



Cost and Management Accounting Practices: A Survey of Manufacturing Companies in India*

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Abstract : The purpose of this study is to explore cost and management accounting practices utilized by manufacturing companies operating in AP, India. The sample of the study consists of 61 companies, containing both small and medium-sized enterprises, and large companies.

The major findings of the study are as follows: the most widely used product costing method is job costing; the complexity in production poses as the highest ranking difficulty in product costing; the most widely used three overhead allocation bases are prime costs, units produced, and direct labor cost; pricing decisions is the most important area where costing information is used; overall mean of the ratio of overhead to total cost is 34.15 percent for all industries; and the most important three management accounting practices are budgeting, planning and control, and cost-volume-profit analysis. Furthermore, decreasing profitability, increasing costs and competition, and economic crises are the factors, which increase the perceived importance of cost accounting.

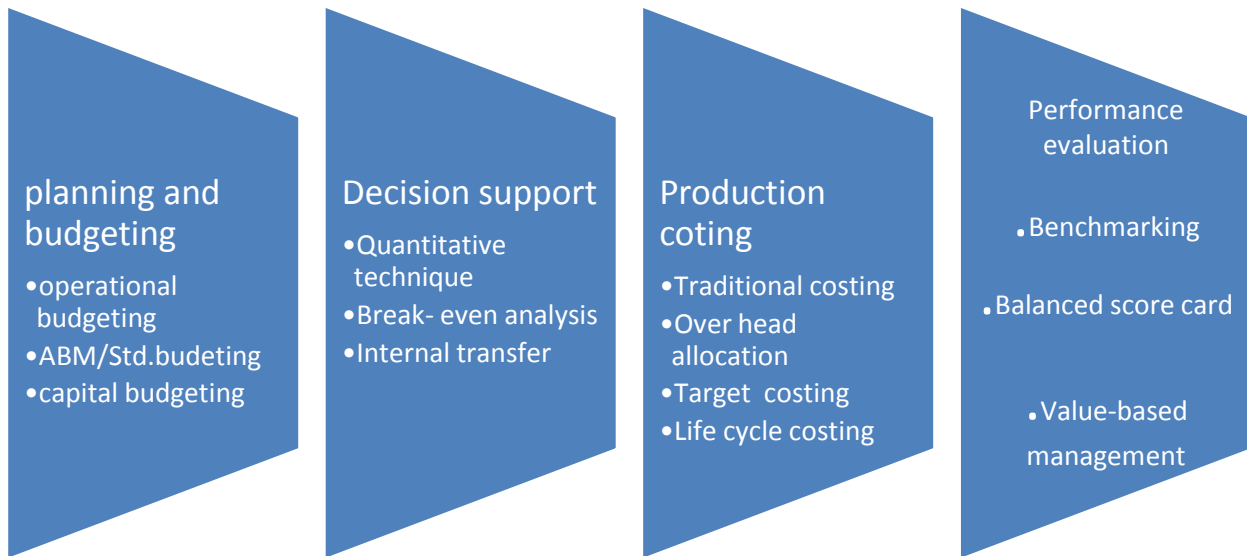
The findings indicate that companies perceive traditional management accounting tools still important. However, new management accounting practices such as strategic planning, and profitability analysis are perceived less important than traditional ones. Therefore, companies need to improve themselves in this aspect.

Keywords: Costing methods, Cost, Management, Accounting, Practices, Manufacturing industry, Small and medium-sized enterprises, A.P.

I. INTRODUCTION

Cost management encompasses both the cost accounting and the management accounting information systems. Cost accounting attempts to satisfy costing objectives for both financial and management accounting. When cost accounting is used to comply with a financial accounting objective, it measures and assigns cost in accordance with GAAP. When used for internal purposes, cost accounting provides cost information about product, customers, services, projects, activities, processes, and other details that may be of interest to management.

Today's cost accountant must understand many functions of a business's value chain, from manufacturing to marketing to distribution to customer service. This need particularly important when the company is involved in international trade. The company's internal accountants have moved beyond the traditional manufacturing cost approach to a more inclusive approach. This newer approach to product costing may take into account the costs of the value chain activities defined by initial design and engineering, manufacturing, distribution, sales, and service. An individual who is well schooled in the various definitions of cost and who understands the shifting definitions of cost from the short run to the long run can be invaluable in determining what information is relevant in decision making.



The importance of cost and management accounting practices has increased more than ever. The reasons for this are the domestic and global competition getting severer by globalization, decreasing profit margins, increasing input prices due the tightening energy sources, economic crises etc. Therefore, companies operating in developing countries have also begun to implement cost and management accounting practices which were first adopted by companies operating in developed countries. Parallel to these developments, research studies which have been conducted initially in developed countries are followed by the studies conducted in developing countries. As a result of industrialization, the need for accounting profession emerged (Aysan, 2006). For this reason, the business managers and management accountants needed in private companies were mostly transferred from State Economic Enterprises (Aysan, 2006). In the last decades, cost and management accounting has gained importance as private sector developed in almost all areas. Large industrial enterprises set up cost and management accounting segments in accounting departments. Furthermore, curricula of faculties of economics and administrative sciences included cost accounting and/or management accounting along with financial accounting.

