A Study on Increase in Productivity of Foams Bed Products in Foams India Bed Product, Chennai

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ABSTRACT
The title of the project report is A Study On increase in productivity of foams bed products. The project work has been carried out at foams India bed product, thirumazhisai Chennai for the potential fulfillment of the MBA program under Anna University, Chennai. The objective of the study is to assess about the Increase in productivity, in Foams India bed product, To Standard Costing market demand by considering last 6 months demand and supply for in Foams India bed product, to analyze the variance analysis. Associated with the production, to analyse the current productivity of bed products in Foams India bed product, to determine the measure of System effectiveness in Foams India bed product. The research design used in this study is Analytical research design. The primary data was collected as conversation with the core team members as well as operational line manager. Secondary data was collected through flow diagrams, company profile. The collected data has been edited, classified and tabulated. The statistical tool used in the study is Standard costing, Variance Analysis.

Keywords: Increase in Productivity

1 Introduction
No aspect of industrial production has received so much attention in recent times as productivity which has become a burning topic of the day. The solution of a number of problems depends upon the necessity of increasing the output in agriculture, industry and service. It is all more necessary of effectively carry out an intensive drive for raising the level of productivity so that the utilization of resources is optimized in a given economic setup. The history of the concept of productivity can be traced back to the year 1776 when it was first applied by an economist, Quensy. But it was the world war second which necessitated the concept of modern productivity management. The necessity of this concept became more imperative on account of rapid and quick industrialization of under developed countries. Today, in fact productivity is referred as ‘key to prosperity ‘and is used as a synonym for progress of the economy. In a modern industry, diverse resources like raw materials, labour, capital, plant and machinery and management are employed. Each of these resources is called input and helps to achieve the final production or output. Productivity represents the relationship that exists between the output and input or in other words it is the amount of output per unit of input. Productivity aims at the maximization of output by the most efficient
and economic use of input and minimization of waste, if more output can be obtained by utilising lesser resources, there is an increase in productivity. On the other hand, if an increase in production is affected by a corresponding increase in quantum of input information there is no increase in productivity.

2 Definitions

- Productivity means the balance between all factors of production that will give the greatest output for the smallest efforts
- Productivity is the ratio between the production of a given commodity measured by volume and one or more of the corresponding input factors also measured by volume
- Productivity is the ratio of all available goods and service to the potential resources of the group, community or the country
- Higher productivity means more efficient use of all type of resources in employment, using them to produce as many goods and services as possible, for the kind and quality most wanted by customers, at lower and lower costs. It is essence, a multipronged, mass attack on waste on the one hand and optimum use of all instruments and tools of production on the other. —The remarks of shri. P.Y Thatte deserve special mention.‖ Productivity, in its ultimate analysis does not simply means higher production divorced from cost, but effective production at ultimate cost to attain which the management of any industry are constantly posed with two question,
—How to increase productivity so as to reduce cost?
—How to reduce cost so as to increase productivity?

From the above definitions, it can be concluded that productivity aims at the maximization of output by planned and most economic use of input, elimination of wastage and reduction of cost. It refers to the relationship of output and input, and can be expressed as:

\[ P = \frac{O}{I} \]

Where, \( P \) = Productivity

\( O \) = Output

\( I \) = Input

3 Objective of the Study

- To analyze the demand of Foams Bed Products in Foams India Pvt. Ltd.
- To understand the gap between demand and supply of foams bed product.
- To analyze the cost variance associated with the production.
- To suggest ways to increase the productivity of bed and bed products in Foams India
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Pvt. Ltd.

4 Need of the Study

The scope of the research is to study the importance of the production planning and its control with special reference to Foams India bed product Thirumazhisai Chennai. The study helps to understand the function of production planning and to forecast market demand of the company.

- This study focuses on standard costing and demand of Foams India bed product
- It focuses on availability of Equipment and Human Resources.

5 Sources of Data Collection

Data can be classified into primary data and secondary data. Primary data are fresh data collected through observation and the secondary data are collected from the websites, company reports, journals, magazines.

- Primary data:
  - The primary data are collected through observation.
- Secondary data:
  - The secondary data are collected from text books, company reports and company websites

6 Research Design

It is a frame work which provides guidelines for the research process. The research design was analytical in nature. Analytical research is a specific type of research that involves critical thinking skills and evaluation of facts and information related to the research being conducted.

6.1 Tools for Analysis

The tool used for analysis is,

- Standard costing.
- Variance analysis.

