies regarding returns.

### Optimization

Optimization is the process of increasing or elevating the achievement of expected goals in accordance with predetermined standards. The term optimization comes from the word optimal, which means best or highest.

Optimization is the process of finding the best solution from a range of alternative solutions by maximizing an objective function without violating constraints. This process allows the system to become more efficient by increasing profits, reducing process time (Hidayat & Irvanda, 2022).

According to (Yuwono & Abdullah, 2013) optimization is looking for alternatives with the most effective cost or the highest achieved performance according to given constraints, by maximizing desired factors and minimizing unwanted ones. The purpose of optimization is to achieve the best results or the best conditions in a particular situation or system. The optimization process involves trying to improve the quality, efficiency, productivity, or overall performance of something in the most effective and efficient way.(Afrilia & Jendral Ahmad Yani No, 2021)

## 3. Research Metode

According to Sugiyono, (2016) In qualitative research, data is analyzed before entering the field, during the field, and after completion. In qualitative data analysis, Miles and Huberman do it interactively and continuously until the data is complete.

Lean Management can bring these results: improve operational efficiency, improved processes, improved workflow, improved field service performance, enhanced citizen services, reduced wait time, improved citizen access, improved citizen satisfaction, better resource allocation, enhanced strategic communications, improved knowledge management, enhance reporting, transparency, and planning, Mungovan (2009). (Kadarova & Demecko, 2016)

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The Six Sigma method is a business approach that aims to improve the quality of services or products by reducing variability and errors in the production or service delivery process. This approach is known as the 6 Sigma number, which refers to a very low failure or defect rate target, which is about 3.4 defects per million opportunities. According to (Setiawan, 2020) The Six Sigma method focuses on minimizing possible variability in processes and products through continuous/sustainable improvement and design. (Wahyani et al., 2018) Six Sigma states that there is a strong relationship between product defects and products produced, costs, time, inventory, schedules and others. When the number of defects increases, the number of sigma decreases.(Ulfah & Auliandri, 2019)

This study uses the data analysis method Define, Measure, Analyze, Improve, Control or DMAIC, The purpose of this study is to analyze what factors are the influence or cause of products to become defective products and provide improvements using the Six Sigma DMAIC methodology.(Rashid & Ahmad, 2013)

