Strategic Cost Management: Some Reflections from Experience

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< EXECUTIVE SUMMARY >

◆ The term Strategic Cost Management has not been formally defined. It is study of the interface between business strategy and cost system. The Strategic Cost Management rests on the premise that corporate strategy influences cost systems and is influenced by cost systems. The Strategic Cost Management differs from traditional management accounting in the way that the latter does not explicitly consider the role of strategy in designing cost systems, nor the effect of following a certain cost systems on a company's strategy. The article below describes the author's experience with the adoption by selected Indian companies the concept of Strategic Cost Management.

This paper is an attempt to describe the author's experience with the adoption by selected Indian companies of what has come to be known as Strategic Cost Management. The choice of examples of companies and situations does not follow any scientific scheme of sampling. They simply happen to be among those the author is personally familiar with.

STRATEGIC COST MANAGEMENT DEFINED

The term Strategic Cost Management (hereafter SCM) has not been formally defined. For the purpose of this paper, it is defined as the study of the interface between business strategy and cost system. Management accounting systems consist of both historical cost accounting systems as well as future-oriented cost management systems. SCM rests on the premise that corporate strategy influences cost systems and is influenced by cost systems. SCM differs from traditional management accounting in that the latter does not explicitly consider the role of strategy in designing cost systems, nor the effect of following a certain cost system on a company's strategy. SCM integrates strategy and cost systems in a meaningful way.

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STATE OF COST SYSTEMS IN INDIAN COMPANIES

Kaplan and Cooper (1998) refer to four stages in the evolution of cost systems of companies. These are as follows:

Stage I: Cost systems are not even adequate for routine, periodic financial reporting.

Stage II: Cost and performance information are available only from the system used to prepare periodic financial reports.

Stage III: Companies have customised, standalone cost systems separate from their financial system.

Stage IV: Cost information and performance information are integrated into organizational reporting.

An overview of the current state of cost systems in India is presented below in order to facilitate an assessment of the stage at which Indian companies find themselves.

Inadequate capturing of direct material costs Accounting for the issuance of materials to jobs is frequently improper. Issues are booked to incorrect jobs, are not correctly shown in inventory accounts and are not priced correctly in cost records. As a result, product costs are incorrectly computed.

Excessive emphasis on labour costs

Companies spend a disproportionate amount of time and effort in tracing labour costs to products despite the fact that the share of labour costs in cost of production has been going down for over a decade. The excessive emphasis on labour costs distorts management's orientation to cost control. For example, a well-known engineering firm requires a detailed analysis of idle time and specifies 32 reasons for idle time. The result is that labour time records are manipulated to avoid management's attention being drawn to idle time. Besides, the degree of accuracy of the idle time categorisation is likely to be very low.

Functional classification of overhead costs Overhead costs are classified by organisational functions such as production, marketing, distribution, and administration. This classification is not of much use in either product costing or cost control because classification of costs by departments is too aggregate. Tracing overhead costs to cost centres is not very common.

Simplistic allocation bases

The methods of allocating overhead costs to products are too simple. Traditional bases such as machine hours and labour hours are used without much thought being given to their suitability. Combinations of allocation bases are rarely used.

Inadequate attention to service departments and service organisations

Overhead expenses of service departments such as marketing, purchasing, distribution and general administration are among the most rapidly rising items in recent years. There are many more marketing researchers, product managers, purchase managers, personnel managers, development engineers, and finance executives today than, say, about five years ago. Yet, the impact of these service personnel and their departments on the cost structure of a business is generally not analysed. Furthermore, cost systems do not exist in most organisations providing services. Companies in advertising, software, banking and insurance need cost systems as much as manufacturing firms do.

Limited familiarity of accountants with operations With rare exceptions, accountants seem to have limited familiarity with the actual business operations of their companies. It is essential that the accountant knows her company's value drivers. Lack of knowledge of suppliers, products, customers, markets, technology and employees on the part of the accountant will come in the way of designing good cost systems.

Narrow role of cost accounting Inventory valuation for the purpose of financial reporting is considered the major purpose of cost accounting in most organisations. As a results cost accounting has been assigned a narrow role. Cost information is not used much for making major business decisions.

