



INITIAL PROGRAM OF CONTINUOUS IMPROVEMENT IN THE COIL DEPARTMENT IN THE REGIOMONTANA SERVICE COMPANY

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Summary - The need to offer lower costs in the market, has led companies to review their procedures to detect the causes, which from the point of view of the efficiency and effectiveness avoid having products with shorter production times, quality and low costs. For this reason, different tools have been developed that help production managers to determine the causes of low productivity, improve indicators and make companies more competitive.

KEYWORDS. Quality, Bottlenecks, costs, continuous improvement.

ABSTRACT. The need to offer lower costs in the market has led companies to review their procedures to detect the causes, which from the point of view of efficiency and effectiveness avoid having products with shorter production times, quality and low costs. For this reason, different tools have been developed that help production managers to determine the causes of low productivity, improve indicators and make companies more competitive.

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INTRODUCTION

Continuous improvement is an indispensable pillar of all companies regardless of the turn that is dedicated as much as to the elaboration of products, or in the provision of services, the improvement of processes, real estate, areas and parts of the same product is of utmost importance, since while all the obsolete parts that affect the performance of the productivity and quality of the same must be eliminated thus giving a better fluidity in the manufacture in addition to the actions of the operation do not require activities that do not add a value to the product, so in the next project the implementation of an initial system of continuous improvement was carried out, which will help to reduce or eliminate the conditions and erroneous acts that are presented in the area of coils of the company COMPAÑIA REGIOMONTANA DE SERVICIOS S.A. DE C.V. the project was carried out with the purpose of establishing acts that help improve the activities that are executed in that area, it is worth mentioning that the improvement plan is a process that is used to achieve the total quality and excellence of the organizations progressively, in order to obtain efficient and effective results. The key point of the improvement plan is to achieve a relationship between processes and personnel generating a connection that contributes to constant progress.

PROBLEMAS TO SOLVE

- 1.-Identification of bottlenecks: identify the bottlenecks that are generated in the area of coils
- 2.- Application 5S's: Application of the 5 S's philosophy for a better distribution and identification of the tools and materials used in the coil area.

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3.- Reduction of downtime: eliminate through the implementation of 5 S's and the Poka Yoke tool the downtime generated by the delay in movements and unnecessary search for materials and tools.

4.- Implementation of the Deming cycle: since it is the basis of continuous improvement, the PHVA cycle tool was used

5.- Implementation of the Poka Yoke tool in operation personnel of the coil area.

Objectives of the research

General objective

Identify the failures that occur in the coil department during the process, to improve conditions by optimizing resources by initiating a continuous improvement program.

Specific objectives

- Detect bottlenecks
- Application of 5 S's
- Decrease in downtime
- Deming cycle application
- Poka yoke system in operation personnel tool

THEORETICAL FRAMEWORK

Background

[6] He carried out the work of Design and implementation of the 5S Methodology to improve the warehouse management of the CfG Inverto SAC Company, Lima 2018, where he carried out the activities in the fishing sector occupies a very important item. important in our country and many of them have achieved success as a result of implementing a system based on continuous improvement; this in order to improve from the development of a systematic plan to continuously maintain a culture of order, cleanliness within an organization and have better working conditions. The development of this research aimed to improve order, cleanliness and safety in the management of the warehouse of the company CFG Investment SAC. This improvement of the order, cleanliness and safety of the company within its processes has been based on the use of the 5S methodology. The thesis focuses on the dissection of warehouse management to know the problems and give solutions improving the management process. Subsequently, implement the 5S methodology: Classify (Seiri), Organize (Seiton), Cleaning (Seiso), Standardize (Seiketsu), Discipline (Shitsuke); to improve warehouse management and insurance for people and teams. The achievement of the improvement focused on systematically managing the elements and materials in the work areas, so that people can have adequate environments in the processes of warehouse management, according to five pre-established stages, which are conceptually simple, but requires effort, constant monitoring and perseverance to maintain them [6]

[7] I carry out the work "The 5 "s" a tool to improve quality, in the tax office of Quetzaltenango, of the superintendence of tax administration in the western region" where I carry out activities described below: The present thesis work is of an experimental type whose objective was to implement the tool 5 "S" and evaluate the effect on the quality of service in the tax office of Quetzaltenango, of the Superintendency of Tax Administration in the Western Region. This program consisted of training and implementing the following elements: classification, order, cleanliness, standardization and discipline, within the departments of Collection, Tax Registry of Vehicles, Tax Species and Unified Tax Registry, by the collaborators and users of the institution, these being an administrator, three supervisors, eighteen collaborators and ninety-five users, making a total of one hundred and seventeen subjects; with the aim of creating a culture towards quality [7]

