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Management Accounting Practices in Quoted Public Companies in Sri Lanka

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Executive Summary

The objectives of this study are two-fold: i) to identify the types, intensity and coverage of Management Accounting (MA) Practices used by quoted public companies in Sri Lanka, and ii) to examine whether a gap exists between the theory and practice of Management Accounting, and if so, to identify possible causal factors. In this inquiry, the theory of MA encompasses academic literature on the subject while the practice of MA covers the techniques, methods and procedures prescribed in the theory that are adopted and implemented by organizations.

Being a research question that has been examined fairly extensively both in the West and the East, the subject was considered practically relevant, economically significant, and intellectually stimulating from the standpoint of Sri Lanka, a developing country where much attention is being paid to the propagation of MA.

The study covered forty-seven quoted public companies representative of six industry sectors: Beverages, Food, and Tobacco (7), Hotels and Travels (10), Plantations (10), Manufacturing (11), Chemicals and Pharmaceuticals (7), and Construction (2). The systematic random sampling method was used to ensure that companies with varying levels of performance were adequately represented in the sample. A detailed questionnaire was used to gather data from the companies in the sample. The questionnaires were mailed to the respective companies and, after giving them sufficient time for completion, they were personally collected by a member of the research team by calling over at the respective companies (except in the case of a few companies). This enabled the research team to have a brief discussion with the companies and thereby verify the accuracy of the information provided by them.

The conceptualisation framework was developed in two steps. Firstly, based on ten currently used textbooks on MA, a list of thirty-six MA practices was developed. Secondly, each of them was positioned on a two-dimensional grid bounded by Stage of Development of the MA Practice and the Associated Function. In this process the writers were influenced by Nishimura's Four-Stage Development Model of Management Accounting (1995) and the Chartered Institute of Management Accountants' current definition of the scope of MA (2000).

The findings indicate that across the industry sectors MA practices are mostly used for Planning and Control and Internal Control purposes. In respect of other functions such as Strategy Formulation, Decision Making, Efficient Resource Use, and Performance Improvement and Value Enhancement, the use of MA practices is very low, the degree of use varying considerably across as well as within each industry sector.

Further, the stage of advancement of MA practices seems to be predominantly in the Drifting and Traditional Stages. However, in these companies there are glimpses of practices that belong to the Quantitative Stage. In addition, a few companies, mostly multinationals, use practices belonging to the Integrative Stage.

A sector-wise analysis shows that the Beverages, Food and Tobacco Sector and the Chemicals and Pharmaceuticals Sector appear to be using MA Practices to a relatively high degree. However, it should be noted that the distinctly high use of MA practices in the multinational companies in two sectors have vastly contributed to this phenomenon. The Plantations Sector follows in terms of both variety and depth of use of the MA practices. In the Manufacturing Sector and the Hotels Sector, contrary to expectations, the use of MA practices is at a disappointing level. Owing to the small size of the sample from the Construction and Engineering Sector it is difficult to comment conclusively on the use of MA practices in this sector.

The findings of the present study suggest the existence of a considerable gap between MA theory and MA practice. This matches with the findings of some of the studies from the West and the East, that includes two recent Malaysian studies (2002).

Some of the overall trends that are observed are i) Subservience of MA Practices to Financial Accounting Practices; ii) An inherent bias towards traditional modes of Planning and Control; and iii) Lack of Innovation, Learning, and Sharing in the Sri Lankan business environment. While attempting to explain the observed gap through possible contributory factors such as a) Non applicability of costs and market place assumptions, b) Problems of implementation, and c) Impact of other 'extraneous' influences that can override modern MA practices, the writers also searched for the underlying roots of the problem.

The deep-rooted cause for the observed gap could be attributed mainly to hasty attempts to 'transplant' a set of techniques that are foreign and alien without letting the practices evolve gradually according to the needs of the business community. In support of this assumption the writers cite the case of the growth of the MA systems in Japan.

In the evolutionary process of working towards an indigenous system of MA practices, three working areas are highlighted: i) The need for integration of knowledge and skills imparted in related disciplines in the curriculum, as well as integration among different functional disciplines within organizations; ii) Developing MA case studies and associated literature of Sri Lankan origin; and iii) The need to establish a central information system that serves the information needs of the different functional units/divisions in the organization. It is the contention of the writers that these needs have to be fulfilled with commitment and urgency in order to ensure favourable future growth patterns of Management Accounting in Sri Lanka.

1) Introduction

The proposition that a gap exists between the theory and practice of Management Accounting has been examined extensively in the West as well as in this part of the world during the past few decades. In this inquiry the theory of Management Accounting encompasses both conventional wisdom and, in more practical terms, the contents of current textbooks on Management Accounting. In other words, Management Accounting theory is a search for and development of academic literature on the subject. On the other hand, the practice of Management Accounting covers the techniques, methods and procedures prescribed in the theory that are adopted and used by organizations at strategic, functional and operational levels.

There is much evidence from the West to suggest the existence of a distinct gap between the theory and practice of Management Accounting (Coates, et. al. 1983; Finnie and Sizer, 1983; Scapens, et. al. 1983; Gregory and Piper, 1983, Littler and Sweeting, 1989; Coates and Longden, 1989; and Scapens, 1993). More recent evidence from the East too seems to confirm the evidence from the West (Chenhall and Langfield – Smith, 1999; Omar et al. 2002; Kamal, et. al. 2002; and Sharma, 2003).

Attempts have also been made to explain the gap between theory and practice. For instance, Scapens (1993) attributes it to either i) The failure of conventional wisdom to meet the needs of the decision-makers due to the irrelevance or the accompanying high cost of implementing them, or ii) The inability to implement the practices because of the invalid nature of the assumptions underlying competitive markets which form the cornerstone of Management Accounting theory. Understandably, both these explanations raise doubts about the foundations upon which the theory of Management Accounting has been developed, which are far removed from organizational realities.

2) Propagation of Management Accounting in Sri Lanka

In Sri Lanka, the theory of Management Accounting is taught extensively in undergraduate and postgraduate level courses in universities and other higher educational institutions. (Programme Guide: Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, 2001; PIM Programme Calendar, 2002). Further, several foreign-based professional institutions, of which the Chartered Institute of Management Accountants (UK) (CIMA) is a key player, propagate the theory and practice of Management Accounting through their various study programmes. In addition, seminars and workshops are conducted on Management Accounting-related themes at company, industry, and national levels on a regular basis. For instance, the current CIMA student population in Sri Lanka stands at 12,560, with around 2,560 Associate Members and 1,200 Fellow Members serving in a multitude of organizations, mostly medium to large in size, country-wide (CIMA Handbook, 2004). Thus, there is a substantial quantum of on-going activities aimed at promoting Management Accounting practices in Sri Lanka. The associated overall investment in this exercise ought to be substantial.

3) The Problem

Is there a gap between the theory and practice of Management Accounting in Sri Lankan businesses? It is practically relevant, economically significant, and intellectually stimulating to address this question in the context of organizations in Sri Lanka, where much attention is paid to the propagation of Management Accounting practices. More specifically, it is of immense importance to assess the nature, extent of use, and the effectiveness of the Management Accounting practices in organizations in Sri Lanka. The results of this inquiry are likely to influence and guide the future directions of Management Accounting at organizational, educational and policy-making levels in the country. Such an attempt acquires added significance since no serious work has been attempted in this direction except for a few isolated studies of limited scale at undergraduate and postgraduate levels in local universities. Furthermore, the outcome of such a study will add to the corpus of international knowledge on the subject, which will in turn benefit a developing countries.

4) Study Objectives

The study focuses on the quoted public companies sector of Sri Lanka, in relation to which it will:

a) Identify the types, intensity and coverage of Management Accounting practices used in companies, and

b) Examine whether there is a gap between the theory and practice of Management Accounting, and if so, suggest possible causal factors contributing to the observed gap.

5) Scope of Management Accounting

According to the conventional view, Management Accounting comprises that branch of Accounting, which seeks to meet the needs of managers, or in general terms, the needs of users internal to the organization (Scapens, 1993; Drury, 1994; Kaplan 1996). Cost Accounting, which emerged with the meteoric rise of Financial Accounting at the dawn of the 20th century, focused on the separation of costs as cost of sales and closing stock, mainly for the purpose of preparing financial reports for use by parties external to the organization. However, the aftermath of the Second World War saw a distinct shift of focus with a growing awareness that cost information ought to be looked at from a much broader angle, in order, particularly, to suit the different needs of users internal to the organization. However, at present, professional Management Accounting bodies such as CIMA and National Association of Accountants (USA) advocate that Management Accounting should have a wider area of coverage. Thus, CIMA defines Management Accounting in a broader context covering three aspects: the objective, content, and the process. The *objective* specifies that the purpose of Management Accounting is to protect, preserve and increase value so as to deliver that value to the stakeholders of profit and non-profit enterprises, both public and private. The *content* specifies that it is an integral

part of management, involving the identification, generation, presentation, interpretation and use of information for a variety of organizations related functions. The *process* specifies that the means of developing the above information base be through the application of the principles of Accounting and Financial Management (CIMA Official Terminology, 2000).

The IFAC Handbook (1998) on Management Accounting Concepts identifies information as belonging to one of two types, namely, financial and operating, which are essential for controlling the current activities, planning future strategies, optimising the use of resources, measuring and evaluating performance, reducing subjectivity in decision-making and improving internal and external communication. Thus, the scope, according to IFAC, encompasses planning, evaluating and control by the management as well as use of and accountability for the resources.

6) Scope of the Study

a) This study is of an exploratory nature. It concentrates only on the types, intensity and coverage of Management Accounting practices in quoted public companies in Sri Lanka. It does not identify any relationships that may exist among variables such as a given practice, the degree of competition in the industry environment and the performance level.

b) It covers forty-seven quoted public companies selected from among six industry sectors (as classified by the Colombo Stock Exchange). Please refer to Table 1, which also shows the percentage (%) of companies chosen from each sector. The total number of companies in the sample represents 38 % of the total number in the six sectors. The total sample size covers about 20% of the total number of quoted public companies in Sri Lanka.

Table 1: The Sample of Quoted Public Companies

Name of Sector	Nos.	%
Beverages, Food and Tobacco	7	39
Hotels and Travels	10	26
Plantations	10	59
Manufacturing	11	29
Chemicals and Pharmaceuticals	7	70
Construction and Engineering	2	50
Total	47	38

c) In response to a requirement expressed by a majority of the companies in the sample their anonymity is ensured. Please Refer Annex I. The findings for each industry sector are given as aggregates. Further, the overall aggregates for the six sectors are also presented. In addition, the exceptional and unusual performances of companies are highlighted. The study focuses exclusively on the Management

Accounting practices of the companies in the sample and do not in any way examine those of either their holding or subsidiary companies.

d) It is presumed that the above six sectors cover a fair cross-section of diverse industry sectors in Sri Lanka and that the variety offered facilitates the examination of whether industry specific management accounting practices exist. Further, a sufficiently large sample of companies, ranging from 25% - 50%, has been picked from each industry sector to assess whether uniformity and consistency of practices can be observed among companies within the sector.

7) Growth of Management Accounting Practices

Kaplan (1984), Johnson and Kaplan (1986) and Kaplan and Atkinson (1996) trace the origins of Management Accounting to the emergence of managed hierarchical enterprise in the early nineteenth century in the aftermath of the Industrial Revolution. They argue that the techniques of Management Accounting were developed in the late nineteenth and early twentieth centuries through the practical innovations of the entrepreneurs and businessmen. They also argue that most of the Management Accounting practices that are in use today were available by 1925 and that there have been few apparent changes in Management Accounting practices during the next sixty years though there have been substantial changes taking place in manufacturing operations due to advances in technology.

The stagnation of growth of Management Accounting practices is attributed mainly to the explosive growth of large-scale business organizations. This growth required colossal amounts of funds, which came from the issue of shares as well as funds from lending organizations that were concerned about the safety of their investments. This was accomplished through the establishment of regulatory bodies and the demand for a multitude of financial reports. This was all the more critical as a hired managerial clan too emerged around this time giving rise to the 'agency problem.' Thus, according to the Anglo-American viewpoint this chain of events resulted in the meteoric rise of Financial Accounting, but at the cost of the growth of Management Accounting.

