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Elimination of Recutting in Garment Industries

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***Abstract*: The objective of the project is elimination of recutting which is bounced from sewing and cutting. The aim is the implementation of measures to avoid recutting and make the measure sustainable. The insight view of the project is fabric consumption and man power. The main purpose of cutting section involves cutting of garment panels precisely, consistent with the pattern shape and size as well as economically but involves frequent recutting. Recutting involves additional sources of raw material and man power. The reasons for recutting are to analysed and remedies are to be taken. The main cause is analysed that will help in the main causing factor for recutting.**

***Keywords*: Recutting, damage, defect.**

1. Introduction

The objective of the project is elimination of recutting which is bounced from sewing and cutting. The aim is the implementation of measures to avoid recutting and make the measure sustainable. The insight view of the project is fabric consumption and man power. Recutting involves additional manpower and fabric source and reduction may lead to a profitable production. Recutting involves additional time and causes delay in dispatch of finished goods. In case of no stock fabric the line will not finish and dispatch the order quantity.

The major causing defect is found and causes are discussed in a brainstorming. The causes were mapped in six categories under cause and effect diagram that includes Man, Machine, Material, Method, Measurement and Environment. The causes were to be validated using FMDA. The causes are given the Risk Priority Number and the highest scoring causes is given control measures for reduction. The measures are implementation and the results are noted and compared with the previous week data of recutting. The improvement is estimated. The resultant is expected to have a decrease in recutting percentage and the measures are implanted as Standard Procedure for the recutting in future use.

A. Recutting

In a Make to Order garment industry all the cut components will not outsource as finished garments. The cut order will not meet the order quantity due to many reasons. The reasons for recutting include Damage caused by operation and operators, Improper handling, Wrong marker from CAD, Cutting shape out, Missing parts, Size mismatch, Stain, Fabric defect, Shade variation. So, the panels are recut and the process is called recutting. Recutting involves additional sources of raw material and man power.


Fig. 1. Damage


Fig. 2. Fabric defect


Fig. 3. Other sewing issues (Cutting shape out)

Data is the building block on which fact-based decisions are made. The collections of facts and figures which can give a clear picture of a required work situation are called data. Data collection is the most important factor influencing the success of a problem identification process, which is the first step in any of the improvement projects.

Pareto analysis is a statistical decision-making technique that choose a limited number of tasks that have a large impact on the whole. the idea that by doing 20% of work, 80% of the advantage of doing the entire job can be generated. Or in terms of quality improvement, a large majority of problems (80%) are produced by a few key causes (20%). A Pareto diagram is a special form of vertical bar graph that helps in identifying “vital few” from the “useful many”. The principle involved is that very few causes contribute for maximum effect; whereas a number of other factors contribute only for a small effect. It is used while setting priority, while selecting the problem, and for

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identifying the most important root causes contributing substantially to the problem.

Brainstorming works by focusing on the problem and consciously coming up with as many solutions as possible, pushing the idea as far as possible. This is because the brainstormer not only comes up with new ideas in one of her sessions, but also develops and refines other people's ideas to create connections with other people's ideas. is particularly effective. Group brainstorming is very effective because it leverages the experience and creativity of everyone in the group. As individual members push the boundaries of their ideas, another member's creativity and experience can take them to the next level. A cause and effect diagram is a systematic representation of the relationship between the event under investigation and all possible influencing factors. It is used to investigate causal relationships, collecting data to confirm relationships and help stratification for developing countermeasures and associated procedures clearly define the problem, effect, or event that identifies the cause.

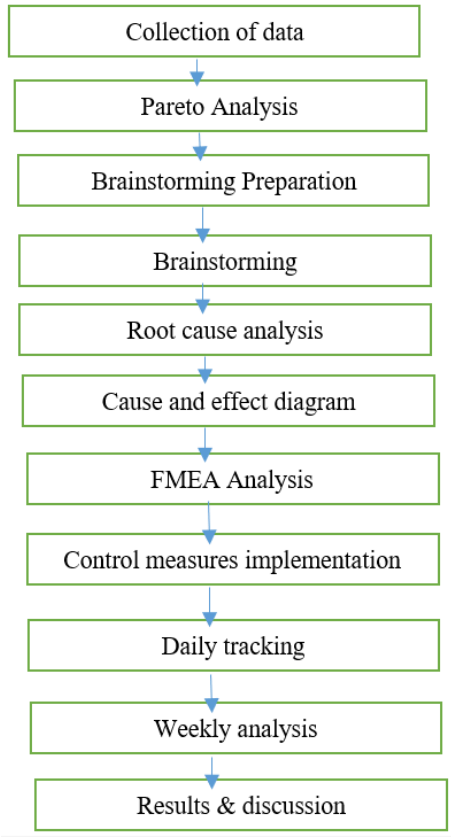

Fig. 4. Procedure

B. Root Cause Analysis - Cause and Effect Diagram

A cause and effect diagram is a systematic representation of the relationship between the event under investigation and all possible influencing factors. It is used to investigate causal relationships, collecting data to confirm relationships and help stratification for developing countermeasures and associated procedures clearly define the problem, effect, or event that identifies the cause.

- Man: Anyone involved with the process.
- Methods: How the process is performed and the specific requirements for doing it, such as policies, procedures, rules, regulations, and laws.
- Machines: Any equipment, computers, tools, etc., required to accomplish the job.
- Materials: Raw materials, parts, pens, paper, etc., used to produce the final product.
- Measurements: Data generated from the process that are used to evaluate its quality.
- Environment: The conditions, such as location, time, temperature, and culture in which the process operates.

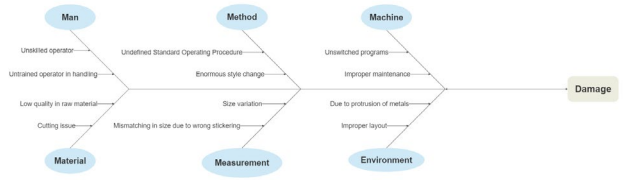

Fig. 5.

2. Conclusion

The above-mentioned procedure when followed effectively with daily follow up recutting can be avoided completely which would lead to improved production, less time consumption and manual resources.

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