COST MANAGEMENT TECHINIQUES USED IN SUGAR INDUSTRY

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Abstract:

Cost management is the most important in all manufacturing industries. Even Sugar industry also requires effective cost management techniques to reduce the cost of manufacturing. We use following techniques of cost management. i.e. Just in Time Approach, Material Requirement Planning (MRP), Enterprise Resource Planning,(ERP),Activity Based Costing, Activity Based Management (ABC,ABM), Total Quality Management (TQM),Value Chain Analysis, Target Costing, and Life Cycle Costing with the help of the above techniques. We study how to minimize the cost of production and what are the best ways to apply these techniques to achieve targeted goal of sugar industry?

Key words: Cost Management, MRP, ERP, ABC, ABM, TQM, and Target Costing

Introduction:

Cost and profit are co-related and they are interdependent. If the cost of production is less, profit will automatically increase and if cost of production is more, profit will decrease. Here It is common economic rule that we should not reduce the cost. It's better to control cost. By using good cost management techniques such as, MRP, ERP, ABC, ABM, TQM, Target Costing and Budgetary control.

Brumbay (2008) said, we should take care of the cost and the profit which will take care of itself. The aim should be that cost should be controlled not reduced unscientifically it will lead to lowe the quality of product. The standard of cost of production will set. Then actual cost of production will be compared with standard and the variance can be eliminated by effective cost control.

Basic need of any business organization is to have incurred reasonable costs and same way effective utilization of available resources to achieve the set standard target .First we need to set standards then maintain accordingly.

Review of Literature:

Nowadays all the sugar manufacturing industries are looking for the best way to control cost with modern cost management techniques. One of the basic objectives of sugar industry is to achieve cost control.

Sikka (2003) he had an opinion that the effect of cost accounting is measured primarily with the extent to which it has been able to bring about a control over manufacturing and other cost.

According to Anthon (200 cost management is defined as it is a broad set of cost accounting methods with the goal of improving business cost efficiency by reducing costs or at least restricting their rate of growth, ultimately enhancing the efficiency of specific areas such as departments, divisions or product lines within their operation.

Lockeper (2002) defines cost control as a practice of comparing the cost of business activity with the original cost in order to ascertain its cost as it is planned. It is understood cost accountant by himself does not control the expenses. He merely guides the control expenses. The expenses can only be controlled by the person who incurs it.

Statement of the Problem:

The rising cost of production of the sugar industry is noticed and it is a problem that how the best cost control techniques are used to reduce the cost. Neighboring countries, where cost of manufacturing is relatively low as compared to what is happening in India. The use of effective cost control system needs to overcome the situation and for which a systematic study is needed.

Objectives of the Study:

1. To study what are the cost management techniques used in sugar industry.
2. To study the relationship between cost controls and profit growth of sugar industry.
3. To study the requirements for implementing effective cost management techniques used in sugar industry.

Research Methodology:

The study is based on secondary data which is collected from books, annual report, websites, journals, and research articles.

Limitation of the Study:

1. The study is only limited to sugar manufacturing industry
2. Modern cost management techniques used in sugar manufacturing industry are considered such as Target Costing, Life Cycle Costing (LCC),Just in Time Purchase (JIT),Material Resource Planning,(MRP), Enterprise Resources Planning (ERP),ABC,ABM,TQM,VCA,

Need of the study

The study is very helpful to give suggestion which is very suitable for cost management techniques in sugar manufacturing industry to control cost and to increase revenue.

The present study throws light on the application of cost management techniques which are used in sugar industry.

Analysis:

Modern sugar industries use the following cost management techniques.

1. Target Costing.
2. Life Cycle Costing.
3. Just in Time Approach.
4. Material Requirement Planning (MRP).
5. Enterprise Recourse Planning (ERP).
6. Activity Based Costing (ABC) and Activity Based Management (ABM).
7. Total Quality Management (TQM).
8. Value Chain Analysis.