STRATEGIC COST MANAGEMENT EXPERIENCES IN INDIAN COMPANIES

The problems in cost systems and the considerable scope for innovative use of cost data are illustrated here with select examples from the author's first-hand experience in working with a number of companies engaged in a wide variety of industries. The names of the companies and some data have been changed to keep their identities anonymous.

Company A

The company is one of the leading makers of wristwatches. It markets about 800 models of watches from a possible range of over 1,500 watches. The models can be categorised into three groups: utility, mid-segment, and upper-end. Several of the moving parts are common to the three groups, but there are significant differences in the appearance parts. The company makes many of the parts, but simple parts like the case are outsourced.

The company follows a conventional, volume-based cost system. As a result, all overhead is distributed among the products based on a machine-hour rate worked out for individual machines or for groups of similar machines. There are significant differences in the sales and production levels of the various models. Some models in the utility group are sold in volumes close to about 100,000 units per year, whereas the models in the upper-end group rarely reach volumes of 1,000. Furthermore, the company's marketing and administration overhead expenses are in the range of 30 to 40 percent of sales value.

A critical look at Company A's cost information revealed the following:

- Many high volume, low value models were making more profits than the company thought (some of them were even thought to be making losses) and low volume, high value models were incurring losses contrary to the belief that they were profitable.
- The models in the upper-end group required significant additional manufacturing costs in material procurement, processing, inspection, packaging and handling. For example, gold plating is a costly process with gold loss running up to 20 percent. Furthermore, these models called for substantially more marketing efforts in the form of promotion, display and dealer-related work. Again, models in the upper-end group were given more attention in warranty repairs in order to maintain the company's image. This resulted in disproportionate expenses on parts as well as labour in servicing such models.

Company B

The company manufactures air conditioners and has a reputation for quality and service. An interesting aspect of the company's cost system is that only direct material costs are captured. An examination of the cost records revealed that even the material costs are not captured accurately. For example, there are major problems in accounting for materials issued to sub- contractors for processing. Labour costs and manufacturing overhead are distributed across- the-board to products based on a percentage of material costs. A re-computation of costs revealed a number of deficiencies in the existing system.

- Models with a high material cost content were not as profitable as they seemed. For example, one of the models that used a number of imported parts actually lost money for the company when the Indian rupee depreciated significantly in early 1998.
- Models with a high labour cost content were relatively simple to make and were in fact the ones that earned most for the company.
- When sales, distribution and administration expenses were distributed to products, the distortion in costs was even more glaring.

Company C

The company makes printers and selected computer peripherals. The company's cost system is very simple because it traces direct material costs to products. Labour costs and manufacturing overhead are deducted in lump sum from the total "contribution margin". The company makes a variety of printers ranging from dot matrix to laser that differ significantly in volume, manufacturing complexity and sales effort. The following were observed from the cost data:

- Low volume products were found to be less profitable.
- Products that had a large number of parts required considerably more manufacturing effort and called for additional inspection resources. These products were not as profitable as they seemed.
- The sales effort needed to sell the expensive range such as laser printers was not captured by the product "contribution margin".

Company D

The company makes shaving products including shaving blades. The company's cost system is traditional in that all manufacturing overhead is distributed based on direct labour cost. Among others, the company makes twin-blade cartridges and double-edged blades. Twin-blade cartridges consist of a set of two blades placed in a plastic case. Double-edged blades are single pieces that call for lesser manufacturing effort. A study of the company's cost system revealed the following:

- The stainless steel that is used in both twin-blades as well as double-edged blades is imported in coils. Purchase orders are placed once a year for quarterly deliveries. No other effort is needed as the suppliers are dependable. For twin-blades, ABS plastic is purchased from domestic suppliers who need constant follow-up including travel.
- The process of manufacturing double-edged blades is fairly straightforward. The stainless coil is unwound and is put through a number of heat treatment operations. Some of these operations are common to twin-blades and double-edged blades.
- The process of making twin-blades is not as simple. A pair of stainless steel blades is placed in a plastic case. The plastic cases are produced by the injection moulding process. The rejections in this process are high because the quality of ABS plastic bought by the company varies from supplier to supplier and a mix of the various purchase lots is used in manufacturing. The operations are more machine-intensive.
- As a result, the real cost of making twin-blade cards was found to be higher than reported by the cost system. However, based on the reported cost the company had accepted export orders for bulk supplies for sales in the United States and in some Latin American countries and lost a lot of money.