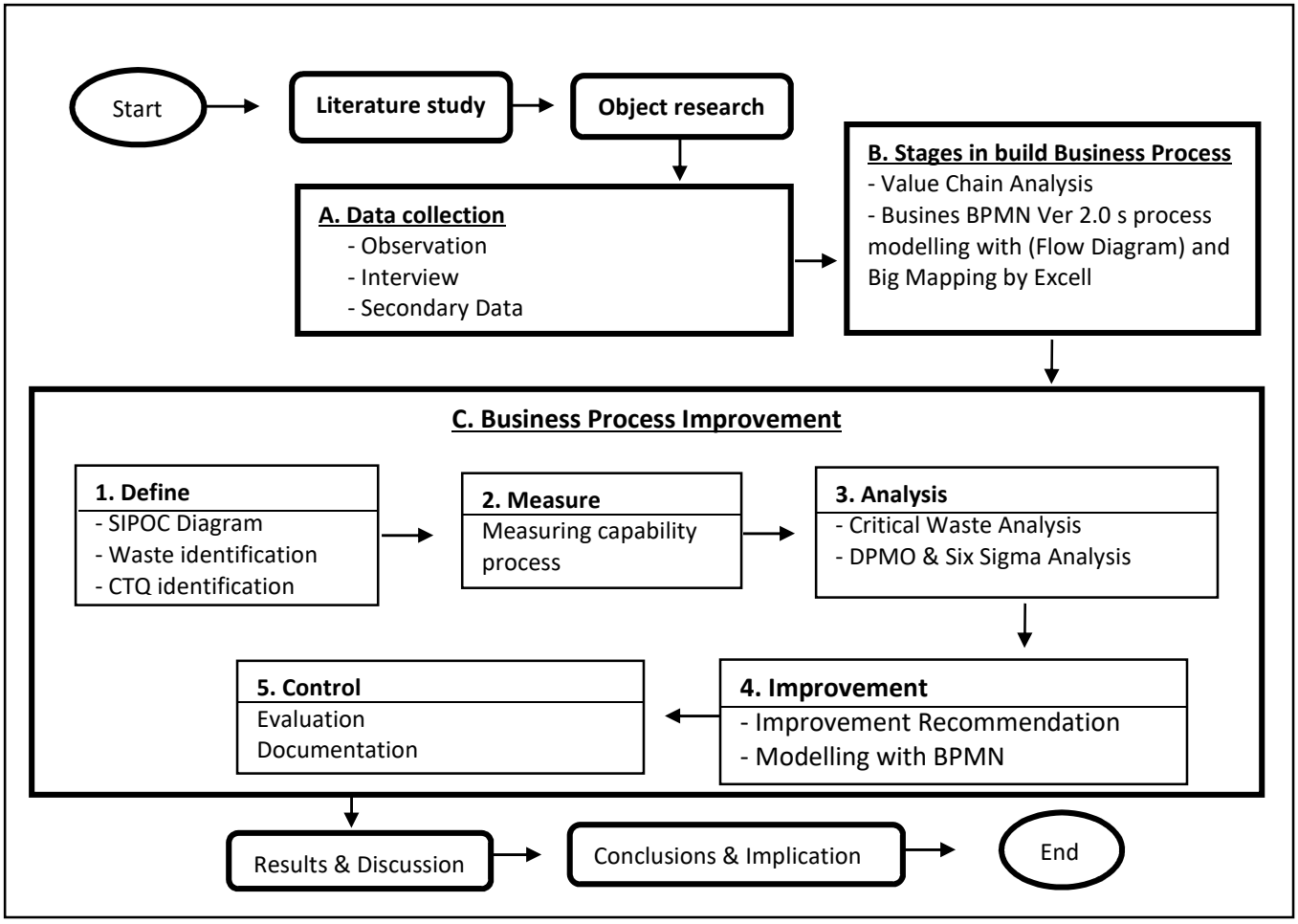


**Fig 1** : Model Research (source by author)

This research uses the Define, Measure, Analyze, Improve, Control, or DMAIC data analysis methodology. The purpose of this research is to identify all elements that contribute or cause the product to be defective and provide improvements using the Six Sigma DMAIC methodology.

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Improving business processes with a lean management approach is known as Business Process improvement. Business process improvement at PT Global Fashion Indonesia implements the lean six sigma framework. In this study using the DMAIC phase which consists of 5 phases including, Define, Measure, Analyze, Improve and Control, while for modeling business process improvements using one of the tools from BPMN, namely bizagi modeler.

Utilizing lean management approaches to improve business processes is known as business process improvement. The lean six sigma method is used to improve the business processes of PT Global Fashion Indonesia. This research uses the DMAIC phase, which consists of five stages: Define, Measure, Analyze, Improve, and Control. In addition, one of the BPMN tools, bizagi modeler, was used to model the business improvement process.

## 4. Result and Discusssion

We got the following interview results from Mr. Charles Hubarat as a warehouse supervisor at PT Global Fashion Indonesia. The supervisor in charge ensures the number of workers involved in each section or department in business activities, and we ask about the effective number that can be deployed, we find out the flow of returning goods from downstream to upstream and the time used in each activity. (Maulidiyah, M. R.; Kusuma, 2023)

### 1.1 Description of interview results

Based on the results of the researcher's interview with the warehouse supervisor at PT. Global Fashion Indonesia and the author appointed as informants in this research obtained information regarding lean management and optimization at PT. Global Fashion Indonesia. The fact is that in every region there is an agent who handles sales, not all goods can be returned from the agent, this can be done with agents who have collaborated with the company and must also be based on the criteria of the sales team. The agent returns the goods to the warehouse for several reasons, which can be seen from the damaged goods. There are also several factors that damage goods, namely due to human error, material handling, long storage time in the warehouse and weather or the environment. The agent returns the goods once every 3 months to the warehouse, there are 3 categories of goods that can be returned, there are A grade, namely goods that do not meet the criteria for returning goods by the sales team, then there is B grade, which is still of good quality but there are slight defects which can later be repaired. back claims to the factory, then there is a C grade where the goods are very defective which will later be destroyed by the vendor who has collaborated.

The implementation of lean in the warehouse is also good even though only 3 have been implemented, it can be seen from its conciseness, neatness and cleanliness, it can be seen from employees who arrive on time, separating unused items such as replacing shelves with block stacking models and holding weekly reviews, monthly reviews for evaluation. employees and heads of the warehouse. A common problem with this warehouse is that the space is not spacious so the operational time can be said to be longer than usual. All activities related to warehouse management at PT. Global Fashion Indonesia is integrated with the company's information system.

