



Empirical Review of Cost Management System by Instrumentation Company: A Case Study.

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Abstract: In this study, the researcher examined ABCD Limited's working Environment. Researchers aim to find how the instrumentation company's working process and how its cost is calculated. The Different procedures are applied for the different products. So the various process flow chart is used at one time. The researcher also studied Cost Management, Strategic Cost Management (SCM), Process flow, Cost Flow and the Cost Sheet of the company.

Keyword: Cost Management. Strategic Cost Management, Instrumentation, Process Flow

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1. Introduction:

Cost Management can be described as cost management identifying, collecting, measuring, classified and reporting information that is useful to managers and other internal users in cost ascertainment, planning, controlling, and decision-making. Cost Management aims to produce and provide information to internal users and personnel working in the Firm.

In this study, researcher examined the process flow, strategic cost management, cost flow and cost sheet. The researcher studied the process flow, how the process is work? Need of the process flow, how does the process flow work? And made the strategy to apply the procedure, in this strategic Cost Management (SCM) is used and helpful to the company and how SCM help the company to reduce the cost and improve the profit.

1.1 Introduction of Instrumentation Industry: Instrumentation can be defined as “the arts and science of measurement and control.” Instrumentations aim is to obtain maximum production (Quality Products) from industry with minimum use of raw material.

Instrumentation is a branch of Physics that deals with measuring and controlling variables in a process industry, the instruments related to the process variables and its calibration. (Kurfess, T., 2005) Instrumentation can be defined as the application of instruments, in the form of system or devices, to accomplish some specific objective in terms of measurement or control, or both.

1.2 Introduction of a company for case study including process Flow: ABCD limited is the instrumentation company. In this company, many projects are run at the same time. A different processes for different products. In this study researcher studied the process flow; how the process is done. Various methods for different products.

The Company is using process flow to understand the procedure for the employees to easily understand how the work process went through. Various Strategic Cost Management (SCM) methods are used to control cost. It helps the company in cost reduction and decision-making. Here, is the details about process flow and example of process flow.

1.2.1 Process Flow: Process Flow provide a visual overview or workflow diagram of all the task and relationship involved in a process.

1.2.2 Purpose of Process Flow:

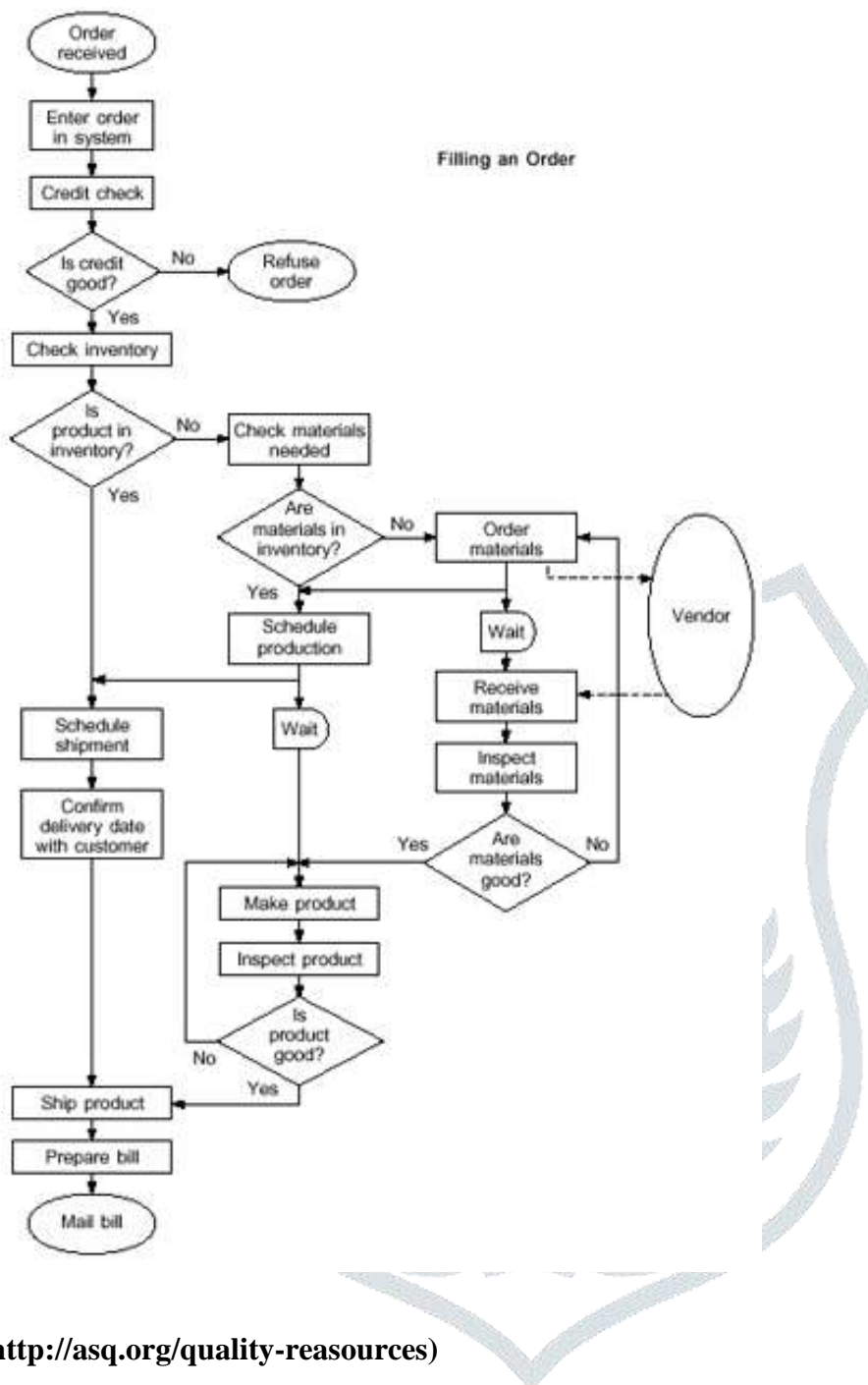
- i. To evidence a process for improved understanding, quality control & training of employees.
- ii. To regulate a process for desirable ability and repeatability.
- iii. To Study a process for productivity and improvement. It helps to show unwanted steps, barriers and other carelessness.
- iv. To model a better process or create a brand-new process.
- v. To communicate and collaborate with diagrams that speak to a various roles in the firm or outside of it.

