STUDY TO REDUCE COST PRICE OF WOOD PRODUCTS MANUFACTURING BY VALUE ENGINEERING

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Abstract - The Engineering management development and actions are generally well defined and well-understood at all levels in the industry. Engineering management is recognized as an efficient tool to advance the performance of a product with reduction in cost without plummeting in quality. . A proper decision matrix is prepared for choosing the appropriate alternative from the feasible choices available. The total saving which can be incurred per product by the execution of above recommendations is
14.87 % for substitute I and 27.44 % for alternative-II. Transformation in Technology and Globalization can rapidly boost which create massive demand but not necessary for the similar types product at the same price tags. These forcing companies think another way and look at their cost and create product to meet needs of marketplace and trends.

Key Words: Engineering management, Performance, Decision Matrix)…

1. INTRODUCTION

Importance of manufacturing is a methodical and planned approach to providing the essential function in a assignment at the lowest cost. Engineering management study technique can be applied to any product and can be process modus operandi system or examine in dissimilar type of commerce or market activity including health care, construction, industries and in the service sector areas. It is a primary aspect of engineering management such that basic functions can be preserved for the significant improvements. Its main significant for improvements of quality and dependability of the product by focusing the team's attention on the functions that are identify most to the problems, and the most likely reason behind these problems.

PRESENT SCENARIO OF ENGINEERING MANAGEMENT IN MANUFACTURING INDUSTRIES

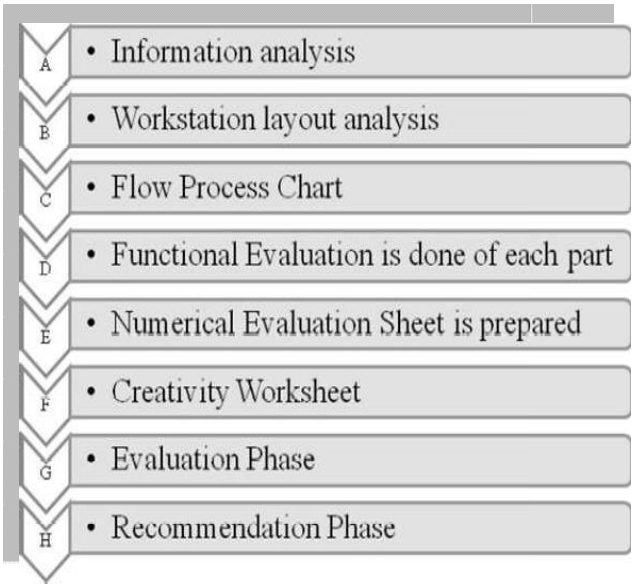
In the present scenario Engineering management play an important role to it control over the various factors such as cost, performance and quality, of the various products in the industries. Engineering management is concerned with the cost, quality, improvement, and installation of integrated system of men, material, and machines for the benefit of the industries. It provides specialized knowledge and skills in the methods of engineering study, predict and evaluate the results to be obtained from such systems. For every industry it is necessary reduce the extra cost associated during the production time and maintain the quality of the product up to certain level according to the demand of the customer and all these things helps the company for his survival as a competitor in the market.

BENEFITS OF VALUE ENGINEERING

1. Quality management
2. Improving resource efficiency
3. Simplifying procedures
4. Minimizing paperwork
5. Lowering staff costs
6. Increasing procedural efficiency

7. Optimizing Lowering Operation & Maintenance costs
8. Improving construction expenditures
9. increasing value attitudes in staff
10. rival more successfully in marketplace