[3] I carry out the work Implementation of a continuous improvement plan to increase customer satisfaction in the company Distribuidora Capistrano S.A.C., 2018. Its main objective was to improve customer satisfaction through the implementation of a continuous improvement plan based on process management. The development of the research was holistic, projective and mixed approach, where qualitative and quantitative data were analyzed as a whole. The qualitative results were obtained through the interview where seven questions were asked to three people from the company, and the quantitative ones through the results of the documentary analysis. From the results obtained, it was possible to identify that there were undesired processes and functions which harmed the distribution of our products and therefore prevented us from improving customer satisfaction. The purpose of the continuous improvement plan was the correct development for each objective, which have been established in favor of the organization in order to increase sales, improve the quality of our products, improve the level of service according to non-conformities and finally motivate participation of staff in order to increase productivity in their work [3]

[4] I carry out the following work called PROPOSAL OF AN IMPROVEMENT PLAN, BASED ON MANAGEMENT BY PROCESSES, TO INCREASE PRODUCTIVITY IN THE COMPANY DISTRIBUTIONS A & B with the objective, elaboration of a management model by processes for the company Distributions A & B. The company is dedicated to the production of bottled table water in drums with a capacity of 20 liters, and has been dedicated to this ruble of table water for a few years. The main objective of this research is to develop the proposal of an improvement plan based on process management, to increase productivity. This is done using, the company's process map, flowcharts, and cause-and-effect diagrams corresponding to the company's processes. The methodological process is based on collecting information through the analysis of documents,

using archives, documents, and questionnaires and the interview, whose purpose is to obtain data and information from documentary sources and observe the facts through the assessment by the respondents and interviewee, in order to be used within the limits of our research. The main result of this research is that the company Distribuciones A & B, would improve the production process, the sales strategies of the company and a possible increase in the satisfaction of employees and customers. Productivity would increase by 22.18%, water waste in the washing of drums would be reduced, a job that would not generate value would be eliminated and the company would have an annual continuous improvement cycle for a constant evaluation and performance of the processes [2]

[8] Performance of the LEAN MANUFACTURING IMPLEMENTATION SYSTEM with the aim of having a system through which the necessary activities are established to carry out the implementation of the basic concepts to achieve lean manufacturing. Therefore, the contribution is defined, it is desired to facilitate the implementation of the concept of lean manufacturing to impact on: Efficiency Quality Communication Cleanliness And Cost reduction, Leading companies in the quality revolution have learned that they can reduce their costs of operation, as well as improving the quality of its products and services more quickly and with the implementation of the Lean Manufacturing System. After having reviewed the tools and performed an exercise in real practice (See Appendix 1). It was found that a significant saving of \$31,000 Dlls per year was obtained through the reduction of operators, space and increase in productivity [8]

[9] Made the work PROPOSAL FOR THE IMPLEMENTATION OF THE TOOL POKA YOKE IN THE ELABORATION OF THE CHIPS TECHNIQUES IN THE TECHNICAL OFFICE AREA OF THE ENTERPRISE C. I. DUGOTEX S.A. Inside of processes run by this company, the technical office area plays a vital role in terms of splicing and flow of the information necessary for the optimal compliance of the Processes Productive already What it there where herself countess the information Necessary for the development y liberation a production of garments proposed by design and approved by the commercial area. Although the main objective of the Technical office area is to ensure the industrialization of the product and the continuous and clear flow of information; during the development of the present herself Determined Shortcomings in the processes carried out within the area such as reworking in the Information and delays in the delivery of final products, which have caused the loss of credibility of the internal customers, stops at the production plant and by ende the non-compliance in the arrival of the products to the Stores in the temporadas for the which Were proposed [9]

[1] I carry out the project THE DEMING CYCLE TO IMPROVE PRODUCTIVITY IN THE PROCESSES OF A TEXTILE COMPANY, with the aim of solving a general problem: How does the Deming cycle improve the productivity of the process area in the company

associated textile services SAC, Lima 2018?, being the general objective: To determine how the application of the Deming cycle improves productivity in the processes of the company of Servicios Textiles Asociados SAC, Lima 2018, as a Hypothesis that must be contrasted is: "The influence on the improvement of productivity is significant after applying the Deming Cycle". The research method is scientific, the type of research is applied, of explanatory level and with an experimental design of a quasi-experimental type. The study population were the results of the production for 30 days, before the application month of May and after the application of the Deming Cycle month of August, the sample is of non-probabilistic type. The fundamental conclusion is that, with the application of the Deming cycle to improve productivity in the company Servicios Textiles Asociados SAC, productivity increased from 11.70% to 56.30%, increasing by a 44.6%. It has been determined that the Deming cycle significantly improves the productivity of the associated textile services process area SAC, 2018. ($p=0.000$ Where the The difference between productivity before and after the application of the Deming circle is 44.6% [1]

REFERENCE MARK

Continuous improvement

Instrument to contribute to the ability to achieve the objectives of the organization.