Company E

The company produces earthmoving equipment for use in construction, mining and roadwork. The company distributed manufacturing overhead based on direct labour cost as well as machine hours. An activity analysis of the company revealed that the company spent almost Rs 10,000 per lot inspected. The expense did not add any value to the company's products because inspection did not change anything. The information needed for the study was not available from any single account head. It had to be collected from several cost centre codes such as those for the purchasing, inspection and goods receiving departments and from expense account heads such as salaries and wages and consumables. The exercise of identifying non-value added activities resulted in sizeable savings to the company because the company decided to accept receipts from specified suppliers on self-certification without inward inspection and in return their bills were processed on priority. This interested many other suppliers who were also enthused by the incentive.

Company F

The company is a leading manufacturer of computers and sells them under its own brand names. The company's sales contracts for computers provided for supply of certain pre-loaded software and post-sales maintenance. The computers were priced low because of intense competition. The company's profits came mainly from post-sales maintenance. For a long time, customers bought the computers, software and maintenance services from the company. However, over the years, the competition in software sales and maintenance services increased. The ability of customers to buy the required software overseas at lower prices made it possible for them to redefine their contracts with the company. Also, many independent parties began to provide maintenance services at competitive rates. The company found that its composite contracts were not profitable because customers bought computers from the company but procured software from vendors and entered into third-party maintenance contracts. Consequently, the company was forced to unbundle its services and reset the prices.

APPLICATIONS OF STRATEGIC COST MANAGEMENT

SCM has great scope for application in Indian companies. What has been attempted by companies so far is minimal. The following are the potential applications of ABC with promise of significant benefits to the organisation.

Product Costing

Given the state of the cost systems, product cost information available in many companies is deficient. It is important to capture the activities that are attributable to each product or to major product groups and determine if the pricing and other policies of the company are appropriate. In all the cases studied by the author, product costs have turned out to be incorrect.

Make-or-buy Decisions

Make-or-buy decisions should be made on strategic considerations. Even so, cost considerations are important. For example, the decision to outsource a component would result in a number of activities causing additional overhead. A sophisticated understanding of costs would enable managers to outsource only parts that are not strategically significant or are easy for outsiders to manufacture. A large engineering company found that the use of a combined machine-hour rate for all welding operations resulted in outsourcing simple operations. This happened because the combined rate was based on the rates for simple machines as well as robotic machines. Since the operations performed on simple machines appeared to be costly, they were outsourced leading to capacity wastage in the plant.

Marketing Channel Decisions

Marketing channel decisions could benefit from the SCM approach. The decision to sell to specific customers through specific channels is one possibility. For example, a company that makes industrial motors found that it was less expensive to service smaller customers through sales offices located in smaller cities. Thus, orders for 10 pieces or less were routed to its Pune office and larger orders were sent to its Mumbai office. The Pune office would complete all the documentation and send the papers to the customer. Customers who insisted on dealing with the Mumbai office were informed that a discount would apply if they agreed to have their orders transferred to the Pune office. Most customers agreed for the shifting because the saving was more than the additional expense involved.

Product Design

According to several studies, most costs are frozen at the design stage. Surprisingly, designers do not have cost information and therefore are likely to come up with

designs that may not be cost-efficient. A few companies have started forming teams consisting of designers, manufacturing engineers, cost accountants and marketing managers as part of their new product development efforts. However, most companies do not pay attention to product design with the result that product costs are high and frequent design changes are necessary.