7 Data Analysis

Demand of Bed Pillows and Cushion in Foams India Bed Products

Table 1: shows the demand of bed pillows and cushions from September 2022 to April 2023

<table>
<thead>
<tr>
<th>Month</th>
<th>Total Bed</th>
<th>Total Pillows</th>
<th>Total cushion</th>
<th>Total Output</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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7.1 Standard Costing

Standard costing is a specialized technique of costing under which standard costs are pre-determined actual costs are compared with such pre-determined costs, the variations Between the two are noted and analysed as to their causes so that corrective measures may take to control the factors leading to unfavourable variations. It serves as an effective tool in the hands of the management for planning, coordination and control of various activities of the business

Average output produced per day for different time period:

Table no 2: shows the average output produced per day for different time period.
### 7.2 Setting of Standard:

The standard cost is determined for each and every element of cost distinctly. The elements can be divided under the following categories:

- Direct materials,
- Direct labour,
- Overheads

### 7.3 Standards for Direct Material Cost:

The cost of direct material is found out by multiplying the quantity of material to be purchased with the rate or price at which they are available. Hence two standards will have to be fixed up:

**Quantity Standards:**

Quantity standard are calculated by taking average of quantity used for different period.

\[
\text{Quantity Standards} = \frac{(548 + 518 + 493 + 507 + 521 + 533)}{6}
\]

\[= \frac{3,130}{6}\]

\[= 520 \text{ per day}\]

Price Standard = Rs 18,000

Standard for Direct material cost = Quantity standards x Price standards

= 520 x 18000

= Rs 93,60,000

**Standard for Direct Labour cost:**

The cost of direct labour is based on the time the worker takes in completing a particular job
or product and rate at which he is paid. Hence, in order to determine the cost of direct labour, the following two standards will have to be fixed,

**Time standards:**

For 1 hr. workers can able to dispatch 520 of bed from packing section Therefore the time required for dispatching the standard quantity of 520 per day is 43hrs

Rate standards = Rs 315.00

Standard for Direct labour cost = Time standards x Rate standards

\[
= 43 \times 315 \\
= Rs \ 13545 \ per \ hr
\]

Standards for Direct labour cost = Rs \ 13545 \ per \ hr.

**Standards for overhead cost:**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Cost per Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler</td>
<td>320.00</td>
</tr>
<tr>
<td>Packing material</td>
<td>308.00</td>
</tr>
<tr>
<td>Maintenance</td>
<td>340.00</td>
</tr>
<tr>
<td>Mechanical maintenance</td>
<td>298.00</td>
</tr>
<tr>
<td>Chemical</td>
<td>328.00</td>
</tr>
<tr>
<td>Electricity</td>
<td>328.00</td>
</tr>
<tr>
<td>Diesel</td>
<td>318.00</td>
</tr>
<tr>
<td>Water</td>
<td>300.00</td>
</tr>
<tr>
<td>Raw latex</td>
<td>506.00</td>
</tr>
<tr>
<td>Labour wages</td>
<td>315.00</td>
</tr>
<tr>
<td>Transport</td>
<td>307.00</td>
</tr>
<tr>
<td>Consumable</td>
<td>312.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3950.00</strong></td>
</tr>
</tbody>
</table>

Standard for overhead cost = 3950 x 520

\[
= 20, 54,000
\]

**Variance Analysis**

**Direct material cost variance (DMCV)**

Month: November 2022.

DMCV = (Standard Price x standard quantity) - (Actual Price x Actual quantity)
Month: December 2022.
DMCV = (Standard Price x standard quantity) - (Actual Price x Actual quantity)
= (506 x 520) - (506 x 548)
= Rs 14168 (Adverse)

DMCV Rs = 14168 (Adverse)

Month: January 2023.
DMCV = (Standard Price x standard quantity) - (Actual Price x Actual quantity)
= (506 x 520) - (506 x 518)
= Rs 1012 (Adverse)

DMCV Rs = 1012 (Adverse)

Month: February 2023.
DMCV = (Standard price x standard quantity) - (Actual price x Actual quantity)
= (506 x 520) - (506 x 507)
= Rs 6578 (Favourable)

DMCV Rs = 6578 (Favourable)

Month: March 2023.
DMCV = (Standard price x standard quantity) - (Actual price x Actual quantity)
= (506 x 520) - (506 x 521)
= Rs 506 (Adverse)

DMCV Rs = 506 (Adverse)

Month: April 2023.
DMCV = (Standard price x standard quantity) - (Actual price x Actual quantity)
= (506 x 520) - (506 x 533)
= Rs 6578 (Adverse)

DMCV Rs = 6578 (Adverse)

DMCV = 14168(A) + 1012(A) + 13662(F) + 6578(F) + 506(A) + 6578(A)
= Rs 2024 (Favourable)
8 Conclusion

Productivity has become an attitude of mind, a movement to find better, quicker, easier and cheaper ways of performing a job, manufacturing a product or providing a service. To a nation, productivity implies increased national income, higher standard of living and the effective use of resources. To the industry, productivity implies the best use in available resources, minimum cost, highest profit, the expansion of market and growth of industry. To the workers, productivity means higher wages, better working conditions, better health, security of job, and reduced working hours, etc. To the consumers, productivity ensures better quality goods at reduced prices. We can conclude that everyone, the owner, the consumer and the nation, as a whole is benefited from the increased productivity. The important benefits of increased productivity are listed below;

- Increased productivity implies better utilization of available resources. It increases the volume of production and reduces the cost.
- Productivity ensures better quality goods at required prices, thus it increases sales and profits.
- Productivity provides for better working conditions, health, and safety and welfare measures for the workers.
- It improves morale of workers

References