Proceeding on the same lines, in the 1950s and 1960s a major stream of Management Accounting literature appeared with the focus on the application of quantitative models to a variety of planning and control problems in organizations. This assortment of techniques, which had its origins in the growth of Operations Research, Mathematical Economics and Statistics during the Second World War, was now freely available to meet the challenge of business competition. Kaplan, 1996 (ibid.), however, argues that quantitative techniques have not, in fact, been extended to the domain of Management Accounting but only provided analytical tools for aiding the planning, control and decision making of managers.

Towards the closing years of the last century the winds of globalization were sweeping through the world, accompanied by deregulation, liberalization and privatization moves resulting in rapidly changing and complex business environments. This resulted in the

intensity of competition among business organizations reaching new heights. In order to be competitive, the emerging business environment that looms large before them prompted academics, entrepreneurs and managers to rediscover the need for innovations in Management Accounting in the key success areas of cost, quality, flexibility and time (Drury, op. cit.). This resulted in the birth of a galaxy of new practices culminating with Integrated Management Accounting Systems aimed at manufacturing and service excellence in modern organizations.

8) Current Knowledge

Studies from the West

Researchers from the West, i.e. USA and UK, as well as the East have contributed to the debate on the gap between theory and practice in Management Accounting. For instance, Coates et.al. 1989, (op. cit.), on examining the Management Accounting practices of a small sample of 14 companies concluded that 'there appears to be a substantial gap between theory and practice.' Among his findings was a strong inclination among the companies to absorption-based costing methods with fewer tendencies for marginal cost analysis and other formal analysis of costs by behaviour. These findings were supported in a study of 22 engineering companies by Finnie and Sizer (op. cit.). In another study of 99 companies, Scapens et. al. (1983), observed a very high use of absorption costing based information for price setting purposes. However, they assert that decision makers also modify the accounting information they receive from formal accounting systems on the lines of marginal cost analysis when they make decisions.

Coates et. al., (ibid.), in their study, further observed a general lack of sophisticated mathematical techniques in practice. They found no evidence of linear programming or similar techniques used in budgeting, transfer pricing or other decision-making situations. Gregory and Piper (op. cit.) found little evidence of quantitative techniques such as inventory models and reorder levels being used in decision-making situations. Green et. al. (1977), in a major US based study, observed that although some US companies used quantitative techniques in their long range planning and operations management exercises, most of them used simple techniques. This trend prompted Argenti (1976) to lament, 'Whatever happened to management techniques?', by which he meant advanced quantitative methods such as Operations Research and Mathematical Modeling, which were in vogue two decades prior to his lament.

Studies from the East

In a landmark study by Chenhall and Langfield-Smith (op. cit.), who closely followed many contemporary studies [Bright, et.al. (1992); Cohen and Paquette, (1991); and Joye and Blayney (1995)] on the adoption of innovative Management Accounting practices, state that 'in general, traditional Management Accounting techniques are still widely used and many organizations have only just begun experimenting with contemporary approaches.' Thereafter, the researchers carried out an in-depth study of five manufacturing organizations where they observed the use of Activity Based Costing;

Activity Based Management; Benchmarking; Balanced Scorecard, and Key Performance Indicators in varying degrees.

In a study of responses from 332 middle level accounting managers in Australia, Sharma (op. cit.) emphases the need to adopt a more holistic approach to management and the need to have both traditional and non-traditional (emergent) Management Accounting methods in order to make more effective decisions.

In a Malaysian study of 250 companies, Omar et. al. (op. cit.) found that the application of modern Management Accounting techniques in locally owned corporations was very low when compared with multinational corporations. Further, based on the Four-Stage Development Model (Nishimura, 1995, 1997, 2002), they contended that multinational corporations are positioned in more advanced growth phases when compared with local corporations. They concluded that in local corporations Management Accounting information was subservient to Financial Accounting information, and moreover, the Management Accounting techniques used were confined to traditional practices such as budgetary control and variance analysis.

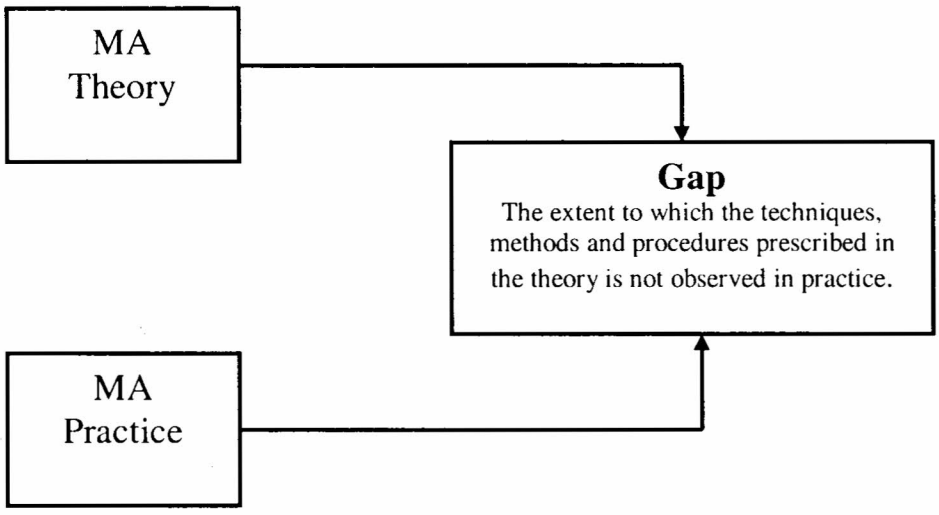
In a recent second Malaysian study of a little over 100 small and medium scale industries (SMIs), Kamal et. al. (op. cit.) expressed optimism about the SMIs being ready to open up, try out and apply new, integrated Management Accounting approaches in the near future. However, they admitted that their initial expectation of the low level application of practices owing to the small size and restrictions on capital was not disproved by the survey results as the new innovations and their impact were not as yet widespread.

In a recent study sponsored by the CIMA Sri Lanka Division, where the focus was on the cost management practices in the Plantation Sector of Sri Lanka, similar results were obtained. An interview-based survey of 12 plantation companies revealed that the emphasis was on traditional Management Accounting practices such as Budgeting, Standard Costing and Variance Analysis (Luther, 2003).

9) Conceptualisation

The study question, 'Is there a gap between the theory and practice of Management Accounting in business in Sri Lanka?' is conceptualised as shown in Diagram 1: MA Theory vs. Practice: The Gap.

Diagram 1: MA Theory vs. Practice: The Gap



The theory of Management Accounting is in turn conceptualized on a grid bounded by the two dimensions, i) Development Stages of Management Accounting; and ii) Functions of Management Accounting. This will hereafter be referred to as MA: Function - Development Stage grid. Please refer Diagram 2.

(i) Development Stages of Management Accounting

The Development Stages of Management Accounting are based on Nishimura's four-stage model, which is outlined below.

Nishimura (op. cit.,) traces the development of Management Accounting through four stages: Drifting; Traditional; Quantitative; and Integrative. This categorization seems to largely match (with a few exceptions) with the growth of Management Accounting as theorized by Kaplan, 1984 (op. cit.) and Johnson and Kaplan (op. cit.). Kaplan et.al., (1998), in his more recent writings, proposes a four-stage model for Cost and Performance Measurement: i.e. Broken, Financial Reporting Driven, Specialized and Integrated, which has strong underpinnings and parallels with the Nishimura model.

According to Nishimura, the Drifting Stage represents the most elementary level, where decision making is done on a situational basis, and often based on on-line observations as well as a limited quantum of historical financial data. It also connotes the lowest level of participation of users in the generation of Management Accounting information. Further, in the Drifting Stage a separate Management Accounting system is not in place. The Traditional Stage saw the formation and development of basic Management Accounting techniques. Nishimura attributes this turn of events mainly to the influence of the government's statutory and regulatory influences as well as the government budget. The next stage, Quantitative, came into existence with the advent of Operations Research and

Mathematical Models, which were used extensively in business analysis and decision making. The fundamental objective of this stage was to control the planning process itself and to forecast with precision the key business indicators for the future in the given environments, which were often of a risky nature. The use of values of probability was advocated while controls covered both feedback and feed-forward types. The Integrative Stage represents the highest level of sophistication and emphasizes the integration of various organizational processes and functions with the focus on a total package of Management Accounting information embracing the entire organization. Further, it entails the highest level of participation of users in the generation of Management Accounting information.

It can be easily inferred that a company in a later state of development will have absorbed all the practices that belong to the earlier stages of development. This essentially means that the objectives of the earlier stages of development have already been met. However, there could be instances where a company in a given state of development may also have some of the characteristics (practices) that belong to a higher state or states of development.

(ii) Functions of Management Accounting

The functions of Management Accounting are based on the currently held functional categorization of CIMA, which is outlined below.

As stated in the **CIMA Terminology** (op. cit.) the core of Management Accounting is the information-base which is used by organizations for the following functions: i) formulating business strategy, ii) planning and controlling activities, iii) decision making, iv) efficient resource use, v) performance improvement and value enhancement, vi) safeguarding tangible and intangible assets, and vii) corporate governance and internal control. However, in the conceptualization process the last two categories were amalgamated into one as 'internal controls, corporate governance and safeguarding assets' (abbreviated as 'internal controls'). This categorization is in conformity with the others that have been stated under Scope of Management Accounting in this paper.

Management Accounting Theory: As mentioned earlier, the theory of Management Accounting encompasses the contents of current textbooks on Management Accounting. In defining Management Accounting Theory for the purpose of this study, ten textbooks currently used by universities, higher educational institutions and professional Accounting bodies were selected. Based on these textbooks, a list of 36 practices was developed. Please refer to Annex I1: List of Currently Used Management Accounting Text Books. This approach of developing an Accounting theory base has been previously adopted by Scapens, 1993, (op. cit.), who developed a theory database using 24 currently used textbooks.

Thirty-six Management Accounting practices were identified and positioned in the MA: Function – Development Stage Grid. Please refer to Diagram 2: Management Accounting

Theory: Function vs. Development Stage Classification. In developing this classification the following assumptions were made:

a) The 'practices' were not treated as separate from 'techniques,' because techniques are, in contra distinction to practices, analytical tools used in the preparation of Management Accounting information in organizations.

b) Equal weightage was attached to each of the practices.

c) In locating the positions of the practices, although a given practice in certain instances may be fitted into more than one function and also more than one development stage, considerable effort was made to trace the practice to the most appropriate cage in the grid. In this exercise the writers were guided by previous studies as well as textbooks.

d) The list of Management Accounting practices consists of process improvement methods such as Business Process Re-Engineering, Total Quality Management, Activity Based Management, and Work-Study Methods. They are processes that are undertaken on a continuous basis in the key success areas of managing costs, quality, flexibility and innovation. They demand specific types of information that have to be developed by the Management Accounting Systems in use. Thus, it will be relevant to consider these under the list of Management Accounting practices. Current textbooks on Management Accounting describe the at great length which strengthens the above argument.