1.2.3 Some Basic Symbols of Flow Chart:



(Source: <http://www.moresteam.com/toolbox/process-flow-chart.cfm>)

1.2.4 Example of Process Flow:



(Source: <http://asq.org/quality-reasources>)

2. Introduction of Strategic Cost Management Its Need and advantages.

2.1 Definition of Strategic cost Management (SCM):

Strategic Cost Management (SCM) has emerged as a key element to attaining and sustaining, a strategic competitive advantage through long-term anticipation and formation of the cost level, cost structure and cost behaviour pattern for Products, processes and resources. **(Harvath, Brokemper, 1988)**

Strategic Cost Management (SCM) is the process of reducing total costs while improving the strategic position of a business. **(Accountingtools.com)**

According to **(Cooper and Slag Mulder, 1988)** Strategic Cost Management (SCM) is the application of cost management techniques so that they simultaneously improve the strategic position of a firm and reduce costs.

2.2 Theoretical Framework of Strategic Cost management (SCM):

According to Tony Grundy, Strategic cost management began in Europe and The United States. In The United States, John Shank and Vijay Govindrajan were the first to introduce Strategic Cost Management (SCM) in Amos Tuck School of Business Administration at Dartmouth College. At the same time, Strategic Cost Management was developed in the United Kingdom at the Cranfield School of Management. **(Tony, G., 1996)**

Shank & Govindrajan define **(Shank & Govindrajan, 1993)** SCM as the managerial use of Cost Information at Four stages of Strategic Management:

- i. Formulation of Strategies
- ii. Communicating those strategies among all functions of the organisation.
- iii. Developing and carrying out tactics for implementing the suggested.
- iv. Developing and implementing Controls to monitor the Success of Objectives

2.3 Necessity of Strategic Cost Management:

- i. It is cost analysis in a broader context where the strategic element becomes more explicit and formal strengthening the strategic position of the company.
- ii. Cost data is analysed and used strategically to develop alternate measures to gain sustainable competitive advantages.
- iii. SCM gives a clear understanding of the company's cost structure in search of sustainable competitive advantages.
- iv. SCM is the Managerial use of cost information explicitly directed to the four stages of strategic management- Formulation, communication, implementation and control.
- v. SCM helps in the overall recognition of cost relationships among the activities in the value chain and the process of managing these relationships to the company's competitive advantage.

3. Cost Flow and Cost Sheet:

3.1 Cost Flow: The flow of a cost is the Way taken by costs as they move through a business. The Concept of cost flow is mostly relevant to a manufacturing firm and less applicable to the Service firm, where costs are first obtained when raw materials are purchased. Then Flow of cost moves to work-in-progress inventory, production process started with labour, machining and overhead costs are added to the raw materials. Once the production process is complete, the costs move to the finished goods inventory classification, where goods are stored and preceding for sale.