1. **Target costing:**

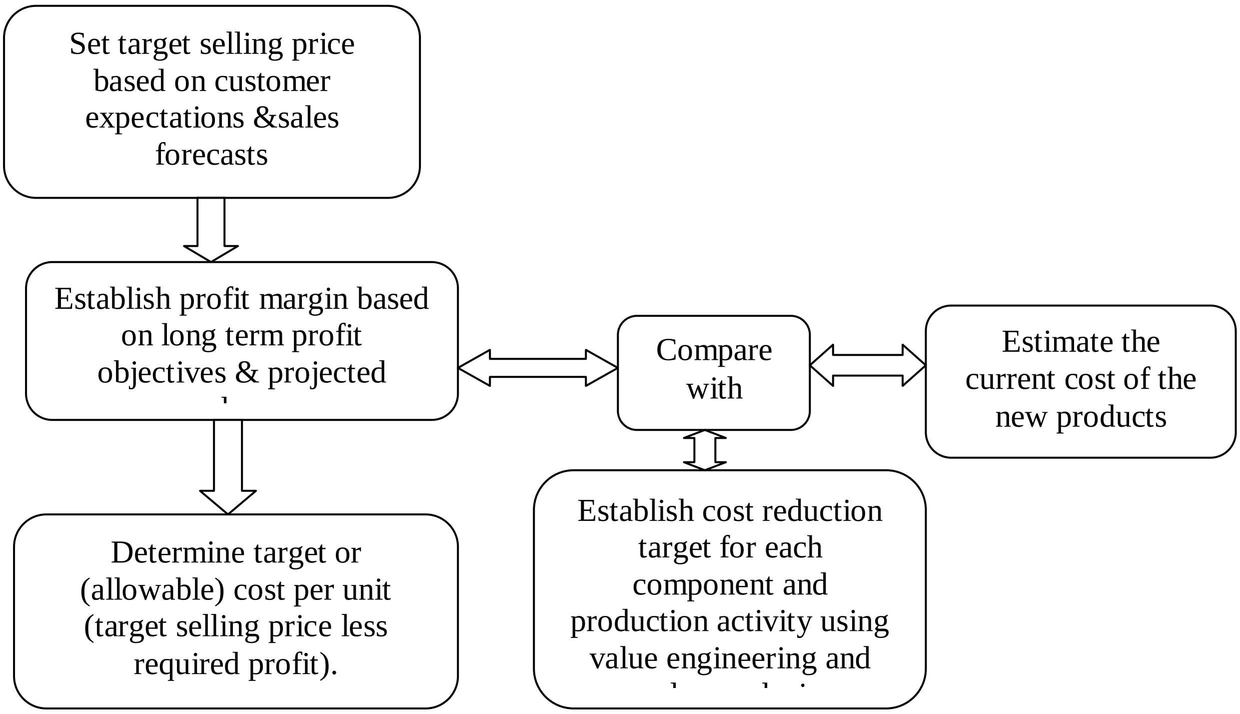
   Target costing is practiced in more than 80% percent companies in Japan and more than 60% companies in processing industries. Japanese companies were experiencing shortage of resources and skills required for the development of new concept tools and techniques which are required to achieve parity with the toughest western terms of quality, cost and productivity. A range of specialized tools including functional analysis, value engineering, value analysis and concurrent engineering were introduced to support target costing.

Definition of Target Costing: "A structured approach to determine the cost at which a proposed product with specified function and quality must be produced to generate a desired level of profitability at its anticipated selling price".

Main features of target costing:

a. It is an integral part of the design and introduction of a new product. It is a part of an overall profit management process rather than simply a tool for cost management.
b. In Any given product a target selling price is determined by using varians analysis and sales forecasting techniques. It should be a reflection of the competitive environment.
c. Target selling price is the establishment of target production volumes which give the relationship between price and volume.

Steps in target costing



1. **Life cycle costing:**
   It is totally different from traditional cost accounting system. It reports profitability on a calendar basis i.e. monthly, quarterly and annually. It involves tracing cost and revenues on a product by product base over several calendar periods. Life cycle of a product vary from product to product from a few months to several years in case of cameras, photocopying machinery etc. The usefulness is more than 100 years. In case of black and white TVand VCR it was for few years.

Features of life cycle costing:

a. The products have specific lives and part through the cycle of development. Introduction, growth, maturity, decline and deletion at varying speeds.
b. Cost revenue and profit are predictable course through the product life cycle. Profit appears at growth stage and after stabilizing during the maturity stage than decline.
c. It requires research and development emphasis in the development stage and cost control emphasis in the decline phase.

d. It provides an overall framework for considering total incremental cost over the entire life span of a product.

2. **Just in time approach:**

Its approach is a collection of ideas that streamlines a company's production process activities to such an extent that wastage of all kinds viz of time, material and labour is systematically driven out of the process. A company must ensure that it receives products spare parts/materials from its suppliers on the exact data and at the exact time when these are needed for this reason purchasing staff must investigate and evaluate every suppliers, eliminate those who could not keep up with the delivery.