Diagram 2: Management Accounting Theory: Development Stage vs. Function Classification

No.	The Practice	Development Stage			
		Drifting	Traditional	Quantitative	Integrative
	Formulating Business Strategy				
1	Strategic Management Accounting (SMA)				
2	Balance Scorecard Analysis				
	Planning and Control Activities				
3	Standard Costing and Variance Analysis				
4	Target Costing				
5	Budgeting and Budgetary Control				
6	Ratio Analysis				
7	Job Costing				
8	Process Costing				
9	Cash Flow Forecasting and Planning				
10	Statistical Forecasting Techniques				
	Decision Making				
11	Absorption Costing				
12	Variable Costing (Marginal Costing/ Direct Costing)				
13	Activity Based Costing (ABC)				
14	Decision Models				
15	Linear Programming Models				
16	Capital Budgeting Techniques				
17	Network Analysis				
18	CVP Analysis (Break-even Analysis)				
19	Waiting Line Models/ Queuing Theory				
20	Transportation Models				
	Efficient Resource Usage				
21	Business Process Re-engineering				
22	Just in Time Systems (JIT)				
23	Total Quality Management (TQM)				
24	Management Audits				
25	Life Cycle Costing				
26	Re-order Levels (ROL)				
27	Economic Order Quantities (EOQ s)				
28	ABC Analysis (Pareto Analysis)				
29	Sampling Techniques				
	Performance Improvement and Value Enhancement				
30	Kaizen Costing (Continuous Improvement)				
31	Benchmarking				
32	Value Chain Analysis				
33	Activity Based Management (ABM)				
34	Performance Evaluation				
35	Work-Study Methods (Method Study)				
	Internal Controls				
36	Internal Audits				

10) Methodology

The Sample and Selection of Industries

The sample consists of forty-seven quoted public companies listed in the Colombo Stock Exchange (CSE). They were selected from six of the twenty sectors listed in the CSE. This is a 30% representation of the sectors. The selected sectors are Beverages, Food and Tobacco; Construction and Engineering; Chemicals and Pharmaceuticals; Hotels and Travel; Manufacturing; and Plantations. When selecting the sectors emphasis was given to including manufacturing related sectors. Please refer to Table 1: Sample of Quoted Public Companies.

Selection of Industry Samples

In order to select industry sector samples, the full list of companies under each sector was ranked on the basis of five indicators: turnover, net assets, profit after taxation, and EPS for a three-year period from 1999-2001, and market capitalization as at 31.3.2001.

Firstly, a three-year average was calculated for each variable except for market capitalization for all the companies. Secondly, the companies were ranked sector-wise, based on each individual criterion, i.e. average turnover, average net assets, average profit after taxation, average EPS and market capitalization as at 31.3.2001. A rank of one was given to the best company, in respect of a given indicator. Then the rankings obtained under these individual criteria were totalled for each company. Thereafter, a predetermined number of companies from each sector was selected on the basis of this overall ranking, using the Systematic Random Sampling Method. It was assumed that this sampling method would ensure the inclusion in the final sample of companies with varying degrees of performance, from low to high.

Data Collection

Two questionnaires (Form A1: Manufacturing, and Form A2: Service Sector) were developed to gather data. Please refer to Annex III.

Prior to finalizing the questionnaire, a pilot survey was done. Based on the comments and suggestions received in the pilot survey certain modifications were effected and the final version of the questionnaire was developed.

The questionnaires were dispatched to the Chief Financial Officer (CFO) of the eighty companies that were selected initially. There was no immediate response from any of them. Therefore, the CFOs of companies were subsequently contacted over the telephone and were briefed about the study, and thereby the writers managed to persuade 47 respondents to participate. In most cases a member of the research team called over personally to collect the completed questionnaires. This enabled the research team to ensure that the questionnaires were filled properly and also to obtain evidence of the authenticity of the information provided. The time taken to complete the questionnaire

exceeded the targeted time period by a considerable margin and hence the data collection took much longer than expected.

The completed questionnaires were analysed in terms of absolute values and percentages in order to classify them according to functions and stage of development. Initially a sector-wise analysis was carried out, followed by an overall examination of the emerging trends.

11) Limitations and Other Considerations

The findings of the study are subject to the following reservations:

a) Owing to the limited number of sectors selected the findings cannot be applied to the Management Accounting practices of all the industry sectors.

b) The findings cannot be considered as fully representative of the Management Accounting practices of the entire business sector in Sri Lanka, as the segment surveyed constituted only a small number of the total number of organizations. For instance, unquoted companies as well as the small and medium scale companies were omitted.

c) There could have been a bias among. to overstate the Management Accounting practices due to the accompanying prestige associated with a positive response. However, this effect was minimized through the discussions the researchers had with the company representatives.

d) Use of the questionnaire method in gathering data has its disadvantages. In this method the companies are not given an opportunity to justify the Management Accounting practices that they claim to use.

e) The interpretations that the companies gave to various practices were based on their perceptions, which could differ from the actual meaning of the respective practices. This could also have led to overstatement of practices. However, this effect was also controlled to some extent through inclusion of crosscheck type questions.

12) Analysis of Management Accounting (MA) Practices: an Overview

In the analysis phase each of the six sectors was examined separately. Thus, there were six segments in the analysis, each consisting of i) Overview of the companies; ii) Organization of the MA function; iii) State of MA practices: Analysis by functions, and iv) The most commonly used MA practices in the sector.

MA practices that have been used by at least 50% of the companies in the sample are included under (iv) above. The diagrams presented in relation to this will highlight the most popular MA practices for each sector for easy reference.

The sector–wise analysis is followed by a narration of the emerging trends, taking the six sectors as a whole. In giving the trends, both sector-wise and overall, the emerging patterns are presented in general terms, without reference to quantities (numbers and proportions) because these figures are already available in the Sector Analysis Sheets (Tables 12.1 – 12.6). Further, the analysis is based on claimed (written) responses received to the questionnaires. These appear in summary form in the Sector Analysis Tables. However, wherever subsequent discussions with the companies revealed anything to the contrary of what has been stated in the questionnaires, special reference is made to them in the text that follows.

The sample contained a few affiliates of multinational companies, which are referred to as 'multinational companies' in the data analysis section that follows. This is for the sake of convenience.

12.1 Sector Analysis: Beverages, Food and Tobacco

Overview of the Sector

Seven out of the eighteen companies in this sector were selected for the study. Among them, four deal mainly in beverages, two in food items and one in tobacco- based products. Thus, the companies are of a highly diverse nature in terms of the product range. The main product lines of these companies include tea, coffee, noodles, wheat flour- based products, milk products, soy products, beer, cigarettes, and liquor.

Only one company caters to the export market and the other six companies focus mainly on the domestic market. Batch type production is used in the production of tea, milk, noodles, and soy products with varying degrees of automation. For instance, a high level of automation is used in the manufacture of tea and milk products whereas a low level of automation is used in the production of noodles and soy products. Process type production is used in product lines such as beer, cigarettes and hard liquor. A high level of automation is used in these product lines except hard liquor. The workforce of these companies ranges from about 100 to 1,200, including managerial staff. Rivalry among competing domestic and foreign firms is very high.

The MA Function

Structure

In the majority of the companies the MA function falls within the purview of the Head of Finance (or the Financial Controller). In most of them this function is carried out by a small MA team, which is normally headed by a Management Accountant, or depending on the specific requirements of the company, by an individual with a designation coined for the purpose (e.g. Marketing Finance Manager, Systems Administrator). In five of the companies in the sample the post of Head of Finance is at present held by CIMA members.

Users

Four of the companies stressed that Corporate Management (i.e. policy-making level) makes most use of the MA information whereas two companies stated that it is mostly used for Accounting and Finance, and Marketing (Functional level) purposes. A multinational company (the only one in the sample) in the sample produced an extensive list of reports and documents that are regularly generated by its MA Unit, which is suggestive of the high importance given to the use of MA information in various functional areas.

Communication

In disseminating MA information the companies use a variety of methods such as regular performance/evaluation reports, regular and special meetings, on-line computer outputs, confidential reports and discussions and presentations. In this respect too, the multinational company is way above the others.

State of Management Accounting: Analysis by Function

Please refer to Table 12.1.

Formulating Business Strategy

The multinational company adopts both Strategic Management Accounting and Balanced Scorecard Analysis to a great extent. Five of the companies do not use Balance Scorecard Analysis at all and even Strategic Management Accounting only very marginally.

Planning and Control Activities

All the companies carry out budgeting and budgetary control to a high degree except one company, being extremely cash rich does not use it at all; it enjoys a free flow of money. On the other hand, in sharp contrast, yet another cash rich company (a multinational company) is fully involved in Budgeting and Budgetary control. Its cash forecasting and planning model is fully integrated with the sales and operational planning systems, material requirement budgets and expense budgets. Further, cash requirement plans are prepared as part of the annual company planning process.

Table 12.1: Analysis of Management Accounting Practices:Beverages, Food, and Tobacco Sector

No.	Stages of Development / Practices	Drifting Stage						Traditional Stage						Quantitative Stage						Integrative Stage					
		Level of Use						Level of Use						Level of Use						Level of Use					
		High		Low		Not used		High		Low		Not used		High		Low		Not used		High		Low		Not used	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	Formulating Business Strategy																								
1	Strategic Management Accounting																			2	29%	3	43%	2	29%
2	The Balance Scorecard Analysis																			2	29%	1	14%	4	57%
	Planning and Control Activities																								
3	Standard Costing and Variance Analysis							2	29%	2	29%	3	43%												
4	Target Costing																			4	57%	0	0%	3	43%
5	Budgeting and Budgetary Control							5	71%	1	14%	1	14%												
6	Ratio Analysis	3	43%	4	57%	0	0%																		
7	Job Costing							0	0%	0	0%	7	100%												
8	Process Costing							1	14%	0	0%	6	86%												
9	Cash Flow Forecasting and Planning							4	57%	3	43%	0	0%												
10	Statistical Forecasting Techniques													2	29%	3	43%	2	29%						
	Decision Making																								
11	Absorption Costing							3	43%	1	14%	3	43%												
12	Variable Costing							3	43%	2	29%	2	29%												
13	Activity Based Costing													1	14%	1	14%	5	71%	1	14%	1	14%	5	71%
14	Decision Analysis Models													1	14%	0	0%	6	86%						
15	Linear Programming Models													0	0%	2	29%	5	71%						
16	Capital Budgeting Techniques													3	43%	3	43%	1	14%						
17	Network Analysis													1	14%	1	14%	5	71%						
18	Break-even Analysis													4	57%	3	43%	0	0%						
19	Waiting Line Models													0	0%	0	0%	7	100%						
20	Transportation Models													1	14%	0	0%	6	86%						
	Efficient Resource Usage																								
21	Business Process Re-engineering																			1	14%	3	43%	3	43%
22	Just in Time Systems																			1	14%	4	57%	2	29%
23	Total Quality Management																			5	71%	1	14%	1	14%
24	Management Audits																			4	57%	3	43%	0	0%
25	Life-cycle Costing																			0	0%	1	14%	6	86%
26	Re-order Levels													5	71%	1	14%	1	14%						
27	EOQs													3	43%	1	14%	3	43%						
28	ABC Analysis													1	14%	0	0%	6	86%						
29	Sampling Techniques													4	57%	2	29%	1	14%						
	Performance Improvement and Value Enhancement																								
30	Kaizen Costing																			2	29%	3	43%	2	29%
31	Benchmarking																			1	14%	6	86%	0	0%
32	Value Chain Analysis																			2	29%	1	14%	4	57%
33	Activity Based Management																			2	29%	2	29%	3	43%
34	Performance Evaluation	5	71%	2	29%	0	0%																		
35	Work Study Methods													1	14%	6	86%	0	0%						
	Internal Controls																								
36	Internal Audits							4	57%	3	43%	0	0%												

Further, in this multinational company, a Standard Costing system is also in operation, integrated with Budgeting and Budgetary Control systems. All reporting systems are fully integrated with the company's Enterprise Resource Planning (ERP) system and are continuously monitored by actual output. However, in the entire sample only two companies make use of any form of standard costing.

It is important to note that the multinational company prepares rolling budgets (the only company to do so); takes a zero-based budgeting approach (two other companies also do so) and also adopts a decentralized approach (as the majority does) in preparing budgets. Contrary to this experience, the majority of the companies prepare fixed budgets (as against flexible budgets); and in many instances budget variance analysis is carried out on a monthly basis.

Cash Flow Forecasting and Planning in the sector vary from long-range three- year forecasts updated on a monthly basis to monthly forecasts. However, all the companies seem to keep a close watch on the cash balances on a daily basis. In yet another company in the beverages industry a five-week forecast is updated weekly and a 'cash balance paper' is prepared daily to ascertain the daily cash position.

