



# STANDARDIZATION OF SAMPLE DEVELOPMENT PROCESS OF LEATHER PRODUCTS THROUGH INDUSTRIAL ENGINEERING TECHNIQUES

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### INTRODUCTION



- The leather product sample development process consumes more amount of time than the production process of the same season and it needs to be undertaken with special attention and importance to standardize the sample development process in the leather product manufacturing sector.
- There are many styles and articles takes place in every season and those leather product sample development can proceeds with only four different categories.
- To determine the solutions of causes by the technical representation of the fishbone(Ishikawa) diagram, so the problems can be visualized, diagnosed and resolved through industrial engineering techniques.
- By considering the four different categories of sample development process enable us to provide the time to create value added activities as supportive measures in production process.







### 4 CATEGORIES IN SAMPLE DEVELOPMENT PROCESS

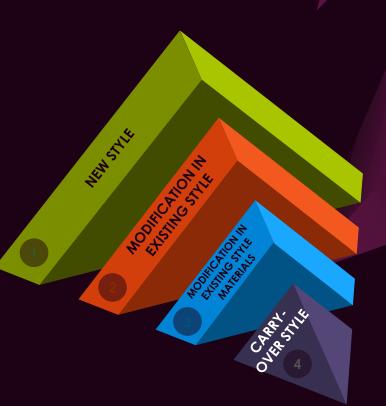




All the sample processes are necessary, this work starts from proto sample to the confirmation sample.

### MODIFICATION IN EXISTING STYLE MATERIALS

In this category, the process starts from colourway sample. Only the material procurement consumes time.



### MODIFICATION IN EXISTING STYLE DESIGN

In this category, the article can starts from review sample.

#### CARRY-OVER STYLE

In this type the samples can be proceed as per the request from the customer. Work study and method study are the constraints for eliminating the non-value added activities occurred in production process of previous season.





### PRODUCT ENGINEERING & DEVELOPMENT



**PED** department develops the design of the product and also designs the sequential process of manufacture a product and it undergoes in two divisions:

**Sample Process**: Design of the product as per the customer requirement.

**Tooling Process**: This process is filling the bridge gap between the sample development and production.





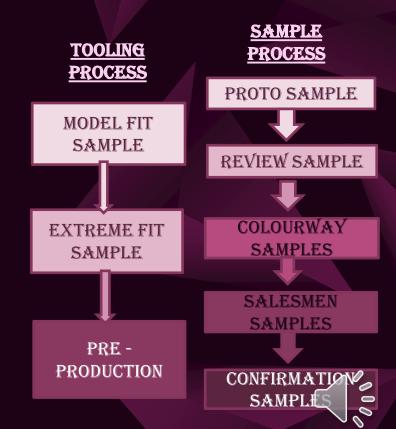


# STAGES OF WORKS HAVE TO CONSIDER ON SAMPLE DEVELOPMENT AND TOOLING PROCESS



- ▶ Determining the issues and difficulties in each stage of sample process.
- ▶ Planning and evaluation of the works of the design and development activities.

- Development of new methods, supportive tools and measuring devices for the production processes.
- Streamlining measures for the sustainability of the processes.





## ADVANTAGE OF CREATIVITY IN SAMPLING AND TOOLING PROCESS



- In Tooling process we can develop the value added activities and it will supports production process.
- ➤ By considering the four different categories of the sample development we can save and utilizes time initiate new methodologies and it will provide the efficacy in production,



#### **ADVANTAGES:**

- ✓ Minimization in work force
- ✓ Minimizing the operational process
- ✓ Supportive measures for production



### TRIAL MADE IN A LEATHER PRODUCT MANUFACTURING INDUSTRY

The work has trialed in M/s Ramjee Leathers and Supplies, Chennai. A leather garments manufacturing and exports industry.

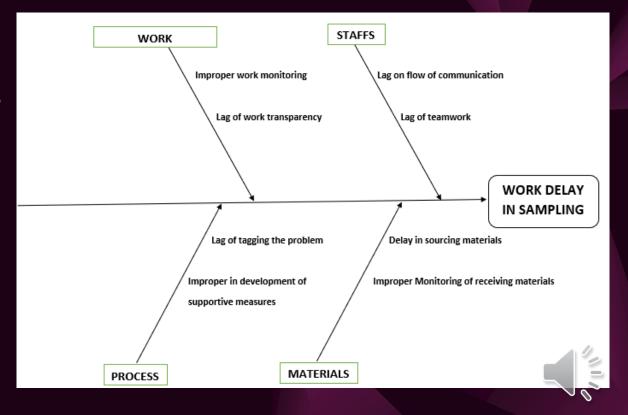






### **ISSUE ANALYSING METHODOLOGY**

The **fishbone diagram** is a **cause-and-effect** diagram that helps top management and managers to visualize and track down the for reasons imperfections, variations, defects, and/or failures.

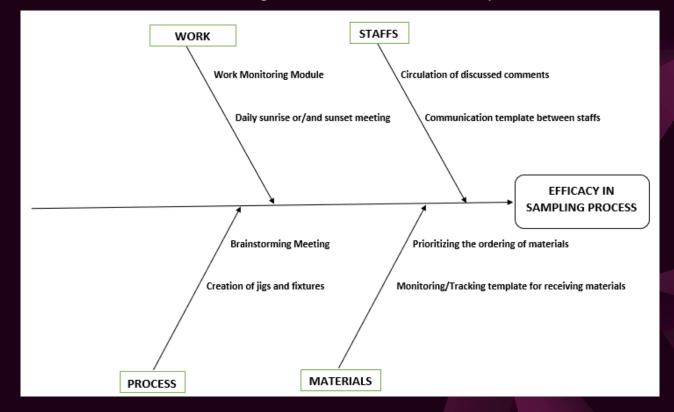




### **SOLUTIONS FRAMING METHODOLGY**



The way which considered for determining the issues in the same way we can frame the solutions







#### RECOGNITION FOR THE WORK



Government Recognised One Star Export House

06/03/2020

Dear Shri. Akshayaraman M,

1, on behalf the Ramjee Leathers and Supplies, appreciate you and your work efforts and sincerity in successfully handling the presentation. I was pleased to see the staffs accomplish the goals. I personally thank you for assisting the team and the achieving the targets. I am aware about the hard work and dedication you have put in this work and congratulate you for your valuable deliverables to our factory.

We sincerely appreciate your role in the success and hope that you will keep up the good work in the future also. We are pleased to have your co-ordination with our staff members. We are very well aware that you have put in lot of work on organizing the team in right way. It's because of your dedication and loyalty that the presentation was a success.

On behalf of the management we want you to know really value dedication towards work.

Thank you for giving your best to our company.

Thanking you,

for RAMJEE LEATHERS & SUPPLIES

Partner / Authorized Signator





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Manufacturer & Exporter of Leather Garments and Go







### **ACKNOWLEDGEMENTS**