3.1.1 Various Methods of Cost Flow:

- i. First In First Out (FIFO): In FIFO, it is assumed that the cost of inventory purchased. First will be recognised first.
- ii. Last In First Out (LIFO): The inventory valuation method that is opposite of FIFO its LIFO. Where the last item purchased or acquired is the first item out.
- iii. Weighted Average Cost (WAC): In accounting, the Weighted Average Cost (WAC) method of inventory valuation uses a weighted average to determine the amount that goes into COGS and inventory.
- iv. Specific Identification: The specific identification inventory valuation method is a system for tracking every single item in an inventory individually from the time it enters the inventory until the time it leaves it.

3.2 COST SHEET:

The Charter Institute of Management Accountants, London (CIMA) defines a cost sheet as “a document which provides for the assembly of the detailed cost of a cost centre or cost unit” The cost sheet is prepared with separate columns, one for the cost per unit and the order for the total cost. **(economicdiscussion.net, 2022)**

The Cost sheets are prepared for the use of the management and consequently, they must include all the essential details which will assist the management in checking the efficiency of production. (Weldon, H.,)

3.2.1 Advantages of Cost Sheet:

The Cost sheet plays an important role in the firm. It helps the finance department to understand the actual situation of the firm. It is also helpful to other departments in many ways. The main advantages of cost sheets are as under:

- It provides the total cost figure as well as the cost per unit in production.
- It helps in cost Comparison.
- It facilitates are preparation of cost estimates required for submitting tenders.
- It provides sufficient helps in arriving at the figure of the selling price.
- It Facilitates cost Control by disclosing operational efficiency.

3.3 Proposed Format of ABCD Ltd.

No	Particular	Total Cost (Rs)	Cost per Unit (Rs)
1.	Direct Material Consumed:		
	Opening Stock of Raw Material	xxx	
	Add: addition/ purchase	xxx	
	Less: Closing stock of Raw Materials	xxx	
	Cost of Raw Material Consumed	xxx	
2.	Direct Employee (Labour) Cost	xxx	
3.	Direct Expenses	xxx	
4.	Prime Cost (1+2+3)	xxx	xxx
5.	Add: Works or Factory Costs	xxx	
6.	Gross works (4+5)	xxx	xxx
7.	Add: opening work in progress	xxx	
8.	Less: Closing work in progress	xxx	
9.	Works/ Factory Overheads (6+7+8)	xxx	xxx
10.	Add: Quality Control Cost	xxx	
11.	Add: Research and Development Cost	xxx	
12.	Add: Administrative overhead (relating to production Activity)	xxx	
13.	Less: Creditors for Recoveries/Scrap/ by-products/ Misc. Income	xxx	
14.	Add: Packing Cost (primary)	xxx	
15.	Cost of Production (9+10+11+12+13+14)	xxx	xxx
16.	Add: Opening Stock of finished Stock	xxx	
17.	Less: Closing Stock of finished stock	xxx	
18.	Cost of Goods Sold (15+16+17)	xxx	xxx
19	Add: administrative overheads (General)	xxx	
20	Add: Marketing Overheads:	xxx	
	Selling Overheads	xxx	
	Distribution Overheads	xxx	
21.	Cost of Sales (18+19+20)	xxx	xxx

3.4 Hypothetical Cost Sheet of ABCD Limited:

(Table 1: Cost Sheet)

No	Particular	Total Cost (Rs)	Cost per Unit (Rs)
1.	Raw Materials	1,80,000	45.00
2.	Direct Wages	90,000	22.50
3.	Prime Cost	2,70,000	67.50
4.	Add: Factory overhead	80,000	20.00
5.	Cost of Production	3,50,000	87.50
6.	Less: Closing Stock of finished stock	35,000	-----

7.	Cost of Goods Sold	3,15,000	87.50
8.	Add: Administrative Overheads	35,000	9.72
9.	Add: Selling Overheads	18,000	5.00
10.	Cost of Sales (Total Cost)	3,68,000	102.50

3.4.1 Hypothetical Statement of Profit (Table: 2)

No.	Particular	Total Amount (Rs)
1.	Sales Revenue (3600 Units* 125)	4,50,000
2.	Less: Cost of Sales	,3,68,000
3.	Profit	82,000

4. CONCLUSION:

In this study, researcher studied the firm's working situation and believed that with a help of a proper flow chart it is easy to understand and implement the process. It helps to implement the process. It helps to a higher authority and lowers authority to understand their work easily Strategic Cost management (SCM) help to implement new strategy & formulation. Every process has their different cost. Different cost flow methods are used for inventory control. There is no specific method in favour of cost flow. The Cost sheet represents the cost of the procedure and the total cost of the product.

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