Four companies claimed that they use Target Costing extensively. A fairly high level of Ratio Analysis was also observed. It was also noted that three companies use transfer pricing, mostly market based, in intra-company as well as inter-company operations.

Decision Making

Three companies stated that they use Absorption Costing exclusively. Most of the others use, in addition to Absorption Costing, Computer Variable Costing as well. The overhead absorption rates used are based on the number of units and total manufacturing cost. In the meanwhile, the multinational company shows a high level of application of Activity Based Costing, which is extended to departmental levels. It also emphatically rejects the use of Absorption Costing.

It is interesting to note that all the companies make use of CVP Analysis in a variety of applications, which also confirms their familiarity with Variable Costing.

The multinational company also uses a variety of quantitative techniques such as Decision Analysis Models (e.g. Pareto, fishbone diagrams, etc.) for identification of quality and technical problems; and Network Analysis (in production and engineering projects). However, this company does not use Linear Programming, Transportation Models and Waiting Line Models. On the other hand, none of the other companies make use of any of these quantitative methods.

The cash rich company that does not carry out budgeting is also does not make a formal appraisal of capital projects. In this company the capital investment decisions are the prerogative of the main shareholder (Chairman) of the company. The Capital Budgeting

techniques used by other companies are shown in Diagram 12 A. Most of the companies use discounted cash flow techniques, the NPV method being the most preferred.

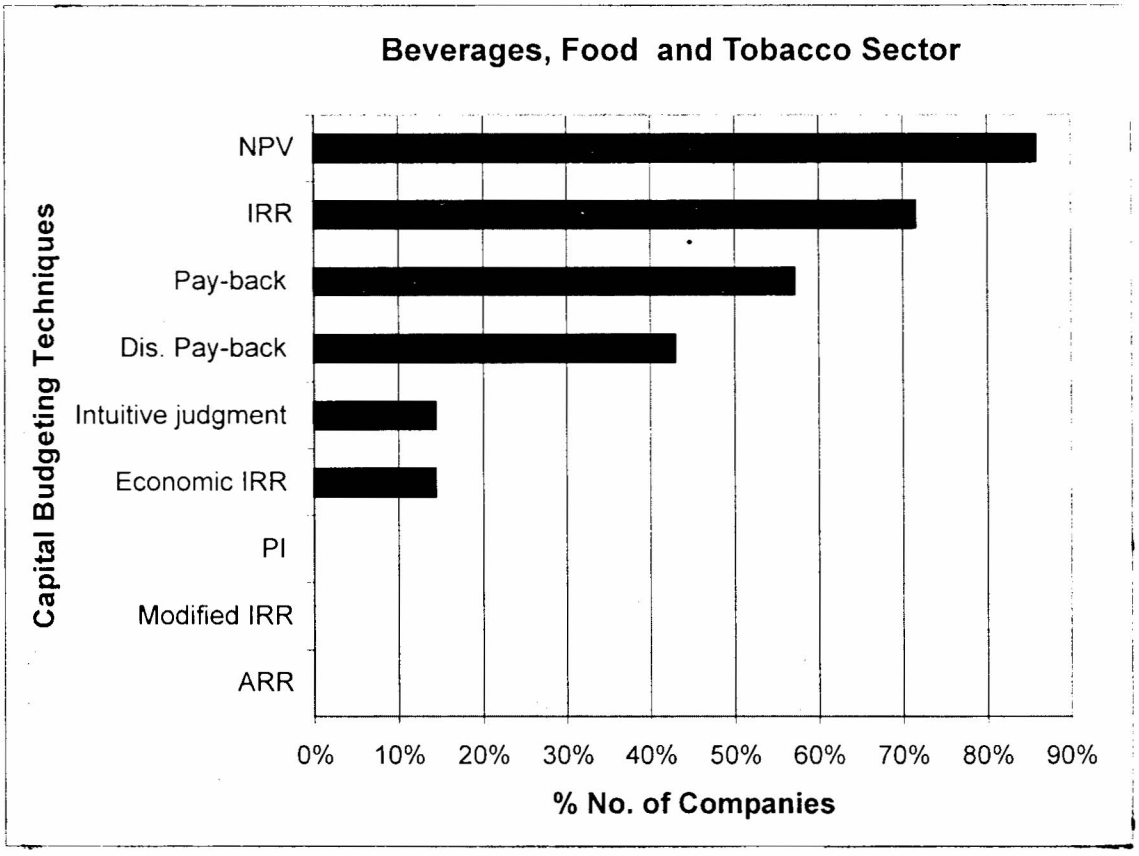


Diagram 12.1: Use of Capital Budgeting Techniques

Efficient Resource Use

A company from the beverages indicated that on the recommendations of external consultants, Business Process Reengineering (BPR) is used extensively in its production-related activities. Other companies too use BPR in different degrees. There is an overwhelming use of inventory control techniques such as Re-order Levels and EOQs, particularly in relation to frequently used inventory items. There is little familiarity with ABC Analysis of inventory control. One company maintains stocks for pre-determined periods of time. Most of the companies seem to have their own interpretations and adaptations (e.g. vendor managed inventory) pertaining to Just in Time Systems.

There seems to be an obsession with Total Quality Management as five companies use it extensively. In contrast, Life Cycle Costing seems to be an unfamiliar concept, with most of the companies requesting clarification of this term. Further, some of the firms use Management Auditing while Sampling Techniques are used predominantly in quality control.

Performance Improvement and Value Enhancement

Most of the firms practise Performance Evaluation for preparing company specific reports consisting of quantitative and qualitative indicators. The multinational company uses Work-Study Methods for productivity improvement. However, Work-Study Methods together with Benchmarking are not popular practices among the other companies in the sample. Although not known by the term Kaizen Costing, most of the companies use this technique in their efforts at continuous improvement. Value Chain Analysis and Activity Based Management are unfamiliar to most of the companies.

Internal Controls

Internal Auditing is a very familiar concept and there is a medium to high level of applications of it among the companies in the sample.

The Most Commonly Used MA Practices in the Sector

The most frequently used practices with the user rates are given in Diagram 12.1B. Out of the 36 techniques considered in the study more than 50 % of the companies in the sample use 10 techniques extensively. As indicated in the diagram, 71% of these companies use TQM, Re-order Levels, Performance Evaluation and Budgetary Control. The other practices are used by about 60 % of the sample.

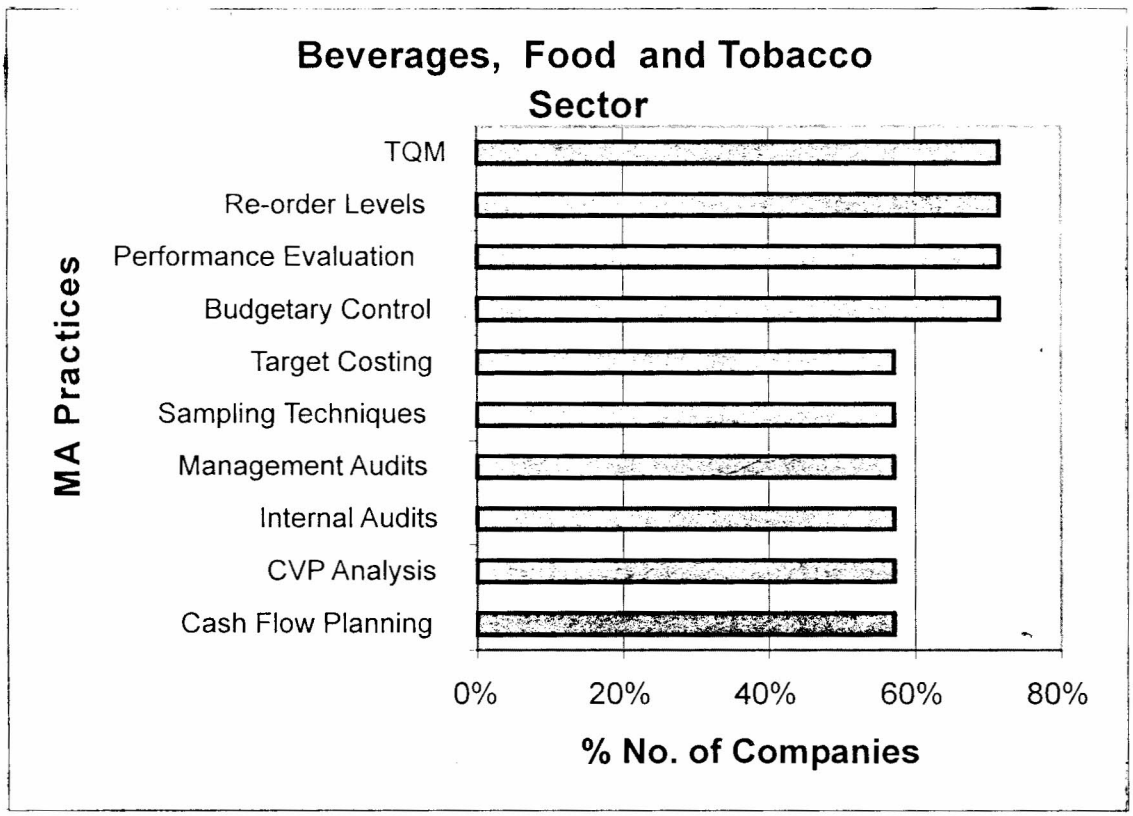


Diagram 12.1 B: Commonly Used MA Practices

Summary

The MA practices mostly used by the companies in this sector belong to the Drifting Stage and the Traditional Stage. Some of the practices also fall into the Quantitative Stage owing to a substantial use of Capital Budgeting Techniques, Break-even Analysis and Inventory Control Techniques. In terms of functions, the companies predominantly focus on Planning and Control Activities, Efficient Resource Use, and Internal Controls with some activity in other functional areas as well. An exception here is the cash rich multinational company, which falls more into the Integrative Stage, with an even scatter of MA practices across functional areas.

12.2 Sector Analysis: Hotels and Travels

Overview of the Sector

Ten out of the thirty-eight companies in this sector were selected for the study. They represent companies managed by seven managing companies (management agents), which means that a managing company may manage more than one hotel and travel company. All these companies are owners and operators of hotels and cater mainly to foreign tourists. The workforce of these companies ranges from 500 to 1,200 employees. Competition arises mainly from competing domestic and foreign firms, buyers' bargaining power and the suppliers of key inputs.

The product lines of a hotel are normally food and beverages, accommodation, and ancillary services, which make the companies fairly homogeneous in terms of the product range offered. On the other hand, the different hotel companies managed by a single management agent follow similar MA practices in all the companies falling within its purview. The MA practices of such hotel companies are very similar to each other.

Organisation of the Management Accounting Function

Structure

In all the companies the MA function is looked after by the person in charge of the overall financial function, often designated as Group Financial Controller/ Financial Controller/ Finance Manager, etc. A separate MA unit exists in one company only. In all the other companies, depending on their requirements, MA information is generated by the Finance Department. In four of the companies MA information is hardly recognized or developed. They adopt a financial information-based historical approach in a limited use of information for planning and control purposes. Further, they do not seem to care about the emerging competitive pressures owing to their current dependence on their long-standing business partners/ contacts for their survival and prosperity.

Users

Corporate Level Management seems to make greater use of MA information followed by Functional Level Management in the areas of Accounting and Finance, and Marketing. The MA information generated is: daily, weekly and monthly revenue and occupancy reports; weekly and monthly food and beverage cost analysis; stock reports; and monthly performance and intra and inter organizational performance comparison reports.

Communication

The MA information is disseminated through performance/ evaluation reports, meetings, on-line computer printouts, confidential reports, discussions and presentations.

State of Management Accounting: Analysis by Function

Please refer to Table 12.2.

Formulating Business Strategy

Both Strategic Management Accounting and Balance Scorecard analysis are hardly used by the companies in this sector. Even the two companies (managed by the same managing company) that claim to make limited use of the Balanced Scorecard Analysis and Strategic Management Accounting appear to have not understood the concepts well. Thus, the use of MA practices with a view to formulating Business Strategy is extremely weak.