Features of just in time approach:

a. Deliveries should be sent straight to the production floor for immediate use in manufacturing products so that there is no time to inspect incoming parts for defects.
b. The engineering staff must visit supplier's site and examine their process guide to bring up to a higher standard of product.
c. It will focus on eliminating all waste from a system. This can be a wastes of assets excessive inventory. It can also be a waste of time in the case of assets. It may include unused assets for long period of time. WIP inventory held in production queue it can also be waste of materials unnecessary level of obsolete inventory.JIT system vastly reduce all these types of waste.
d. It will reduce various kinds of waste of time so that the entire production process can concentrate on the time spent in actual producing products.
e. JIT will charge cost drives to activities that accumulate cost. It will lead to direct active role in reducing unuseful activities.

3. **Material Requirement planning (MRP):**

Material Requirement Planning is a computerized production scheduling system which takes forward the schedule of final product requirements and translates it progressively into the no of sub assets, components and raw materials required at each stage of the manufacturing cycle. It is a management information system providing a basis for production decision when, what is manufactured has a composite structure and when lead items are important features. The ability of the system to deliver what is required in the correct place at correct time will be dependent on the quality of information which is put into the computer model.

Features of MRP:

a. Find out final product namely what would be produced and at what time.
b. Calculate the required units of production of sub assemblies.
c. Determine inventories, work in progress, batch sizes and manufacturing and packing lead times.
d. It is detailed forecast of the inventory position highlighted period by period usually used to plan a future time period of manufacturing operation like a month, quarter or even year into the future.

4. **Enterprise Resource Planning (ERP):**

It is latest high end solution which information technology has lent to business application. It combines all computerized departments together with the help of single integrated software program that runs off a single database so that various departments can more easily share information and communicate with each other. Today companies in India have gone in for implementing of ERP.60% percent companies implemented ERP to give competitive advantage.

Features of ERP:

a. It is a wide integrated information system covering all functional areas like manufacturing, selling and distribution, payables, receivables, inventory, accounts, and human resource purchases etc.
b. It solves the information gap across organization.
c. It is a solution for the best project management.
d. It stimulates introduction of the latest technologies like Electronic Fund Transfer (EFT), Electronic Data Interchange (EDI), Internet Video Conferencing-Commerce etc.
e. It solve the most of business problems like material shortages, productivity enhancements, customer service, cash management, inventory problems, quality problems, and prompt delivery.

5. **Activity Based Costing (ABC):**
ABC is mere modern absorption costing method and was introduced between the years 1960s and the 1980s to produce mere accurate product cost. It is an accounting methodology that asigns costs to activities rather than products or services. This enables resources overhead costs to be more accurately assigned to products and services that consume them.

Features of ABC:
a. ABC is must where production overheads are high in relation to direct costs.
b. ABC is needed Where there is great diversity in the product range.
c. The products which use very different amount of the overhead resources.
d. Implementation of ABC is to improve product costing where a belief exist that existing methods under cost some products and overcast others.
e. It is suitable to identify non-value added activity in production process.

6. **Activity Based Cost Management(ABCM):**
It is disciple that focuses on the efficient and effective management of activities as the route to continuously improving the value received by customer and the profit received by providing the value.ABM utilizes cost information which gathers through ABC through various analysis. It manages activities rather than resources which ABC supplies the information and ABCM uses this information in various analysis designed to yield continuous improvement. The ABCM currently being used for variety of business application such as activity based budgeting,benchmarking,cost reduction, performance measures and business process re-engineering.ABM is much broader concept it refers to the management philosophy that focuses on the planning execution and measurement of activities as the key to competitive advantage.

7. **Total Quality Management**
By focusing on the management accounting function we will devise a process through which quality improvement methods might be used to highlight problems areas and facilitate their solution on initial understanding of the difference between the quality control, quality assurance and quality management.
Quality Control: It is concerned with the past and deals with data obtained from previous production which allows action to be taken to stop the production of defective units.
Quality Assurance: It deals with present and concerns the putting in place of system to prevent defects from occurring.
Quality Management: It deals with future and manages people in a process of continuous improvement to the products and services offered by the organization.
Features of TQM:

a. Application of the new management accounting practice is to the professional services and environment remains rare.
b. It is a systematic process implemented to identify and adopt solution to prioritized opportunities for improvement.
c. It will highlight the need for a customer oriented approach to management reporting eliminating some of over more traditions reporting practices.
d. TQM culture is to be developed so that quality improvement becomes a normal part of everyone's job and a clear commitment from the top must be provided.
e. TQM is a process, not programme it is never ending search for ways to do the job better.
f. There is always room for improvement however small……..?.
g. TQM may not be appropriate for service based industries because it ignores the culture of organization. TQS is suitable for service sector (Total Quality Service).