From the supervisor informant's explanation, it is known that problems often occur in returning goods at PT. Global Fashion Indonesia includes damaged goods due to human error or the Quality Control team, long storage times in the warehouse resulting in decreased quality and material handling such as

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improper stacking of cartons during delivery. Next, the supervisor informant provided data regarding the delivery and return of goods carried out by agents and the warehousing department at PT. Global Fashion Indonesia which the researcher will explain in the next section. (Makatengkeng et al., 2019)

### 1.2 Data collection

From the secondary data that we collected directly from PT Global Fashion Indonesia in the first semester of 2022, we can see the average defects found in the return data during the delivery process.

Comparison of numbers between returned goods from January to June 2022 at PT Global Fashion Indonesia.

| No | Month | Delivery | Return |
|---|---|---|---|
| 1 | January | 33,784 | 139 |
| 2 | February | 34,145 | - |
| 3 | March | 30,820 | - |
| 4 | April | 19,107 | - |
| 5 | May | 40,420 | 14 |
| 6 | June | 41,128 | 406 |
| | Total | 199,404 | 559 |
| | Average | 33,234 | 93 |

**Fig 2** : Data collection (source by PT Global Fashion Indonesia)

The data collected will be used to analyze and make conclusions. Based on the data, the grand total of deliveries is 199,404 while the total of returns is 559. The average on delivery is 33,234 and the average on return is 93.

### 1.3 Stages of Building Business Processes

A. Value Chain Analysis

According to Shank and Govindarajan (1995:34); Porter (2001:12), Value Chain Analysis is defined as a tool to understand the value chain that forms a product. This value chain comes from various activities carried out, starting from the procurement of raw materials to the hands of consumers. In addition, Value Chain Analysis is a strategic analysis tool used to understand competitive advantage, identify customer value that can be increased or decreased costs, and understand the company's relationship with suppliers, customers, and other companies in the industry (porter, 1998 in Arjakusuma, 2013).

Value Chain Analysis has the aim of analyzing the main business processes and supporting business processes in an organization or company. The main purpose of Value Chain Analysis is to identify ways to increase efficiency, reduce costs, and make a difference in the business value chain. This value chain analysis explains several aspects of the strategy at PT Global Fashion Indonesia, as well as to get an overview of the current needs of PT Global Fashion Indonesia.

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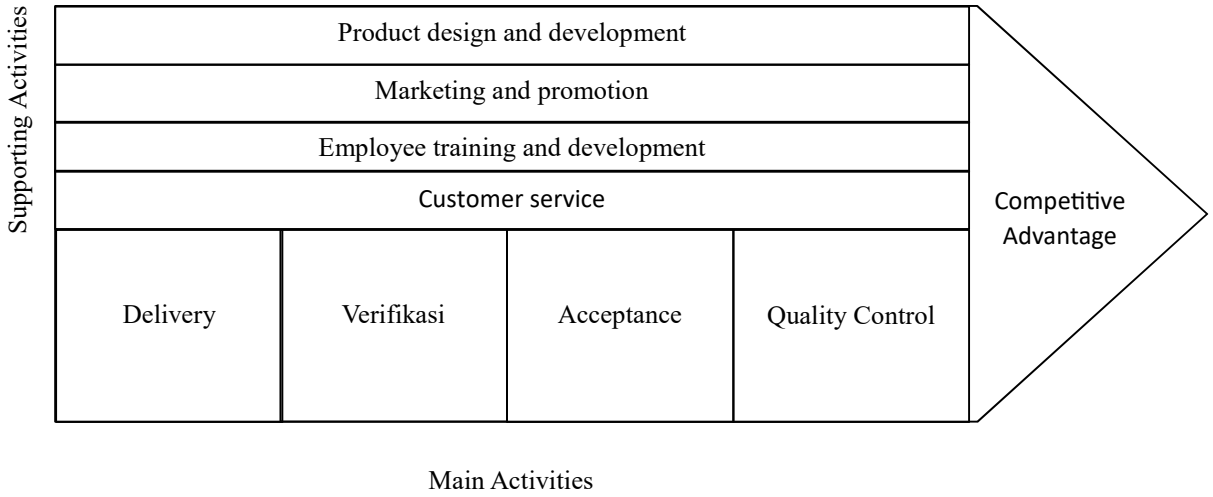


**Fig 3**: Value chain analysis (source: processed by the author)

According to Porter, 1998 in Arjakusuma, 2013, Value chain analysis is also a tool for strategic analysis used to understand competitive dynamics, identify the value of suppliers and customers, and understand the relationship between businesses and other businesses in the industry. So the results obtained for Value Chain Analysis at PT Global Fashion Indonesia are for supporting activities consisting of product design and development, marketing and promotion, employee training and development, and customer service. While the main activities consist of Delivery, Verification, Acceptance and Quality Control.