Planning and Control Activities

In most instances the managing companies prepare and monitor the standard costs, budgets, cash flows etc. for the hotel companies under them. Mixed responses were observed in relation to Budgeting and Budgetary Control. There are a few companies with a high use of Budgeting and Budgetary control, some others with a low use and one company that does not practise it at all. The latter, which is confident of high occupancy rates through long-standing business contacts, considers preparing and monitoring budgets a waste of resources (including time). The only related activity for the Accountant of this company is to submit the daily cash balance to the Financial Controller, and to prepare weekly cash forecasts whenever cash problems arise. Three other companies coming under a managing company prepare budgets as a mere formality and their main concern is to focus on cash flows, which are prepared for two-week periods and monitored daily. But the norm in this sector seems to be to prepare annual cash flows based on expected occupancy levels adjusted for standard credit periods and to review and compare them against actual values on a monthly basis and to revise, if necessary.

The budgets are mostly fixed, incremental and de-centralized in that the cost and revenue estimates are generated by the hotel companies to be put together by the managing

Table 12.2: Analysis of Management Accounting Practices: Hotels and Travels Sector

No.	Stages of Development / Practices	Drifting Stage						Traditional Stage						Quantitative Stage						Integrative Stage					
		Level of Use						Level of Use						Level of Use						Level of Use					
		High		Low		Not used		High		Low		Not used		High		Low		Not used		High		Low		Not used	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	Formulating Business Strategy																								
1	Strategic Management Accounting																			3	30%	0	0%	7	70%
2	Balance Scorecard Analysis																			0	0%	2	20%	8	80%
	Planning and Control Activities																								
3	Standard Costing and Variance Analysis							4	40%	2	20%	4	40%												
4	Target Costing																			0	0%	4	40%	6	60%
5	Budgeting and Budgetary Control							6	60%	2	20%	2	20%												
6	Ratio Analysis	4	40%	6	60%	0	0%																		
7	Job Costing							1	10%	1	10%	8	80%												
8	Process Costing							0	0%	3	30%	7	70%												
9	Cash Flow Forecasting and Planning							7	70%	2	20%	1	10%												
10	Statistical Forecasting Techniques													3	30%	6	60%	1	10%						
	Decision Making																								
11	Absorption Costing							0	0%	5	50%	5	50%												
12	Variable Costing							3	30%	3	30%	4	40%												
13	Activity Based Costing																			0	0%	2	20%	8	80%
14	Decision Analysis Models													0	0%	0	0%	10	100%						
15	Linear Programming Models													0	0%	0	0%	10	100%						
16	Capital Budgeting Techniques													3	30%	3	30%	4	40%						
17	Network Analysis													0	0%	0	0%	10	100%						
18	CVP Analysis													2	20%	5	50%	3	30%						
19	Waiting Line Models													0	0%	0	0%	10	100%						
20	Transportation Models													0	0%	0	0%	10	100%						
	Efficient Resource Usage																								
21	Business Process Re-engineering																			0	0%	3	30%	7	70%
22	Just in Time Systems																			0	0%	0	0%	10	100%
23	Total Quality Management																			0	0%	0	0%	10	100%
24	Management Audits																			3	30%	4	40%	3	30%
25	Life–cycle Costing																			0	0%	0	0%	10	100%
26	Re-order Levels													2	20%	8	80%	0	0%						
27	EOQs													1	10%	0	0%	10	100%						
28	ABC Analysis													1	10%	0	0%	9	90%						
29	Sampling Techniques													0	0%	0	0%	10	100%						
	Performance Improvement and Value Enhancement																								
30	Kaizen Costing																			0	0%	2	20%	8	80%
31	Benchmarking																			0	0%	7	70%	3	30%
32	Value Chain Analysis																			0	0%	0	0%	10	100%
33	Activity Based Management																			0	0%	0	0%	10	100%
34	Performance Evaluation	6	60%	4	40%	0	0%																		
35	Work Study Methods														0%	0	0%	10	100%						
	Internal Controls																								
36	Internal Audits							6	60%	1	10%	3	30%												

company. There are also instances where the hotel company prepares expense budgets whereas the managing company prepares the revenue budgets. Just one company indicated some use of zero-based budgeting.

There is a limited application of Standard Costing and Variance Analysis in four of the companies. Standard costs are prepared in respect of some of the services such as cost per meal, cost per guest-day, etc. offered by them. And, one company claims to have a Standard Costing system integrated to the Budgeting and Budgetary Control system.

There is also limited use of Target Costing in setting prices of food items and determining standard packages for customers at competitive rates. All ten companies surveyed use Ratio Analysis where industry specific standard ratios are used. However, there is much variation in the intensity of use of the ratios. Further, four companies have recorded extensive use of Statistical Forecasting and Trend Analysis in predicting tourist arrivals and costs.

Decision-Making

There is a greater preference among the companies for the use of Variable Costing when compared with Absorption Costing, and as a result direct variable costs happen to be a key determinant in decision making situations. Many consider that absorption of overheads is not applicable in respect of hotels in arriving at unit servicing costs. This is understandable in a context where prices are mainly market driven. It follows that CVP analysis is widely used in this sector; seven of the companies use this technique for decision-making purposes.

Three companies use formal Capital Budgeting techniques as shown in Diagram 12.2 A. Formal techniques are rarely used in investment decisions that involve capital items. Three companies under the same managing company expressed the view that capital budgeting is the domain of the chairman of the company, who would depend exclusively on his intuitive judgment in deciding whether to invest or not in a project.

Two companies claimed limited use of Activity Based Costing while the rest of the companies responded in the negative. None of the companies makes use of quantitative techniques such as Decision Analysis Models, Linear Programming, and Network Analysis.

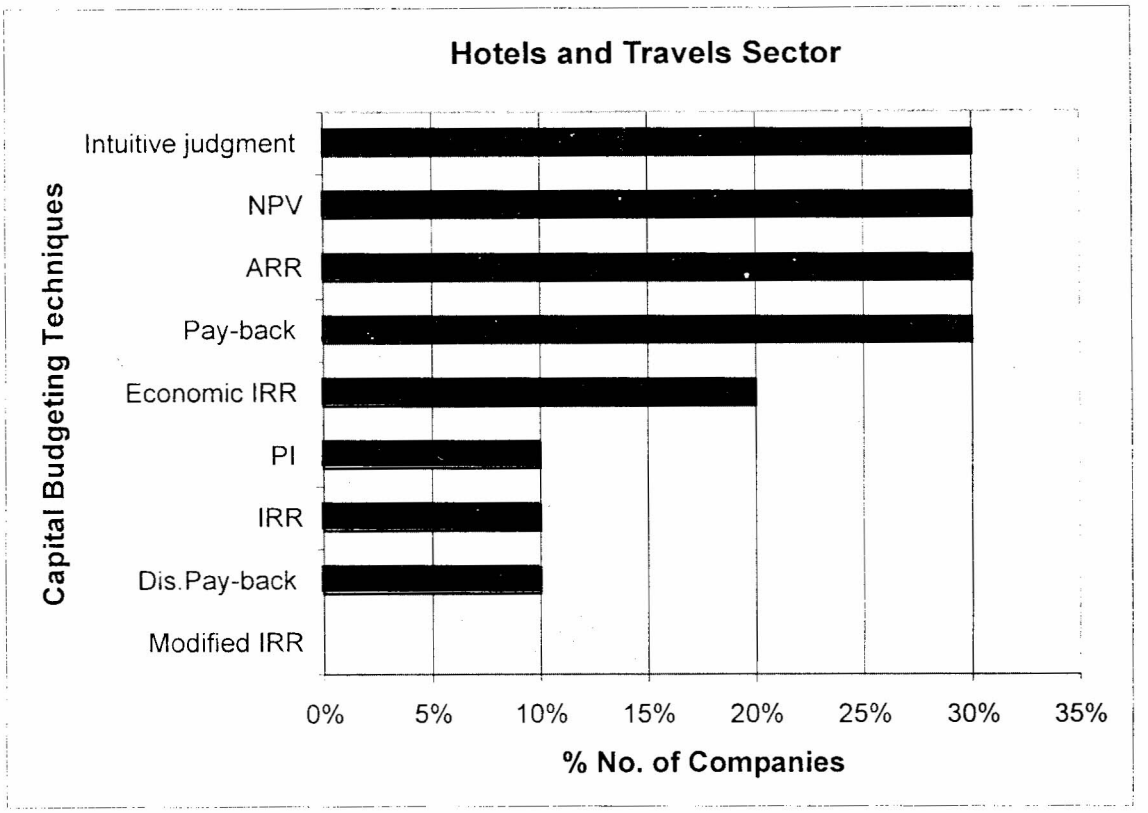


Diagram 12.2 A: Use of Capital Budgeting Techniques

Efficient Resource Use

In the area of inventory control one company maintains Re-order Levels in respect of key items, uses EOQs and carries out ABC Analysis in a consistent manner. In other companies in the sample only Re-order Levels are maintained and the extent of use is mainly moderate.

The same company that is strong in the area of inventory control uses Business Process Re-engineering in streamlining operational activities. There is no significant use of this technique elsewhere. It is strange to note that TQM is not used even sparsely in any of the companies. Understandably, a more intricate technique such as Just-in Time Systems is also not used for inventory management. However, Management Audits are used at different levels of intensity in all the companies in the sample.

Performance Improvement and Value Enhancement

All the companies make use of Performance Evaluation using quantitative and qualitative indicators and most of them pay a great deal of attention to monitoring a few performance indicators, which they consider to be key success factors. While the frequency of its use is mostly monthly, the nature and the number of performance indicators vary widely among companies. Only two companies claimed a limited use of

Kaizen Costing and there seems to be very little Benchmarking, particularly in the true sense of the term.

Value Chain Analysis, Activity Based Management and Work-Study Methods are not used by any of the companies.

Internal Controls

All the companies in the sample practise varying degrees of Internal Auditing.

The Most Commonly Used MA Practices in the Sector

The most frequently used practices with the user rates are given in Diagram 12.2 B; there are four such practices. Cash Flow Forecasting and Planning are by and large the most frequently used with a user rate of 70 %, followed by Performance Evaluation, Internal Audit and Budgetary Control with a user rate of 60 %.

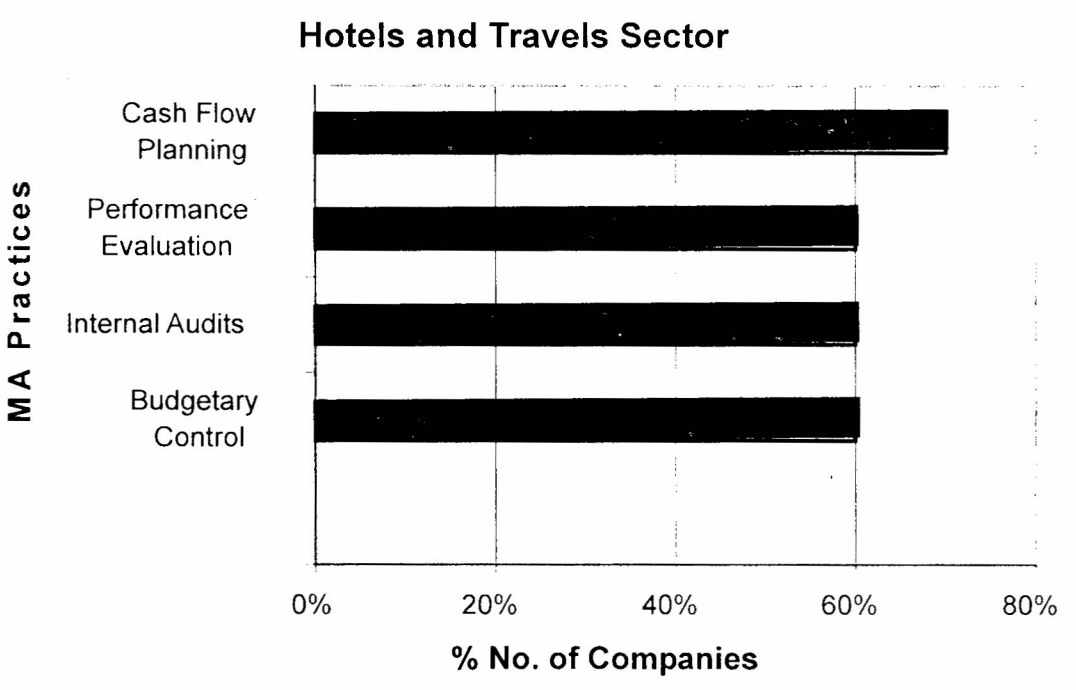


Diagram 12.2 B: Commonly Used MA Practices

Summary

The MA practices that are most used in this sector belong primarily to the Drifting Stage and secondarily to the Traditional Stage. They barely fall into either the Quantitative Stage or the Integrative Stage. In terms of functions, most of the companies focus on Planning and Control Activities and Internal Controls. The spread of companies varies from those with almost negligible use to moderate use of MA practices. Taking the sector

as a whole, the responses received reveal that in this sector very little attention is paid to the use of modern MA practices.