8. **Value Chain Analysis :**
It was suggested by Michael Porter (1985) to depict how customer value accumulates along a chain of activities that leads to an end product or service. It is the internal processes or activities a company performs to design, produce, market deliver and support its product. The value chain for any firm is the value creating activities all the way from basic raw material sources from component suppliers through the ultimate end use to product delivered into the final consumers hands.

Features of VCA:

a. It will require a team effort. Management Accountant of today has to collaborate with engineering production, marketing distribution, and service professionals to focus on the strength, weakness, opportunities and threats identified in the value chain analysis results.
b. Enhances the firm value and demonstrates the value of the finance staff to the firms growth and survival.
c. Value chain analysis is neither an exact science nor it is easy more art than preparing precise accounting reports.

Relationship between cost control and profit growth of sugar industry:

The relationship between cost control and profit is interdependent. We take care of cost, it will take care of profit. So effective cost control is must for sugar industry. The application of cost control is must to enhance the profitability of the organization.
The cost control should have following steps:
1. Setting up the targets.
2. Measurement of the actual.
3. Comparison of actual with targets to ascertain variances.
4. Analysis of variants to their course.
5. Taking such correct action is necessary to eliminate the variations.

Requirement for implementing cost management techniques used in sugar industry:

It is team work and support from top level management to lower level management. Is required the following point should be remembered to implement cost management techniques in sugar industry.
1. Establish good cost accounting department.
2. Select which cost management techniques are suitable for sugar industry such as Target Costing, Life Cycle Costing, Just in Time Approach, Material Requirement Planning (MRP),

Enterprise Resources Planning (ERP), Activity Based Costing (ABC), Activity Based Management (ABM), Total Quality Management (TQM), and Value Chain Analysis.

3. Each technique has its limitation. We should select most useful and easy way to apply techniques of cost management.
4. Proper training should be given to the staff to educate about techniques implementation in industry.
5. First training should be given to management body. These techniques will reduce the cost and directly increase the profit.
6. At a time all techniques of cost management should not be implemented. The things should be used on trial and error base.Initialy one or two techniques should be practiced.
7. Profit is backbone of organization. It can be achieved by decreasing cost as well as increasing selling price later is not held good in long run being competitive we should control cost then reduce.

Suggestion

1. The effective cost control should only be possible by using modern cost management techniques such as Target Costing, Life Cycle Costing, Just in Time Approach, Material Requirement Planning (MRP), Enterprise Resource Planning (ERP),Activity Based Costing (ABC), Activity Based Management (ABM),Total Quality Management (TQM),and Value Chain Analysis.
2. Success of using modern cost management techniques only possible when management team and staff will give proper training about how these techniques will work.
3. These techniques are used in production stage to ultimate consumption stage.
4. These techniques are implemented step by step.
5. For effective implementation of these techniques there should be proper data collection, analysis and administration at all level of the industry is must.
6. To competitive advantage, one should need to follow modern cost management techniques in manufacturing industry with good management and responsibility accounting system.
7. With JIT approach, we can remarkabl decrease in wastages and losses in production process.
8. Target costing is more useful when majority of product cost is locked during the product design stage.
9. Where new product is launched Product Life Cycle Costing is holds good. It provides an overall framework for considering total incremental costs over the entire life span of a product.
10. Success of MRP (Material Resource Planning) it requires stick on to the latest production and purchasing schedules and worker should be educated in this regard.
11. Where automatic quality control is required in production process then ERP should be implemented.
12. Where belief exist that existing methods under cost some products and over cost others. Then ABC and ABM (Activity Based Costing, Activity Based Cost Management) techniques will implemented.
13. TQM is the best technique where continues improvement which enhances the satisfaction of customer requirement for sugar industry. It is must so all the sugar industry needs to follow TQM. (Total Quality Management).
14. Value Chain Analysis completes overcome to traditional management accounting. It will use internal and external data.It will also use appropriate cost drivers for all major value creating process.

Conclusion

Implementation of cost management techniques is a positive impact on organization. Profitability and the element of material, labour, overhead and employee attitude could be controlled with instrument like responsibility accounting, data collection and data reporting. The management should educate the employees how cost management techniques are helpful to reduce cost and how targeted revenue can ultimately be achieved. To lead outstanding performance by eliminating waste and reducing costs it is the perfect way to excellence and these techniques are not only used in production process. Some of the cost management techniques can be used in service sector also such as TQS (Total Quality Services).

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