B. Business Process Modeling/BPMN As-Is

BPMN or Business Process Model and Notation is one of the standards used to model business processes, especially in the context of As-Is business process modeling. At this stage, modeling of the current business processes at PT Global Fashion Indonesia is carried out with BPMN standard modeling using the bizagi modeler tool. in this study, business process modeling was carried out using the BPMN standard, and used 4 business processes based on the results of the value chain analysis of PT Global Fashion Indonesia.

C. Stages Business Process Improvement (DMAIC process)

**Define**

At this stage, identifying problems that will arise in the company, this stage aims to find out the problems that exist in the company which will later be researched and identify problems that have occurred, explain the Critical To Quality (CTQ) production flow and use SIPOC diagrams to understand and know the production process. (Nurul Fitriana et al., 2021)

Aims to identify some of the main flows using the SIPOC diagram at PT Global Fashion Indonesia and determine some of the main processes in this method approach using the (SIPOC) diagram. The following is a SIPOC diagram from the beginning of the process to the end of the process at PT Global Fashion Indonesia:

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| Supplier | Input | Process | Output | Customers |
|---|---|---|---|---|
| • Sole Supplier<br>• Glue Supplier<br>• Shoe Material Supplier | • Glue<br>• Thread<br>• Skin | • Cutting<br>• Stitching/Sewing<br>• Assembly<br>• Cooling | • BTS<br>• Running<br>• Sandal<br>• Sneaker | • Shoppe<br>• Tokopedia<br>• Agent |

**Fig 4**: SIPOC diagram (source: processed by the author)

In this define stage where determining critical to quality is concerned with the characteristics of the products made based on customer needs (Alpasa & Fitria, 2014). One of the problems of PT Global Fashion Indonesia is customer returns caused by product defects that occur during the production process, such as weaving and finishing dyeing defects. Fabric defects resulting from weaving and dyeing finishing are categorized as critical quality (CTQ), including oil dirty, shabby, weft defects, reed marks or wrong combs, pick bars, and holes.(Elnathan, 2014)

**Measure**

At this stage, the main focus is on measuring and collecting the data needed to define and understand the performance of the process or system being analyzed. To find out the sigma level or sigma level achieved by the company, the first thing to do is to calculate the error per unit (DPU) and error per million opportunities (DPMO) values.(Suseno & Alfin Ashari, 2022)

The formula of Measuring Process Capability as mentioned below :

DPMO = Defective Products qty/ (Product inspect qty x Potential CTQ) X 1,000,000

| Handling Type | ID | Production qty | Defect Product qty | CTQ | DPMO | Sigma |
|---|---|---|---|---|---|---|
| Delivery 1 | 1 | 33.234,00 | 406,00 | 84,00 | 145,43 | 5,12 |
| Verifikasi | 2 | 406,00 | 300,00 | 84,00 | 8.796,62 | 3,87 |
| Acceptance | 3 | 300,00 | 200,00 | 84,00 | 7.936,51 | 3,91 |
| Quality cont | 4 | 200,00 | 100,00 | 84,00 | 5.952,38 | 4,01 |
| Average : | | 8.535,00 | 251,50 | 84,00 | 5.707,74 | 4,23 |

**Fig 5**: Six Sigma Level (source: data from PT Globa Fashion Indonesia)

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Therefore, the calculation of DPMO point 1 (delivery 1) is 406/ (33.234 x 84) x 1,000,000 = **145,43**

For the calculation of the sigma value is done with excel with the following formula:

Sigma Value = NORMSINV((1000000-DPMO)/1000000)+1.5

Sigma Value = NORMSINV((1000000-84)/1000000)+1.5

Sigma Value = **4.23**

Calculation for the capabilities of the 4 main business processes that experience waste is summed up and then divided by the number of business processes, so that the final value taken is the average value. Based on the results of measuring the overall process capability, the average DPMO value is **5.707** and the sigma value is 4.23. By obtaining these results, it can be used as a basis for the Company in improving the optimization of the operational system.