12.3 Sector Analysis: Plantations

Overview of the Sector

Ten out of seventeen companies in this sector were selected for the study. They represent companies managed by eight management agents, who serve in the capacity of either the holding company or the majority shareholder. In the case of the latter, both the plantation company and the management agent are members of the same group of companies, the ultimate parent company being the same for both. All ten companies are engaged in the cultivation, manufacture and sale of tea. Four companies are also engaged in the production of rubber while three companies are into the production of both rubber and a limited quantity of coconut. The bulk of the produce of all the companies is exported. Field operations are done manually while processing operations are semi automated. The companies adopt a process costing approach. The workforce of these companies ranges from 8,600 to 22,000 employees, with the majority engaged in field operations.

Industry competition is high with competitive arising mainly from buyers' bargaining power, rivalry among competing domestic and foreign firms, a wide range of substitute products backed by massive advertising campaigns and a few suppliers of key inputs.

Organisation of the Management Accounting Function

Structure

In the majority of the companies the Management Accounting function comes within the purview of the Head of Finance, who is identified by different designations. Compared with other sectors, the Finance function in these companies consists of a tall hierarchy, basically due to the influence of holding companies. In most of the companies a small team under the guidance of a Management Accountant looks after the Management Accounting work while in other companies this function is carried out by Divisional Accountants appointed on the basis of division of estates within the company, or by the Head of Finance himself. Thus, there is much variation in the organization of the Management Accounting function in plantation companies.

Users

In this sector there is a strong tendency for MA information to be mostly used by functional level managers followed by corporate level management. The commonly used MA information and users constitute: Monthly Management Reports, Weekly Cash flow Statements, and Labour Cost Reports (Accounting and Finance); Made Tea Yields and Valuation Reports, Daily Crop Targets, Production by Quantity and Quality Reports; Weekly Sales Reports with Elevation Averages (Marketing) and Overall Performance

Indicators (Corporate Management). Only one company indicated a greater use of MA information by corporate management over functional level managers.

Communication

Plantation companies use a wide range of instruments to disseminate MA information and there seems to be consistency among companies in this regard. Reports (key performance indicators and refuse tea analysis); meetings (monthly performance evaluation and superintendents' meeting); on-line computer printouts (special returns) and management presentations are among the instruments used.

State of Management Accounting: Analysis by Function

Please refer to Table 12.3.

Formulating Business Strategy

Greater use of Strategic Management Accounting is made than is Balanced Scorecard Analysis. However, in the discussions that followed with the companies it was noted that there was a difference between what they stated in response to the questionnaires and what seemed to be practised.

Planning and Control Activities

Plantations are overwhelmingly bent on Budgeting and Budgetary Control, Cash Flow Forecasting and Planning, and Ratio Analysis. This is understandable in view of the comprehensive management information systems that the Plantation Sector of Sri Lanka has inherited from the days of the colonial masters, who owned and managed the plantations with great success. This uniform information system which evolved gradually and smoothly based on the needs of the owners of plantations became the control system of the two giant state owned plantation corporations at the time of nationalisation of plantations in 1975. With the opening up of the economy, when they were privatised again towards the latter part of the century, the same information systems were basically adopted as the core of their MA systems. Thus, the above MA practices have come to stay as a permanent feature in managing the organisations with only minor modifications, if any. But the question to be raised is how effectively the information generated is passed down to the relevant users, and what happens next.

The above management information systems contain detailed annual estimates prepared on a monthly basis covering thirty operational items encompassing the activities of field work, plucking, manufacture, asset maintenance in the areas of costs, utilisation of resources, yields and productivity rates. In addition, costs are differentiated as variable and fixed, thus categorising them by behaviour. This is evident from the responses given in the affirmative in distinguishing between variable costs and fixed costs and the different applications cited by them.

Table 12.3: Analysis of Management Accounting Practices: Plantation Sector

No.	Stages of Development / Practices	Drifting Stage						Traditional Stage						Quantitative Stage						Integrative Stage					
		Level of Use						Level of Use						Level of Use						Level of Use					
		High		Low		Not used		High		Low		Not used		High		Low		Not used		High		Low		Not used	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	Formulating Business Strategy																								
1	Strategic Management Accounting																			2	20%	8	80%	0	0%
2	Balance Scorecard Analysis																			0	0%	4	40%	6	60%
	Planning and Control Activities																								
3	Standard Costing and Variance Analysis							2	20%	4	40%	4	40%												
4	Target Costing																			0	0%	5	50%	5	50%
5	Budgeting and Budgetary Control							10	100%	0	0%	0	0%												
6	Ratio Analysis	8	80%	2	20%	0	0%																		
7	Job Costing							0	0%	5	50%	5	50%												
8	Process Costing							2	20%	4	40%	4	40%												
9	Cash Flow Forecasting and Planning							10	100%	0	0%	0	0%												
10	Statistical Forecasting Techniques													2	20%	7	70%	1	10%						
	Decision Making																								
11	Absorption Costing							5	50%	3	30%	2	20%												
12	Variable Costing							3	30%	2	20%	5	50%												
13	Activity Based Costing																			1	10%	4	40%	5	50%
14	Decision Models													0	0%	7	70%	3	30%						
15	Linear Programming													0	0%	4	40%	6	60%						
16	Capital Budgeting Techniques													7	70%	3	30%	0	0%						
17	Network Analysis													2	20%	0	0%	8	80%						
18	CVP Analysis													1	10%	8	80%	1	10%						
19	Waiting Line Models													0	0%	0	0%	10	100%						
20	Transportation Models													0	0%	0	0%	10	100%						
	Efficient Resource Usage																								
21	Business Process Re-engineering																			1	10%	8	80%	1	10%
22	Just in Time Systems																			0	0%	9	90%	1	10%
23	Total Quality Management																			0	0%	10	100%	0	0%
24	Management Audits																			7	70%	3	30%	0	0%
25	Life–cycle Costing																			2	20%	1	10%	7	70%
26	Re-order Levels													6	60%	4	40%	0	0%						
27	EOQs													0	0%	6	60%	4	40%						
28	ABC Analysis													0	0%	3	30%	7	70%						
29	Sampling Techniques													0	0%	4	40%	6	60%						
	Performance Improvement and Value Enhancement																								
30	Kaizen Costing																			0	0%	7	70%	3	30%
31	Benchmarking																			7	70%	2	20%	1	10%
32	Value Chain Analysis																			0	0%	8	80%	2	20%
33	Activity Based Management																			0	0%	5	50%	5	50%
34	Performance Evaluation	9	90%	1	10%	0	0%																		
35	Work Study Methods													4	40%	5	50%	1	10%						
	Internal Controls																								
36	Internal Audits							9	90%	1	10%	0	0%												

All the companies use Cash Flow Forecasting and Planning to a high degree. The main methods used for Cash Flow Forecasting and Planning are the preparation of cash flow forecasts, comparison of cash flow forecasts with the actual and the appropriate revisions, preparation of the annual cash budget and daily monitoring of cash balances. The cash flow forecasts are prepared on either a weekly or monthly basis. The comparison of cash flow forecasts is mostly carried out on a weekly basis.

It seems that in most of the companies individual budgets are prepared for each estate. A budget guideline incorporating corporate strategies, plans, goals, and targets for the budget period is sent to all estates. Technical and financial personnel at the Head Office then review the budget prepared by each estate and make necessary adjustments in consultation with the estate management, after which required revisions are made.

All the companies in the study use Cash Flow Forecasting and Planning to a high degree although the *modus operandi* in individual companies varies. For instance, it varies from monthly reviews and revisions of the cash flow statement prepared together with the annual budget to preparing fresh cash flow statements at the beginning of each month and comparison with the actual values on a weekly or daily basis.

A few companies use Target Costing, which is interesting, because it is popularly known as a technique associated with the manufacture of consumables. A few companies use Statistical Forecasting Techniques such as regression and time series analysis extensively in the areas of price and crop forecasting.

The use of transfer pricing is common in this sector as green leaf is transferred from estates where factory facilities are not available to those where such facilities are available. The transfer prices used are mostly market-based and negotiated rates.

Decision Making

Both Absorption Costing and Variable Costing approaches are adopted by the companies owing to the generalised accounting formats used. The most commonly used overhead absorption overhead rate is direct labour hours.

All the companies use formal Capital Budgeting techniques as shown in Diagram 12.3 A. These are mainly used in the purchase of capital items as well as in replanting activities. These companies claim to use a mix of capital budgeting techniques, which include both discounted and non discounted methods of investment appraisal.

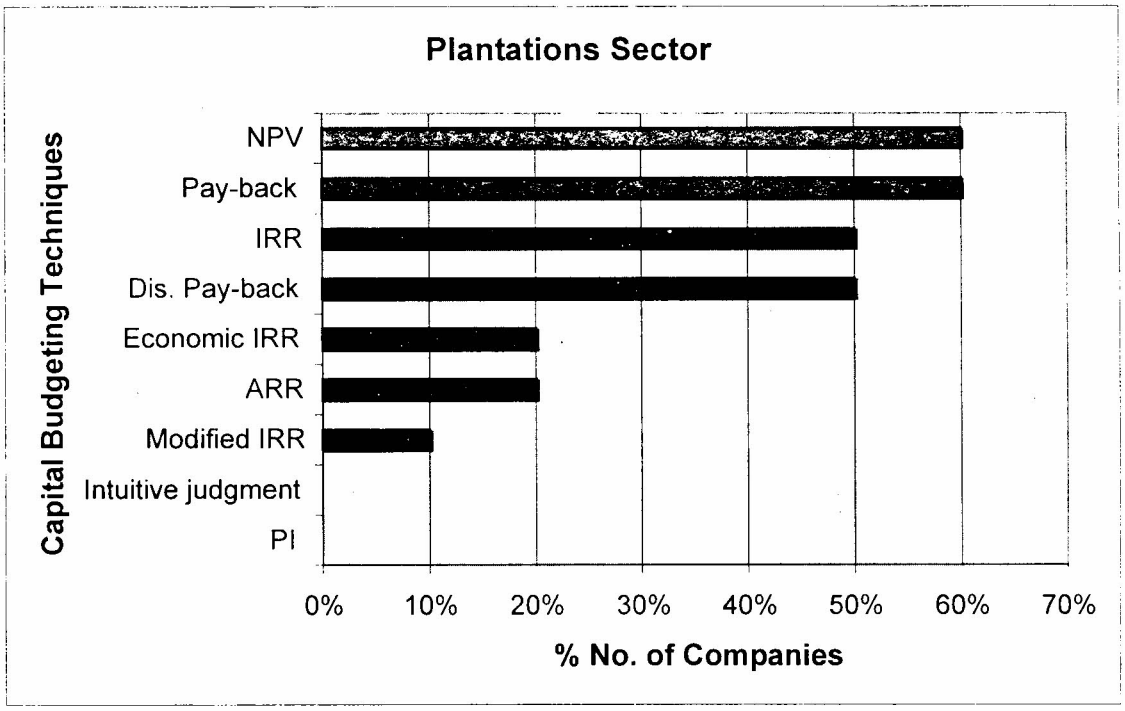


Diagram 12.3 A: Use of Capital Budgeting Techniques

It is observed that even the quantitative techniques that can be used to advantage in the Plantation Sector such as Network Analysis and CVP Analysis are used only minimally. It was also noted that even companies that claim to use these techniques do not seem to understand them adequately.