II. OBJECTIVES OF THE STUDY

The objective of this study is to explore cost and management accounting practices utilized by manufacturing companies operating in A.P., India. The paper is expected to contribute to the existing literature about the subject, especially in developing markets. The paper primarily investigates the following points: product costing methods used by the companies; difficulties faced in product costing; overhead allocation bases used by the companies; usage areas of costing information; the reasons which increase the perceived importance of cost accounting; and management accounting practices usage.

Scope and methodology

The data for this study was obtained by means of a survey questionnaire conducted face-to-face with 61 randomly chosen manufacturing companies in A.P. from various industries. The questionnaire includes multiple choice, open-ended, and Likert scale questions.

Table1. Profile of the respondents

Industry Classification	Frequency	Percent
Textile	22	44
Paper products and publication	8	16
Chemicals and plastics	10	20
Food	6	12
Miscellaneous	4	8
Total	50	100

Product Costing

The respondents were asked to specify the methods they implement in product costing. According to the answers, the most widely used costing method is job costing (21 firms), followed by activity-based costing (15 firms) and process costing (14 firms). In Table 2, which shows the detailed answers to this question, the most significant points are the usage of job costing widely by textile industry, and the usage of activity-based costing largely by chemicals and plastics industry. Possible reason for the usage of job costing by companies is that they manufacture distinct products.

Product costing methods

Industry Classification	Job costing	Process costing	ABC	Not specified	Total
Textile	12	6	4		22
Paper products and publication	4	3	1		8
Chemicals and plastics	2	1	7		10
Food	2	2	2		6

Miscellaneous	1	2	1		4
Total	21	14	15		50

Application of costing information

In another part of the survey, which was adopted from Van Triest and Elshahat (2007)'s study, respondents were asked to score the use and application of costing information on a Likert scale of 1 (never use) to 5 (always use). To evaluate the results, one sample t-test was conducted (Table 4). The results showed that pricing decisions are the most important area where costing information is used at an average of 4.25, followed by customer profitability and activity analysis at 4.10. Performance measurement and make or buy decisions with an average of 4.06 and 3.85 respectively are also important areas where costing information is used. However, costing information is not used in product mix decisions, and adding or deleting products as much as other areas.

Results of one sample t-test for application of costing information (Test value=3.5)

Purpose	Mean	S.D.	t-test
Pricing decisions	4.25	1.141	4.311
Customer profitability	4.1	1.3	4.106
performance measurement	4.06	1.65	3.604
Activity analysis	4.1	1.15	3.591
Make or buy decisions	3.85	0.92	3.456
Product mix decisions	3.4	1.48	0.262
Adding or deleting products	3.29	1.216	0.192

Furthermore, the findings are compared with the results of Van Triest and Elshahat (2007). The comparison indicated that two studies yielded parallel results. As seen in Table 5, first three items with the highest mean are the same. As seen from the table that, the pricing decisions, customer profitability, and performance

measurement are the most prominent areas in which costing information is applied. Among the remaining four application areas, the rank of activity analysis is different. In this study, activity analysis is the fourth in ranking, but it is the last in ranking in Van Triest and Elshahat (2007)'s study.

Comparison of results with the results of Van Triest and Elshahat (2007)

Purpose	Mean	Rank	Mean	Rank
Pricing decisions	4.16	1	4.47	1
Customer profitability	4.07	2	4.2	2
performance measurement	4.04	3	4.13	3
Activity analysis	4.07	4	2.38	7
Make or buy decisions	3.96	5	3.75	4
Product mix decisions	3.55	6	3.3	5
Adding or deleting products	3.46	7	2.93	6

The ratio of overhead cost to total cost

In the questionnaire survey, the ratio of overhead cost to total cost (OC/TC) was also questioned. Overall mean for all industries is 34.15 percent. In addition, One- Way ANOVA analysis (Table 6) was conducted to see the significant differences among industries. The results showed that there is a significant difference among industries (significant at 0.10). Duncan test from Post Hoc tests showed that food industry has the highest OC/TC ratio and is significantly different than paper products and publication, chemicals and plastics, and miscellaneous industries.