Activity Analysis

Increasingly, it is becoming important to identify activities that add cost but not value to the customer. Such activities are called non-valued activities and must be eliminated if the business is to remain competitive. Non-value added activities include inspection, internal movements and waiting for the next operation. Non-value added activities result in unnecessary expense and increase manufacturing or service lead time. As a result, a business that has a large number of non-value added activities would be unable to introduce new products rapidly and in time and within acceptable cost limits. A rough estimate by the author suggests that value-added time for Indian companies is unlikely to exceed 10 per-cent. The case of a large Indian company is used to illustrate value-added and non-value added activities.

Case Study on Value-added/ Non-Value added Activities[1]

The Rise of Competition

PQR Limited produces passenger cars, mini-buses and trucks. It has had a successful history of earnings and dividends for over 30 years. During the l990s, the automobile market in India became highly competitive, as a number of foreign companies entering the industry and established domestic companies like Maruti Udyog further stepped up their cost reduction efforts. Mr. Srinivas, president of PQR, realised that the company had few options left if it wanted to survive. By the late l990s, the company's market share fell to 17 per cent from about 36 per cent in the 1980s.

Fighting Back is Not Going to be Easy

In his meetings with the company's vice presidents, Mr. Srinivas outlined the problem. He produced numbers to show that PQR spends at least 20 per cent more to make a car than what is considered reasonable and competitive in the industry. The position was similar for mini- buses and trucks, he said. Everyone understood that it was not possible to make the business more competitive without accepting some pain. A few saw the management's case as a prelude to a large work force reduction and this did not help matters. Nevertheless, the majority agreed that significant cost savings were necessary in order to stay in the business. A challenge before the management was how to achieve competitiveness at a minimum cost in human relations terms. The vice presidents agreed to submit proposals in a month on what they could do by way of cost reduction.

Conducting Activity Analysis

Mr. Sudhir Gupta, Vice President in charge of manufacturing, started thinking of some possibilities. It was clear to him that a major portion of the planned cost savings would have to come from his department. He had all along been aware of the scope for improvement in a number of areas that he has worked in, but had to deal with resistance from managers and unions. Mr. Gupta thought that this was the time to push his ideas and achieve some early results. Sometime back, he attended a course on activity analysis that talked about classifying activities into value added and non-value added categories. At the time, the idea appealed to him, but he thought it would be difficult to operationalise it. He decided to carry out an activity analysis for a couple of areas under his responsibility.

Collecting Activity Data

Mr. Gupta asked the company's production manager and the financial controller for a sample of recently completed jobs in order to analyse the time taken at various stages. The following data refers to a typical job:

	Job 492	
	Activity	**Hours**
1.	Metal cutting	6
2.	Surface finishing	14
3.	Heat treatment	23

' This case is based on a real company, but the name has been changed to preserve the company's anonymity, at the company's request.

	Activity	Hours
4.	Machining	8
5.	Painting _	5
6.	Packing	3
7.	Waiting for inward inspection	9
8.	Waiting for in-process inspection _	12
9.	Waiting at intermediate stores	42
10.	Waiting at despatch bay	11
11.	Inward inspection	8
12.	In-process inspection	14
13.	Final inspection	5
14.	Movement from heat treatment plant to intermediate stores	3
15.	Movement from intermediate stores to machine shop	2
16.	Movement to inspection bay	2
17.	Movement to painting shop	
18.	Movement to despatch bay	5
	Total time taken	175

Analysing Activity Data

Mr. Gupta recollected a statement by one of the speakers at the course: "Activity analysis is a cruel exercise. We should label every activity as either value added or non-value added. An activity that the customer would not be willing to pay for is non-value-added. Applying this definition, the only value added activities in a manufacturing organisation are those that relate to performing a process, because processing materials (e.g., shaping, heating, turning, painting, etc.) is what customers pay you to do. If we do other things, clearly you cannot expect your customer to pay." Mr. Gupta noticed the following equations in the course material.