**Analyze**

The third stage in Business Process Improvement is Process Capability Analysis and Critiqal Waste Analysis. This stage focuses on an in-depth analysis of the data collected during the Measure stage. The main purpose of the Analyze stage is to identify the root cause of the imperfections or defects identified in the Define stage and to understand why these problems occur.

* Process Capability Analysis

So based on the results of measuring the overall process capability, the average DPMO value is **5.707** and the sigma value is 4.23. By obtaining these results, it can be used as a basis for the Company in improving the optimization of the operational system. With a sigma value of 4, 23, it means that the level of optimization of the warehousing system against defective products is at level 4. So the sigma level in this study is at the 4 sigma level. For level 4, it means that the indicators read as follows:

**Six Sigma Levels**

| Sigma (σ) Level | Process Capability (Cp) value | Defect Rate in PPM | Yield in % | Cost of Poor Quality (% of sales) | Competitive Level |
|---|---|---|---|---|---|
| 1 Sigma | 0.33 | 690,000 | ----- | 74% | Non-competitive |
| 2 Sigma | 0.66 | 308,537 | 69.1462 | 30 to 40% | Non-competitive |
| 3 Sigma | 1.00 | 66,807 | 93.3193 | 20 to 30% | Industry Average |
| 4 Sigma | 1.33 | 6,210 | 99.3790 | 15 to 20% | Industry Average |
| 5 Sigma | 1.67 | 233 | 99.9767 | 10 to 15% | World Class |
| 6 Sigma | 2.0 | 3.4 | 99.99966 | <10% | World Class |

**Defect at Sigma Scale:-**

| Sigma | % Good | % Bad | DPMO |
|---|---|---|---|
| 1 | 30.9% | 69.1% | 691,462 |
| 2 | 69.1% | 30.9% | 308,538 |
| 3 | 93.3% | 6.7% | 66,807 |
| 4 | 99.38% | 0.62% | 6,210 |
| 5 | 99.977% | 0.023% | 233 |
| 6 | 99.9997% | 0.00034% | 3.4 |

**Figure 6. Six Sigma Level** (source : https://techqualitypedia.com/six-sigma/).

Then the sigma level in this study is level 4 (DPMO of 6,210) or 0.62% defect. Or it can be said that the service provided is 99.38% From the table image above, it means that the optimization in handling the return of goods is at the average industry competitiveness level.

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* Analysis of the causes of waste

Of the 8 existing wastes (Defect, Over production , Waiting, Not Utilize talents, Transportation - unnecessary, Inventory -unnecessary, Motion -unnecessary movemvent, Excessive Packing or process), for PT Global Fashion after analysis, there are 5 wastes that occur as shown in the table below :

The Waste Causes

| Waste | the finding waste | why 1 | why 2,3,4,5 |
|---|---|---|---|
| | | | |
| Defect | 1) Insufficient checking of the quality control team | Products that do not sell well are damaged due to being stored for too long | less carton stacking and not according to SOP during the shipping process. |
| Overproduction | 2) waste in the production of products that do not match the order. | there is an inaccurate demand forecast. | Lack of clarity in communication between the production department, management, and production parties that do not match customer needs. |
| Waiting | 3) The SOP flow for maximizing the predetermined days is too long. | waste of time on activities that will be carried out next. | The warehouse area is not large so packing time is longer. |
| Transportation | 4) waste of transportation time for placing cartons into trucks. | cartons are transported using only trolly so it takes longer time. | the company has not provided tools that support the movement of goods. |
| Motion | 5) handling staff takes too long in checking goods. | Previous unfinished or delayed work may cause delays in checking newly arrived goods. | Lack of coordination or collaboration between departments involved in the goods inspection process can slow down the overall process. |

**Figure 7** : Waste (source: processed by the author)

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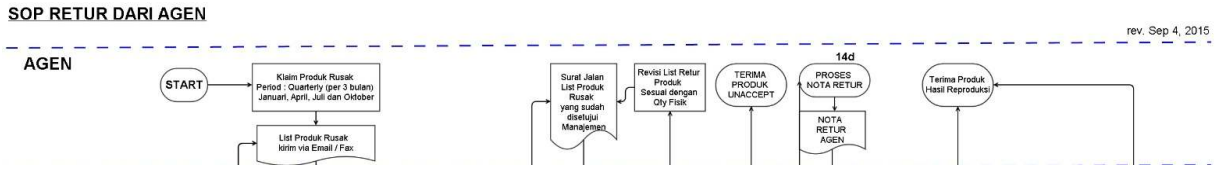
## Improvement