The ratio of overhead cost to total cost

ANOVA					
	Sum of squares	df	Mean square	F	Sig.
Between groups	4105.55	4	1036.81	2.06	0.1
Within groups	21204.65	41	510.66		
Total	25112.34	45			
Duncan a, b					
Industry	N	Subset for alpha=.05			
		1	2		
Chemicals & Plastics	8	24.14			
Paper products & publications	6	25.06			
Miscellaneous	5	28.16			
Textile	20	36.07	36.55		
Food	4		58.12		
Sig.		0.331	0.064		

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 7.105..

b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

The reasons for the increased interest in cost accounting

The respondents were asked to score the reasons for the increased interest in cost accounting on a Likert scale of 1 (completely disagree) to 5 (completely agree). A list of reasons was provided for the respondents so that they evaluated each. The results of one-sample t-test in Table 7 showed that decreasing profitability (4.22) is the primary reason which increases the importance of cost accounting. Other reasons which increase the

importance of cost accounting are increasing costs (4.10), increasing domestic and global competition (4.05), and economic crises (4.01). Actually, means of four items above 4.00 indicate that they are all factors considered important for the increased interest in cost accounting. This means profitability of companies is decreasing, possibly due to increasing costs, and increasing domestic and global competition. Economic crises which hit companies from time to time are also important reason for the increased interest in cost accounting.

The reasons for the increased interest in cost accounting (Test value=3.5)

	Mean	S.D.	t-test
Decreasing profitability	4.22	0.561	14.2
Increasing costs	4.1	0.652	11.82
Increasing domestic & global competition	4.05	0.922	6.225
Economic crises	4.01	1.012	5.265

Perceived importance of management accounting practices

Lastly, the respondents were asked to evaluate the perceived importance of management accounting practices that are utilized in the business organizations on a Likert scale of 1 (unimportant) to 5 (very important). The results of one-sample t-test in Table 8 indicated that the most important management accounting practices in decreasing order are budgeting (4.19), planning and control (4.16), cost-volume profit analysis (4.12), target costing (4.11), quality cost reporting (4.08), performance measurement and evaluation (4.05), responsibility accounting (4.02), standard costing and variance analysis (3.60), and strategic planning (3.55). Transfer pricing (3.42) is unique practice that is significantly not important based on test value of 3.42. These findings indicate that companies perceive traditional management accounting

tools still important. For example, budgeting, planning and control, and cost-volume-profit analysis are perceived the most important of all management accounting practices. Quality costing and target costing as new management accounting practices are utilized by the companies. However, strategic planning, and transfer pricing are perceived the least important ones. This may be due to size of the sample firms. Since the sample consists mostly of small and medium-sized enterprises (according to number of employees), some tools may be too sophisticated to be utilized. Szendi and Shum (1999) states that the larger the firm the more sophisticated the management accounting system and the more likely is the firm to utilize sophisticated management accounting techniques and practices. Abdel-Kader and Luther (2008) also proved that large firms adopt more sophisticated management accounting techniques and practices than small firms.

Perceived importance of management accounting practices (Test value=3.5)

	Mean	S.D.	t-test
Budgeting	4.19	0.744	9.912
planning & control	4.16	0.815	7.499
Cost-volume-profit analysis	4.12	0.86	6.765
Target costing	4.11	0.84	5.686
Quality cost reporting	4.08	1.112	3.665
Performance measurement and evaluation	4.05	1.022	3.714
Responsibility accounting	4.02	1.042	3.436
Standard costing and variance analysis	3.6	1.126	2.46
Strategic planning	3.55	1.012	2.062
Transfer pricing	3.42	1.265	0.842

III. SUMMARY AND CONCLUSION

The survey revealed the general cost and management accounting practices of Indian manufacturing companies operating in A.P., India. The findings are expected to

contribute to the existing literature about the subject, especially in developing markets.

The major findings of the study are as follows:

1. The most widely used costing method is job costing,

2. The complexity in production poses as the highest ranking difficulty in product costing,
3. The most widely used overhead allocation bases are prime costs, units produced, and direct labor cost,
4. Pricing decisions is the most important area where costing information is used
5. Overall mean of the ratio of overhead to total cost is 34.15 percent for all industries,
6. The highest overhead cost/total cost ratio belongs to food industry,
7. Decreasing profitability, increasing costs and competition, and economic crises are reasons which increase the importance of cost accounting, and
8. The most important management accounting practices is budgeting.
9. To develop standard costing model to help analyze cost and profitability by product, by customer and by geographic region.
10. To adopt performance measures to track productivity and address cost variances.
11. Designed a phased solution around the company's existing IT infrastructure to track and measure costs and profitability.
12. Developed and led a "change-management" initiative with the company's management and rank-and-file to build understanding and support.
13. The 21 century cost management should find out best solutions and leveraging new technology to reach profitability goal of the organization. It should be emphasized that both the cost management information system and the financial aspects.
14. The accounting system should be designed to provide both total profits and profits for individual products. The key point here is flexibility- the accounting system should be able to supply different data for different purpose.
15. How important is the role of cost management in your organization's overall strategic goals?
16. Generating cost information and analysis is useful for the decision making to improve the processes and getting standards to reduce the costs.
17. Please rank the current priorities facing management accounting in our organization?



18. Over head allocations is biggest factor behind cost distortion
19. The primary factors of cost distortion are Over head allocations, Shared services, Greater product diversity

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