Total activities = Value added activities + Non-value added activities

Value added activities = Processing activities

Non-value added activities = Waiting (for parts, inspection, etc.) + Inspection + Movement

Armed with these ideas, the team consisting of Mr. Gupta, the production manager, and the financial controller classified Activities 1 to 6 as value added and Activities 7 to 16 as non- value added. The following is his tabulation of the activities and their classification:

Job 492: Value added Activities: Processing

	Activity	Hours
1.	Metal cutting	6
2.	Surface finishing	14
3.	Heat treatment	23
4.	Machining	8
5.	Painting	5
6.	Packing	3
	Total value added time	59

Job 492: Non-value added Activities: Waiting

	Activity	Hours
7	Waiting for inward inspection	9
8.	Waiting for in-process inspection	12
9.	Waiting at intermediate stores	42
10.	Waiting at despatch bay	11
	Total time taken in waiting	74

Job 492: Non-value added Activities: Inspection

	Activity	Hours
11.	Inward inspection	8
12.	In-process inspection	14
13.	Final inspection	5
	Total time taken in inspection	27

Job 492: Non-value added Activities: Movement

	Activity `	Hours
14.	Movement from heat treatment plant to intermediate stores	3
15.	Movement from intermediate stores to machine shop	2
16.	Movement to inspection bay	2
17.	Movement to painting shop	3
18.	Movement to despatch bay	5
	Total time taken in movement	15

Mr. Gupta's analysis of the activities for Job 492 is as follows:

Activity Type	Hours	Percentage of Total
Value-added Activities	59	34
Non-value added Activities		
Waititing	74	42
Inspection	27	15
Movement	15	9
	116	66
Total time taken	175	100

From the above table, it is clear that just about a third of the total time and activities related to the job are useful, and the rest has to be drastically reduced, and eventually eliminated if possible, for the firm to compete effectively. Using the company's standard overhead rate of Rs. 100 per hour as a ballpark figure, Mr. Gupta estimated that a sum of Rs. 5,900 had been spent on the job without getting any value. He realised that he has only scratched the surface of the problem of inefficient cost management and a lot more remains to be done.

Senior Management Response

Mr. Gupta presented his key findings to the President Mr. Srinivas and the other Vice Presidents. There was some difficulty in understanding why inspection was considered a non-value added activity, but there was general agreement that waiting and movement should be significantly reduced. Mr. Gupta explained that customers paid for quality, and if quality could be achieved without inspection, they would not object to eliminating inspection altogether.

Mr. Srinivas said that the findings had two major implications: (1) The company was performing unnecessary activities and wasting resources; (2) The job a lot more time to complete than was necessary, thus increasing the lead time for planning delivery to customers and the level of inventory; It was decided that a comprehensive activity analysis for the company's operations would be started in two weeks. The financial controller stated that the company's existing cost system was inadequate for the purposes of the proposed analysis, as cost data were not available activity-wise. So it was decided to review the cost system in light of the requirements of activity analysis.

CONCLUDING REMARKS

This paper has attempted to provide an overview of the status of cost systems in India. The examples from the cost systems of companies underline the extent of the problem. A few success stories that are presented highlight the fact that some companies are trying hard to do better. On the whole, what has been achieved is much less compared to what remains to be done. Currently, Indian companies seem to be between Stage I and Stage II in the Kaplan- Cooper four-stage model. There is a need for managers and academics to come together in order to make SCM a tool for improving competitiveness.

Reference

Robert S. Kaplan and Robin Cooper Cost & Effect: Using Integrated Systems to Drive Profitability and Performance Harvard Business School Press, 1998.

ANNOUNCEMENT

Hosting of information related to panel of auditors for Statutory Audit of Branches of Public Sector Banks for the year 2003-04.

Pursuant to vigorous efforts made by the Professional Development Committee, the Reserve Bank of India has agreed in principle to host on its website the information regarding allotment position for Bank Branch Audits from the year 2003-04, i.e. to which Bank the member/firm's name has been forwarded by RBI and the same is likely to be hosted on the RBI's website as soon as the allotments are finalised by it. Further, the entire Bank Branch Auditors panel for the year 2003-04 has already been hosted on the Institute's website www.icai.org w.e.f. the night of 14th September, 2003 and members/firms can see their empanelment position on the Institute's Website by entering their Unique Code Number.