

A Framework Development for Process Benchmarking in Sugar Cane Factory

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ABSTRACT-In response to requests from managers in overseas factories, a number of technical benchmarks have been developed and applied to a number of factories, including those involved in the manufacture of refined and sulphite white sugars, as well as of raw sugar. These benchmarks are presented and discussed in this paper. The SWOT analysis is done to know about the Strengths, Weaknesses, Opportunities and Threats. In today's competitive environment, it is difficult to successfully produce high quality, low cost products. The SWOT analysis can assist in knowing about the strengths, weaknesses, opportunities and threats and realize the problem which can be faced by local sugar factory. This paper represents the ways to achieve higher efficiency by reducing the weaknesses and threats which are faced by sugar factories.

Keywords-Benchmark, sugar factory, "SWOT analysis."

I. INTRODUCTION

Benchmarking is a tool to measure the manufacturing performance against a standard which is achievable in local sugar factory. Presently, the benchmarks were examined and considered to be deficient in taking into account variations in cane quality and the layout of the factory. [1] To determine what were the improvements are called for. [2] To analyze how the organization achieve their high performance level. [3] How to use all the information to improve the performance.

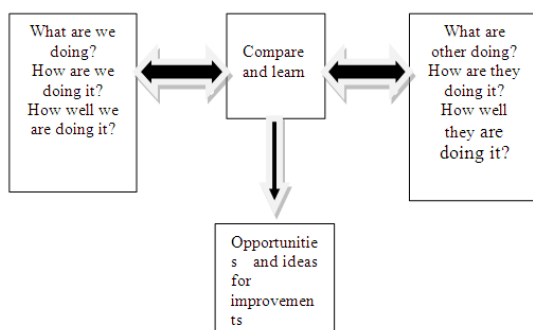


Figure.1 Benchmarking

II. LITERATURE REVIEW

Chamnanhlaw ,C; Solving truck allocation problem in sugarcane industry by genetic algorithms. has observed that transportation is the biggest effecting factor in sugar industry. He tried to reduce the truck allocation problems [4] P.G.Wright, Process benchmarking in sugarcane factory, sugarcane technology has worked on POL losses, bagasse loss by using css formulae,[10]. In this paper, we have

performed the SWOT analysis of the sugar factory situated in Kabirdham (Chhattisgarh). Firstly, we collect the information about the factory and arrive at the Strengths, Weaknesses, Opportunities and Threats Then study should is required to understand the reasons for the weaknesses and also the ways in which the threats can be overcome.

III. PROBLEM IDENTIFICATION

Sugar mill do not have any planned working and the sugar cane as the raw material is used to manufacture white sulphite sugar. The training programmes are absent, there is no management of raw material and the latest technology is not used.

IV. METHODOLOGY

The objective of this research is to know the status of the Strengths, Weakness, opportunities and threats, so that we can understand which factors should be considered and which should be neglect for increasing the efficiency and improvement of work culture. So, the SWOT analysis has been performed.

V. DATA COLLECTION

Data collection is an important aspect of any type of research study. The goal of data collection is to gather information on the problems in a sugar mill. All this information should be collected by various departments.

A. Data also provides the foundation for:

- Defining the strengths or good factors of sugar mill
- Identify the weakness of the industry
- Know the opportunity to increase the growth of sugar mill
- And threats which are required to be faced.

B. Details of sugarcane factory

main stages of production are the stages where As we know that in sugar-cane factory the sugarcane as raw material is obtained from farmers, crushed in the crushing mill and the baggages will added with water and mixup is done they get juice of sugar cane and then in crystallization stage it will converted into white sulphite sugar and Then finally the packing is done and moved to warehouse for storage and distribution to various places.

VI. RESULT

After the survey of the sugar mill the SWOT analysis has been performed;

a) *Strengths;*

1. Availability of raw material (sugar cane)
2. Good atmosphere for farming of sugar cane
3. Good transport facility
4. Nearer to city so that easy to access to market

b) *Weakness;*

1. Not proper arrangement of department
2. Low efficiency machines
3. Unskilled labour
4. Not proper training programme conducted for employees

c) *Opportunities;*

1. Single factory in the range of 500 km leads to high demand of white sulphite sugar. So, with the increase in production the profits will also increase.
2. The use of latest technology machines will increase the output.
3. By giving better farming guidelines to farmers the production of sugarcane can increase.

d) *Threats;*

1. The area is covered by forest and wild life and due smoke from the chimney and the chemicals released from industry will pollute area.

VII. CONCLUSION

This research has been done for sugarcane factory and by survey we will get all the information like strengths, weakness, opportunities, and threats so that we can justify that what are the good factor and bad factors of sugar mill .We analyze all the factors and by knowing the factors we that weightage is to be given to which factor achieve our aim of high production and reduced maintenance cost and unnecessary delay.

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