Efficient Resource Use

Re-order levels are used by the companies in the sector with respect to input material. Re-order Levels, EOQs and ABC Analysis are used, in that order. Just in Time techniques are also used in relation to a few inventory types. It is interesting to note that all companies but one indicated some use of Business Process Re-engineering. One company recorded a very high use of this technique as several radical changes in the manufacturing process had been made. All the companies seem to use Total Quality Management techniques in a limited sense of the term. Management Audits are also fairly common.

Performance Improvement and Value Enhancement

Performance Evaluation, Benchmarking and Work-Study/ Work Measurement methods are the main MA practices used in this area. Almost all the firms carry out Performance Evaluation, whose practice is facilitated by the comprehensive information systems that they possess. Further, seven of the companies Benchmark extensively, particularly in the areas of field and factory operations. Work-Study/ Work Measurement Methods are also used by nine companies with a high level of application in four companies, again in the

same areas of activity. The use of Kaizen Costing, Value Chain Analysis and Activity Based Management is low in all the ten companies.

Internal Controls

Almost all the firms are highly involved in the area of Internal Auditing.

The Most Commonly Used MA Practices in the Sector

The most frequently used practices with the user rates appear in Diagram 12.2 B. Companies in the Plantation Sector make use of ten practices over a wide range of uses. Cash Flow Forecasting and Planning and Budgeting and Budgetary Control lead with a user rate of 100 % for each.

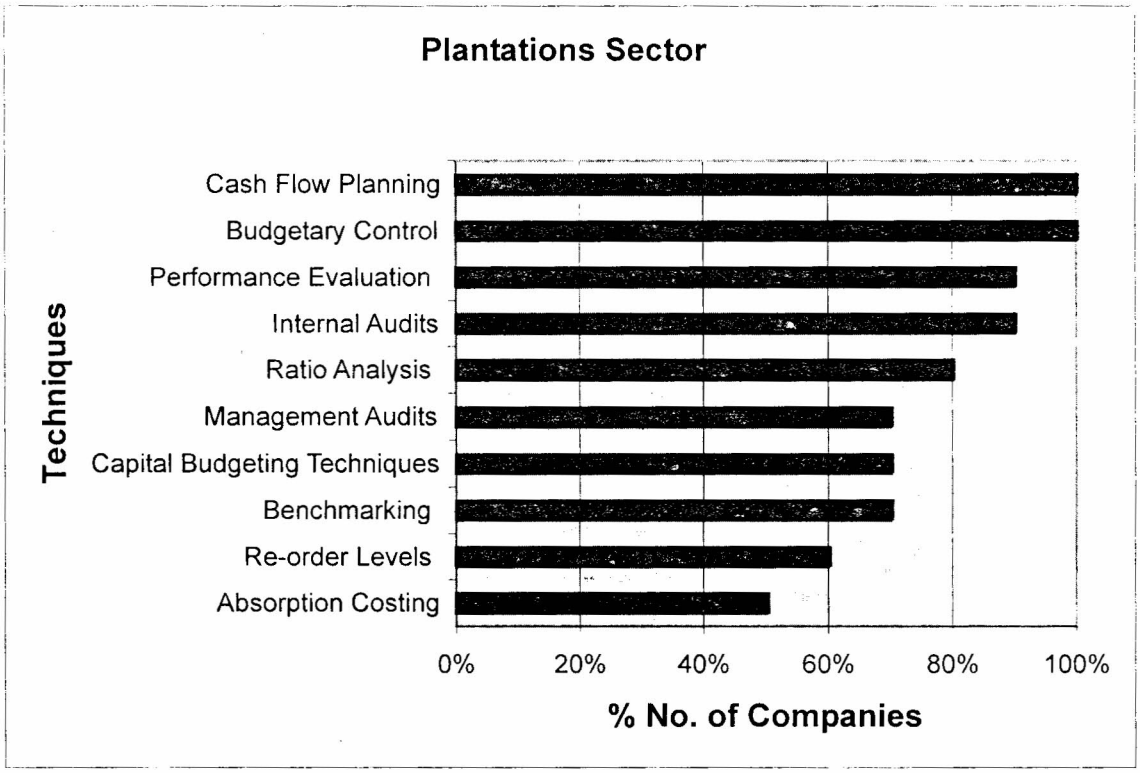


Diagram 12.3 B: Commonly used MA Practices

Summary

Companies in this sector make use of long established and well-developed MA practices that belong to the Drifting Stage and the Traditional Stage. There is much consistency in the practices used by the companies in this sector. This is owing to the homogeneity of operations in the companies and also the similar nature of the managerial effort exerted by management in the companies. These MA practices are rooted in an age-old Management Information System that has its origins in the late nineteenth century. However, there is some evidence of a few isolated practices that fall into the Quantitative

Stage and the Integrative Stage such as Capital Budgeting, Re-order Levels, Management Audits and Benchmarking. In terms of functions, most of the companies focus predominantly on Planning and Control Activities with limited applications in other functional areas.

12.4 Sector Analysis: Manufacturing

Overview of the Sector

Eleven out of the thirty-eight companies in this sector were selected for the study. These eleven companies manufacture a diversity of products: lubricants, porcelain tableware, cables, glass containers, canes and corks, rubber products, natural graphite, soap, electrical goods, oxygen and nitrogen. Only two of these companies (dealing in porcelain tableware and graphite) cater predominantly to the export market while all the other companies focus mainly on the domestic market.

This sector uses a variety of production modes. For instance, Job production is used in the manufacture of canes, corks and retreaded tyres; Batch production is used in the manufacture of glass containers and electrical goods; and, Process production is used in the manufacture of lubricants, porcelain tableware, cables, graphite and soap. The level of automation also varies with the type of product. The level of automation is high in the manufacture of products such as canes, corks, glass containers, lubricants and cables. On the other hand, the level of automation is low in the manufacture of products such as retreaded tyres, electrical goods, porcelain tableware, graphite and soap. The workforce of these companies ranges from 40 to 2,200 employees. In the sector as a whole, competition arises mainly from rival domestic and foreign firms and buyers' bargaining power.

Organization of the Management Accounting Function

Structure

Organisation of the MA function ranges from extremely well developed and specialized structures to very basic structures. The different structures can be broadly classified into two types: a) a separate MA function exists (with different stages of development) under the purview of the Financial Controller/ Finance Director; b) a separate MA function does not exist and any MA needs that may arise are overlooked by the Head of Finance.

In a conglomerate establishment in the sample within a matrix type of structure the Group Management Accountant (assisted by his staff) caters to the MA needs of the many different Strategic Business Units. It is a highly centralized arrangement and the entire Finance function comes within the purview of the Finance Director. In another organization in the packaging industry there are three key persons -the Financial Accountant, Management Accountant and the Cost Accountant- reporting to the Financial Controller. The Management Accountant in turn has a small staff under him. In a number of other organizations too there are persons with designations that suggest that

there are specific MA functions entrusted to them (eg. Senior Manager, Management Accounting).
At the other extreme, a Head of Finance confessed that his company does not develop any specific MA information as such, but depends totally on the routine Financial Statements that are generated. Still others are of the view that MA information is generated by the common pool of accounting staff as and when the need arises.

Users

In most of the companies top management makes most use of the MA information, followed by functional level mangers. Different user groups demand different types of MA information with different degrees of urgency. In the majority of companies the information needs of user groups are determined on the basis of their individual requirements.

Communication

In all the companies management accounting information is communicated within the organization through special reports, on-line reports, computer printouts and confidential reports. In ten of the companies (i.e. the majority) presentations and regular meetings are held in order to discuss MA information.

State of Management Accounting: Analysis by Function

Please refer to Table 12.4

Formulating Business Strategy

Little use of Strategic Management Accounting and still lesser use of the Balance Scorecard Analysis were observed. The interviews revealed that even those companies that claim to use these techniques do so at a very rudimentary level. For instance, they would gather certain information about competitors or develop a few indicators that have some relation with the dimensions of the Balanced Scorecard.

Planning and Control Activities

All the companies but one carry out Budgeting and Budgetary Control and in about half of them a high level of use is observed. The only company that does not prepare budgets, a small fully owned subsidiary of a highly diversified group of companies, attributed it to there being virtually no cost items that are within the company's control. This was because there is absolutely no autonomy in the responsibility centre (subsidiary) except to follow the instructions passed down from the holding company. The companies in the sample are divided in their opinions about the preparation of standards costs for the products. Some of the companies indicated preparation of standard costs though they did not comment on the techniques adopted in the process.

Table 12.4: Analysis of Management Accounting Practices: Manufacturing Sector

No.	Stages of Development / Practices	Drifting Stage						Traditional Stage						Quantitative Stage						Integrative Stage					
		Level of Use						Level of Use						Level of Use						Level of Use					
		High		Low		Not used		High		Low		Not used		High		Low		Not used		High		Low		Not used	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	Formulating Business Strategy																								
1	Strategic Management Accounting																			0	0%	10	91%	1	9%
2	The Balance Scorecard Analysis																			0	0%	4	36%	7	64%
	Planning and Control Activities																								
3	Standard Costing and Variance Analysis							2	18%	8	73%	1	9%												
4	Target Costing																			0	0%	4	36%	7	64%
5	Budgeting and Budgetary Control							6	55%	4	36%	1	9%												
6	Ratio Analysis	3	27%	7	64%	1	9%																		
7	Job Costing							2	18%	1	9%	8	73%												
8	Process Costing							0	0%	3	27%	8	73%												
9	Cash Flow Forecasting and Planning							7	64%	3	27%	1	9%												
10	Statistical Forecasting Techniques													1	9%	5	45%	5	45%						
	Decision Making																								
11	Absorption Costing							4	36%	3	27%	4	36%												
12	Variable Costing							3	27%	2	18%	6	55%												
13	Activity Based Costing																			0	0%	3	27%	8	73%
14	Decision Analysis Models													0	0%	1	9%	10	91%						
15	Linear Programming Models													0	0%	0	0%	11	100%						
16	Capital Budgeting Techniques													3	27%	4	36%	4	36%						
17	Network Analysis													0	0%	1	9%	10	91%						
18	Break-even Analysis													2	18%	7	64%	2	18%						
19	Waiting Line Models													0	0%	0	0%	11	100%						
20	Transportation Models													0	0%	0	0%	11	100%						
	Efficient Resource Usage																								
21	Business Process Re-engineering																			1	9%	6	55%	4	36%
22	Just in Time Systems																			1	9%	9	82%	1	9%
23	Total Quality Management																			0	0%	5	45%	6	55%
24	Management Audits																			2	18%	6	55%	3	27%
25	Life–cycle Costing																			0	0%	1	9%	10	91%
26	Re-order Levels													3	27%	6	55%	2	18%						
27	EOQs													4	36%	5	45%	2	18%						
28	ABC Analysis													0	0%	4	36%	7	64%						
29	Sampling Techniques													1	9%	2	18%	8	73%						
	Performance Improvement and Value Enhancement																								
30	Kaizen Costing																			1	9%	5	45%	5	45%
31	Benchmarking																			0	0%	7	64%	4	36%
32	Value Chain Analysis																			0	0%	0	0%	11	100%
33	Activity Based Management																			0	0%	1	9%	10	91%
34	Performance Evaluation	3	27%	7	64%	1	9%																		
35	Work Study Methods													0	0%	4	36%	7	64%						
	Internal Controls																								
36	Internal Audits							10	91%	1	9%	0	0%												

Almost all the firms expressed the view that their budgets were of a fixed nature prepared according to an incremental approach. Strangely, none of the companies in the sample use the zero-based budgeting approach even in a limited sense. About half of the companies use a centralized approach in preparing budgets while the others adopt a decentralised approach. Most of the companies stated that they paid much attention to finding out the reasons for both favourable and adverse variances. In three companies favourable variances are linked to both financial as well as non-financial incentives. The use of Standard Costing and Variance Analysis is quite common, with two companies practising it extensively. Three companies claimed to have a Standard Costing System that is integrated within the Budgeting and Budgetary Control System.