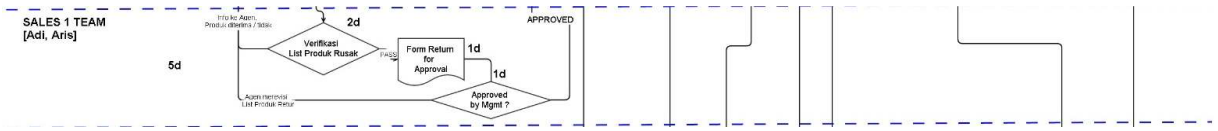
The stage focuses on the development and implementation of changes aimed at addressing the problems that have been identified at the define stage and analyzed at the analyze stage. The main goal of the Improvement stage is to achieve significant improvement results in product or service quality, as well as to reduce variability and minimize defects in the process.

## Busines Process Improvement

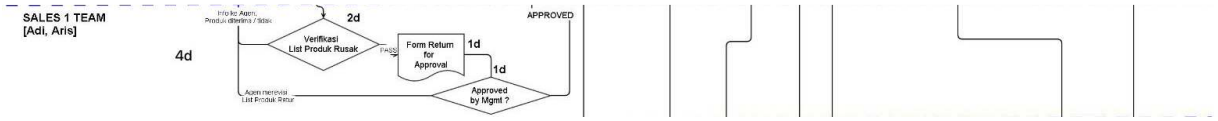
Delivery as is (1 day) by agent



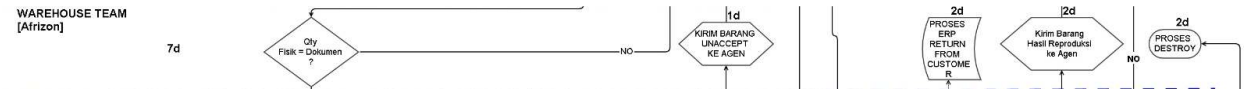

As is verification (5 days) by sales



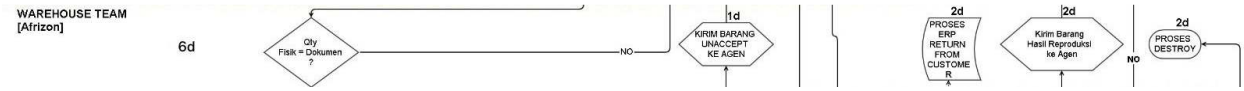

Verification to be 4 days by sales



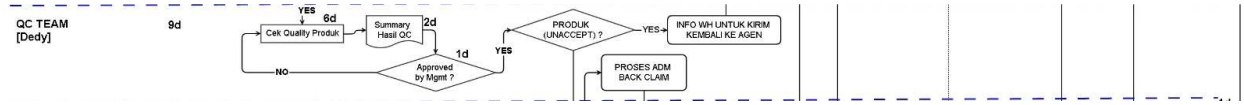

Acceptance as is (7 days) by warehouse




Acceptance to be (6 days ) by warehouse




Quality control as is ( 9 days) by QC




Quality control to be ( 7 days) by QC

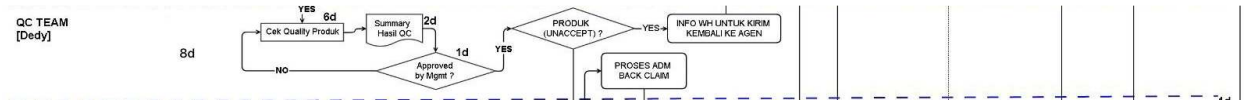



**Figure 8 :** Flow Chart of returning goods

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**Source: from PT Global Fashion Indonesia**

In this stage, improvements are made to the activity of returning goods where the purpose of this improvement is to find out that the company can get rid of waste in its activities as stated in the flow chart, namely waste of time, where it is stated in the verification section of the sales team division that it should be a maximum of 4 days of handling which was previously 5 days, in the warehouse section the maximum storage and handling should be 6 days which was previously 7 days, then the last one is in the Quality Control section which can be 7 days which was a maximum of 9 days. This greatly improves the company's performance in managing shipments and controlling returns

**Control**

The control stage in the Six Sigma-DMAIC method is the last step in the continuous improvement cycle, but the initial stage for continuous improvement. The control stage focuses on ensuring that the improvements that have been implemented in the Improve stage remain sustainable and consistent, and avoid the return of problems that have been resolved. The main objective of the Control stage is to maintain and monitor the results of improvements, and to keep the process running at an improved level of performance.