Any improvement activity can be implemented according to the availability of resources that the entity has at any time (ISO,9001, 2015)

Product

A product is the result of a given process in the organization [5]

Revision

Activity that ensures the appropriateness, adequacy and effectiveness of the issue under review, in order to achieve the objectives established [5]

Quality: The degree to which a set of features meets the requirements. [5]

Efficiency: Relationship between the result achieved and the resources used [5]

Effectiveness: Relationship between the result and the objective [5] Procedure: Document that explains how to perform one or more activities. When the procedure is a document, it is called a "written procedure" or "documented procedure"[5]

Process: set of jobs, tasks, correlated or interactive operations that transforms input elements into output elements using resources [5]

Reprocessing: Action taken on a non-compliant product to meet the requirements [5]

PROCEDURE AND DESCRIPTION

1. - Identification of bottlenecks

The bottlenecks generated in the coil department of the corssa company are identified, through analyzing the procedure of the activities, reviewing the work instructions, and through inspections visuals.

2.- Application of 5 S, s

The Japanese philosophy 5 S, s is implemented in the coil department to achieve a better classification of materials, greater order, cleanliness within the area, achieve a standard in the department and a commitment by all los collaborators who participate in this department.

3.- Implementation of poka yoke:

An analysis is performed to implement the poka yoke tool in the coil area to eliminate downtime that is generated in the administration and organization of the tools used by the personnel of the coil area.

4.- Implementation of the Deming cycle:

The Deming cycle is implemented as it is the basis of continuous improvement systems and is a vital tool for management systems.

Application of 5 S s

- Classification and discarding
- Order
- Cleaning
- Standardization
- Commitment and discipline
- Implementation of Poka Yoke in work tools.



Image 2, Application Of the 5 Ss.

RESULTS



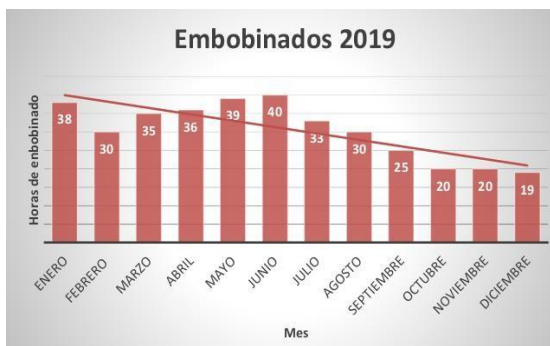
Image 1. Identification of bottlenecks.

The results were as follows:

In image 1, the cause-effect analysis is shown as shown in image 1, in image 2, evdeicnais of the application of the five eses methodology isshown. The activities in each of the implementations are also listed.

Implementation of the Deming cycle

- Plan
- Monthly review program of 5 S,s
- OEE Analysis
- Staff Training Scheduling
- Do
- Execution of 5 S program,s
- Execution of corrective actions
- Execution of new production programs
- Check
- Validate 5 S program reaction, s
- Verification of results of corrective actions to the production program
- Assessment of staff knowledge and skills
- Act
- Monitoring and improvement of 5 S program, s ñ) Improvement of production processes
- Improvement in staff efficiency



Graph 1 Winding time 2019

In graph 1, the time consumed by the winding is shown, and the times that were made on average per month of the year 2019 are identified.

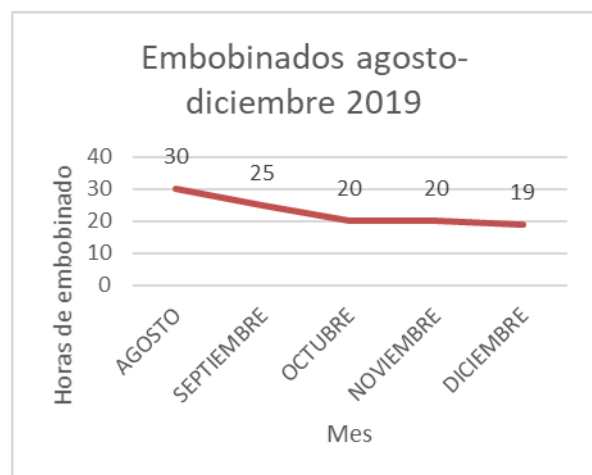


Figure 2. Winding time 2019

Figure 2 identifies the decrease in time required for winding during the time the project was performed.

CONCLUSIONS

The analysis of production processes is of vital importance since it is one of the bases to achieve continuous improvement; it is worth mentioning that developing the Deming cycle is the basis for developing any continuous improvement programs since this cycle is considered the basis.

With the support of all the employees of the company CORSSA it will be possible to achieve the continuous improvement of the processes executed in that company.

RECOMMENDATIONS

The company CORSSA is recommended to follow-up to the continuous improvement program, established in this process already. What the results obtained in this period of time of 4 months have been satisfactory which takes us to have one better service to our clients and optimize time and resources which leads to a better profit Economic.

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