2. METHODOLOGY



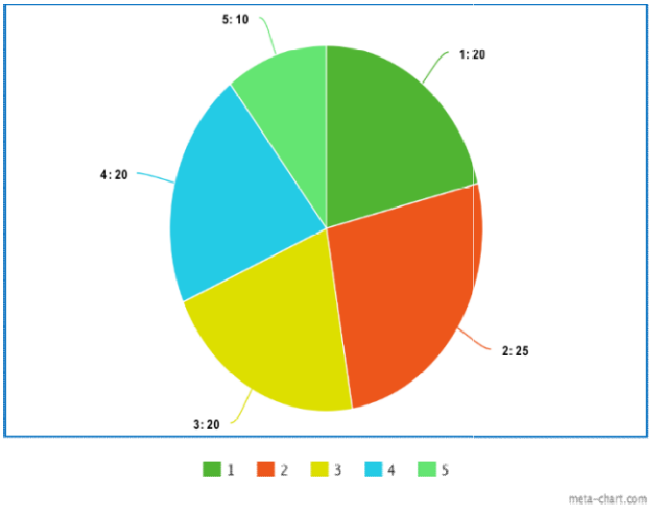


Chart 1 Component's Weight and % Cost

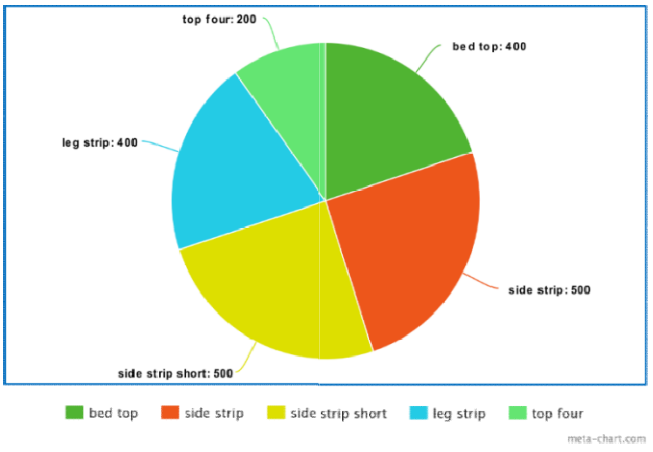


Chart 2 Existing Cost, Estimated Cost and Value Gap

CONCLUSIONS

To finish the new cost is calculated and compared with the before implementation of Engineering management .This table shows that the company is having more cost on existing and the cost of the couch is less in Alternate-I and option –II, therefore the company needs to improve their system and reduce the waste time and operation.

A proper decision environment is prepared for choosing the appropriate alternative from the feasible choices available. significance of Job Plan study led to saving Rs 290 per piece for Alternative- I which is a % saving and saving Rs 535 per piece for option- II which is a 27.44 % saving. Average annual saving for option- I is Rs 9, 57,000 and option-II is Rs 17, 65,500 for these components. The improvement in the manufacturing processes increased the production in the Wood products industry. By the regular inspection for improvement of system start from the raw materials inventory to the work in process finished with finish goods inventory can help to improve the performance system, thus ultimately Benefit is arrived for an annum as shown above and the cost of Wood products.

REFERENCES

[1] A J Chavan, "Engineering management In Construction Industry", International Journal of Application or Innovation in Engineering (IJAIEM), Volume 2, Issue 12, December 2013, ISSN 2319 – 4847.

[2] A Chougule, A. K. Gupta and S Patil, "Application of Engineering Technique to A Residential Building – Case Study", International Journal of Innovative Research in Advanced Engineering (IJIRAE), Volume 1, Issue 12, December 2014, ISSN:2349- 2163.

[3] P Singh and J Singh, "Application of Engineering on Chassis Component for HCV — A Case Study", International Journal of Knowledge Engineering, Vol. 2, No. 1, March2016.

[4] Chougule Mahadeo and Kallurkar Shrikant, "Application of Engineering For Cost Reduction – A Case Study of Universal Testing Machine", International Journal of Advances in Engineering & Technology, Vol. 4, Issue 1, pp. 618-629, July 2012, ISSN: 2231-1963.

[5] Habibollah Najafi, Amir Abbas Yazdani and Hosseinali Nahavandi, " Engineering and Its Effect In Reduction of Industrial Organization Energy Expenses", International Scholarly and Scientific Research & Innovation, Volume 4, Issue 2, PP 68- 74,2010.

[6] K. Ilayaraja and Zafar Eqyaabal, "Engineering in Construction", Indian Journal of Science and Technology, Volume 8, Issue 32, November 2015, ISSN (Print): 0974- 6846.

[7] Mostafa , M. Mortazavi and N.Abarghouei, "Implementation of Engineering for strategy formulation - Case study: Fisheries sector", Iranian Journal of Fisheries Sciences, Volume 10 Issue 4, PP:689-707,2011.

[8] Nayana Tom and V. Gowrisankar, "Engineering in Residential House Construction", Volume 6, Issue 6, PP. 46- 52, June 2015, ISSN 0976 – 6308(Print).\