1) The result control
   Result control refers to monitoring and measuring the results of improvements that have been implemented in the Improve and Control stages of the DMAIC cycle. The purpose of result control is to ensure that the improvements that have been implemented produce the desired and sustainable results. It involves monitoring process performance and measuring improvement results using pre-defined metrics.

   Result control is an important step to ensure that the improvements that have been implemented in order to achieve Six Sigma goals continue and provide ongoing benefits to the organization. This also helps in organizational learning and continuous improvement in the future.(Djasmin, 2019) as with other companies, the company controls its employees by giving rewards to employees who do their jobs well and can provide value to the company. Vice versa, if employees make mistakes that harm the company, they will get punishments to commemorate the mistakes that have been made. This control is what the company does to reduce waste in every delivery and return activity.

2) Action control
   Action control helps ensure that the improvements planned in a Six Sigma project are executed effectively and according to plan. It also makes it possible to take the necessary corrective action if the improvement does not go as expected. The purpose of action control is to ensure that corrective actions are actually implemented and have a positive impact on process or system performance. In this control, employees give their best to the company and do their respective job desks, in this company they still apply openness to superiors and subordinates in their warehousing activities so that it will affect employee performance as well which in turn this performance also affects what employees give to the company.

3) Personel control
   personnel control refers to controls that involve management and supervision of personnel involved in Six Sigma projects. The purpose of personnel control is to ensure that project team

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members and other personnel involved in project execution adhere to established guidelines, procedures, and changes during the project. This plays an important role in maintaining consistency and compliance in carrying out improvements. This company implements lean which has been carried out by employees in each division, leaders also provide examples to employees for lean implementation which later employees will do it so that lean implementation will become a habit for employees in the company.

4) Culture control
Cultural control is a concept related to managing and controlling organizational culture. In the context of Six Sigma and continuous improvement management, cultural control refers to efforts to manage and change organizational culture to align with Six Sigma principles and continuous improvement goals. Organizational culture includes the norms, values, beliefs, attitudes, and behaviors that define how people work, collaborate, and innovate within the organization. In this problem by controlling employee behavior on employee performance with a morning talk to employees to evaluate previous performance.

## 5. Conclusion

The result of sigma level in this study is **level 4** (DPMO of 6,210) or 0.62% defect. Or it can be said that the service provided is 99.38% From the table image above, it means that the optimization in handling the return of goods is at the average **industry competitiveness level**. Can still be improved to level 5 and 6 sigma.

The results of this research provide an illustration of the problem raised, namely by reducing wastage of time, the occurrence of returned goods will be minimized because goods are damaged due to long storage in the warehouse, especially agents who sell the goods. Then control the return of goods by maximizing the quality control team in each section of goods checking.

This company applies **lean management or BPI (DMAIC).** because the application of lean will make a habit for employees who are responsible for their section, which will affect the character and performance of employees, and conduct morning talk as a daily target to find out what was achieved yesterday, what will be done today and what problem solving yesterday so that it is not done today. Then conduct weekly reviews and monthly reviews to improve performance and control of products that will be sent and returned later if there are returns of goods from customers, this is what the company can do to optimize the warehousing operational system to control the return of goods.

## 6. Implication

Implication is a consequence or direct result of the findings of scientific research. The results of this study regarding the optimization of the warehousing operational system to control the return of goods. Based on the results of the study it is known that the level of optimization of the warehousing system against defective products is at level 4 that PT Global Fashion Indonesia is at an average level. in connection with this, the implications are as follows:

a) To be more optimal, the company reduces waste during storage in the warehouse because it can reduce costs so that it is more optimal than before and can increase the selling period of a product.
b) To maintain the quality of a product, that is, it must increase periodic checks on the product to be sent.

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## 7. Research Limitation

Based on the direct experience of researchers in this research process, there are several limitations or obstacles experienced and there are factors that must be considered more for future researchers to further refine their research because this research itself certainly has shortcomings that need to be improved in future studies. Some of the limitations in the study include:

a. The author cannot see directly the process or flow of returning goods from downstream to upstream
b. Time constraints which make research limited if researching directly from agents

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