Most of the companies pay a high level of attention to Cash Flow Forecasting and Planning. The frequency of cash flows range from annual cash flows developed with the annual budget (broken down into months), to quarterly, monthly, weekly and even ad-hoc (as the situation demands) ones. Monitoring of the cash flows is usually done at very short intervals and even daily examination of the cash flows is quite common.

Almost all the companies carry out Ratio Analysis but with varied intensities. The use of Statistical Forecasting Techniques varies from high to nil. One company in the lubricant industry makes extensive use of the technique in forecasting sales in the budgeting process.

Though one would expect a high use of Target Costing in the Manufacturing Sector, the observations belie such expectations. Only four companies admitted to even a limited use of this technique.

Decision Making

Absorption Costing is more prevalent than Variable Costing among companies in the sample. However, four companies stated that they did not use Absorption Costing resulting in non-use of Overhead Absorption rates as well. Among those using Absorption Costing, some use departmental Overhead Absorption rates while others restrict themselves to a single plant-wide Absorption Rate. The Overhead Absorption rates commonly used are based on the number of units manufactured, number of machine hours, number of direct labour hours, raw material cost and cost of manufacture.

It was observed that about half the companies in the sample make use of the Variable Costing method as well. These companies also use Breakeven Analysis and other related CVP analysis applications extensively.

Only seven companies in the sample use Capital Budgeting Techniques while the rest rely more on experience and intuitive judgement in their investment decisions. Diagram 12.4 A shows the extent of use of Capital Budgeting among the companies in the sample.

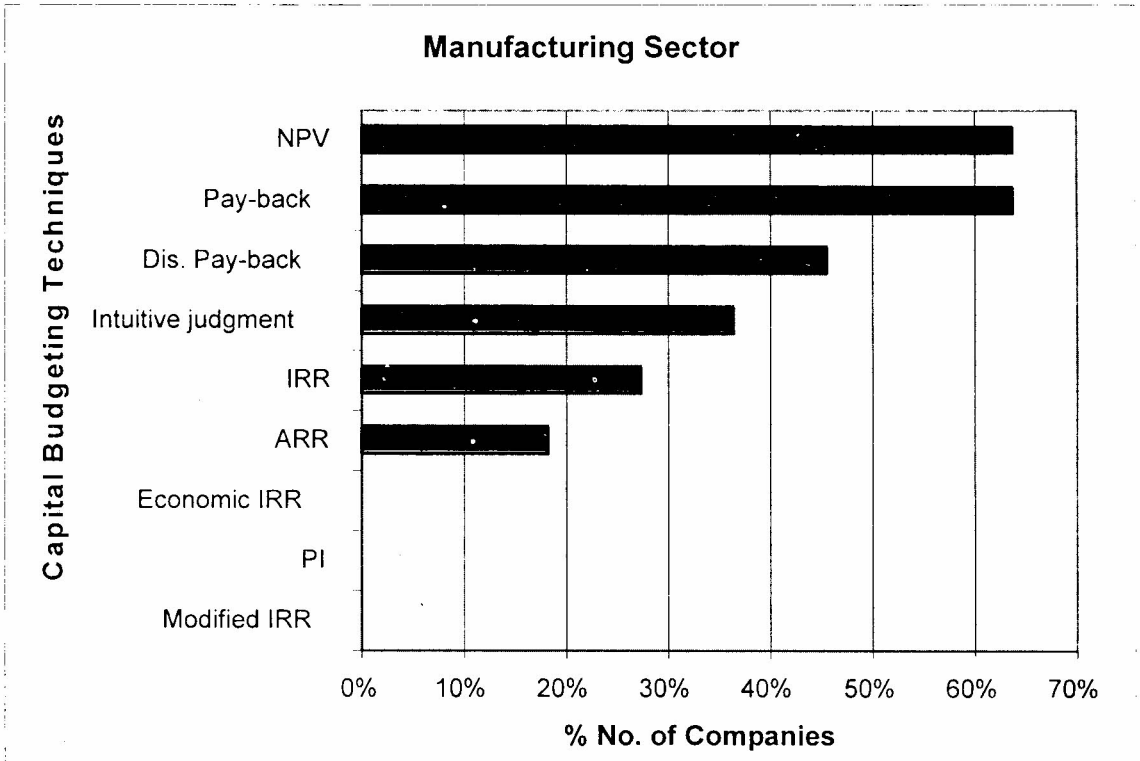


Diagram 12.4 A: Use of Capital Budgeting Techniques

In three companies in the sector dealing with porcelain-ware, rubber and soap application of Activity Based Costing is low. Decision Analysis Models and Network Analysis are hardly used while Linear Programming Models, Waiting Line Models and Transportation Models are not used at all.

About half the companies in the sample make use of Transfer Pricing. They use it for both inter-company (within the group) and intra-company (among responsibility centres within the company) transactions. The methods used are mostly cost-based transfer prices and negotiated transfer prices.

Efficient Resource Use

Inventory control methods are commonly used and also intensively. Three companies indicated a high use of Reorder Levels while four companies expressed a high use of EOQs. It is also interesting to note a high use of Just-in-Time Systems in a company engaged in manufacturing ancillary communication equipment. However, ABC analysis is not a commonly used technique in the sample.

Although one would expect Total Quality Management to be used extensively in the manufacturing sector, more than half the companies are not at all familiar with this concept. Likewise, a few companies use Sampling Techniques in the area of manufacturing related quality control work. A gas producing company makes a high use

of Business Process Engineering and a limited use of Life Cycle Costing. However, details pertaining to the *modus operandi* of these practices are not available. On the other hand, the majority of the companies are not familiar with these two concepts.

Performance Improvement and Value Enhancement

While six companies use Kaizen Costing with one company using it extensively, five do not make use of the practice. Benchmarking is also used only to a limited extent. Further, Value Chain Analysis and Activity Based Management are practices quite unfamiliar to the companies. However, a few companies make use of Work-Study Methods to a limited extent, though one would expect the relevant figure to be quite high in the Manufacturing Sector.

Internal Controls

Almost all the companies use Internal Auditing extensively.

Most Commonly Used MA Practices in the Sector

The majority of the companies use only three techniques Internal Audits, Cash Flow Forecasting and Planning and Budgeting and Budgetary Control, in that order, as shown in Diagram 12.4 B.

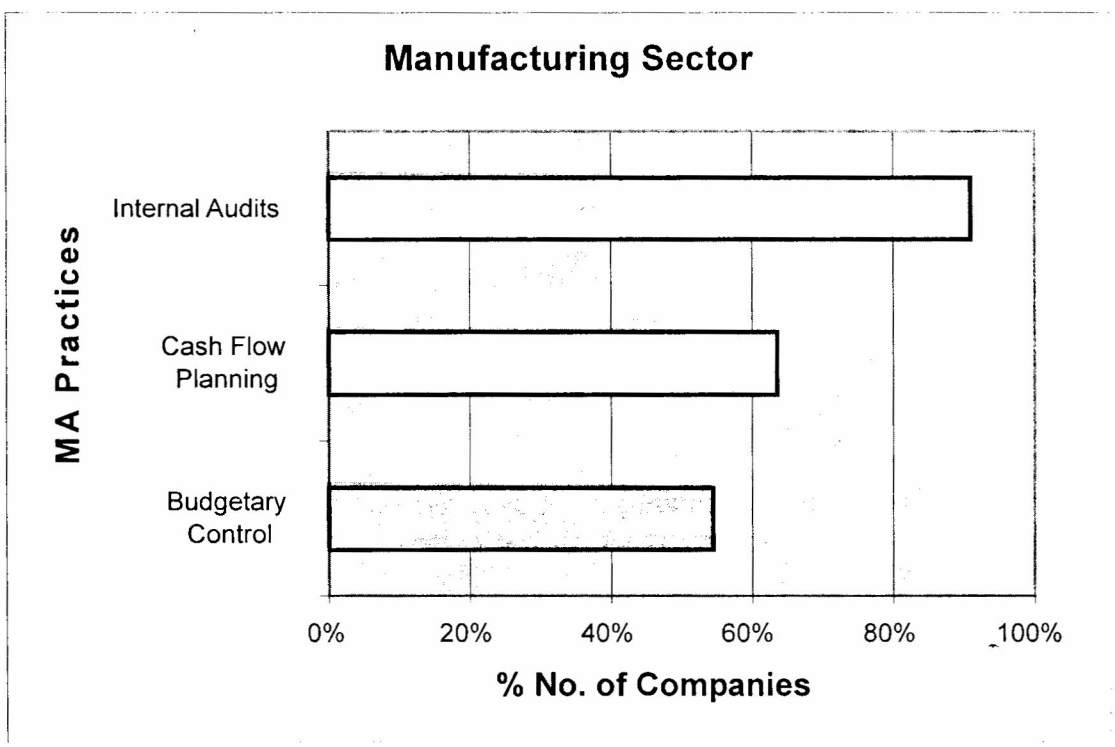


Diagram 12.4 B: Commonly used MA Practices

Summary

The companies vary in terms of age, size, operations, technology used, products offered, and markets served. Therefore, much diversity in the MA practices that are used is to be anticipated. This is clearly observed in the responses received. Taken as a whole, the companies are more inclined to make use of MA practices that belong to the Drifting and Traditional Stages. It is important to note that very limited use of practices that belong to the Quantitative and Integrative Stages is observed. It is also to be noted that in each stage there is a wide variation in the degree to which each practice is used. In terms of functions, the companies fall mainly into Planning and Control with a selective use in Decision Making, Efficient Resource Use and Internal Controls.

12.5 Sector Analysis: Chemicals and Pharmaceuticals

Overview of the Sector

Seven companies out of the ten in the sector - six from the Chemicals Industry and one from the Pharmaceuticals Industry - were selected for the study. The main product lines of the these companies are agrochemicals, industrial chemicals, paints and paint binders, bituminous products, adhesives, batteries, activated carbon, and pharmaceuticals. Two of these companies -one in activated carbon and the other in paint-related chemicals- cater exclusively to the export market while the other five companies mainly focus on the domestic market. Two of the companies - one from the pharmaceuticals industry and the other from the paints and chemicals industry - are affiliates of multinational companies. Further, one of the companies in the sample is a subsidiary of its holding company, which is also included in the sample. They both come under the Chemicals Industry.

These companies mainly use batch and process production types with varying degrees of automation. Companies dealing in paints, chemicals and activated carbon make low use of automated production processes while the pharmaceuticals company uses high-automated production processes. The workforce of these companies ranges from 35 to 420 employees. Based on the survey results, competition in both chemical and pharmaceutical industries arises mainly from rival domestic and foreign firms, availability of only a few suppliers of key inputs and buyers' bargaining power.

Organisation of the Management Accounting Function

Structure

In four out of the seven companies the MA function falls within the purview of the Head of Finance or the Finance Director. As in most of the other sectors, a small MA unit carries out this function in these four companies. In three companies this unit is headed by a Management Accountant and in the other company this position is designated as Costing Manager. In the remaining three companies either the Financial Controller or the Company Accountant directly handles both financial and MA functions. A fair

number of CIMA members hold key positions in the companies where a separate MA unit exists.

The organization of the MA function in the chemical industry is very similar in the holding company and its subsidiary. On the other hand, the multinational company has an extremely elaborate organization of the MA function with much specialization of functions such as Planning and Analysis and Costing. On the whole, compared with some of the other sectors, the MA function seems to be fairly well organized in this sector.

Users

There is strong evidence that MA information is mainly used by the top management followed by functional level managers in fields such as accounting and finance, marketing and pricing, and procurement and inventory control. There was only one company where functional managers (i.e. accounting and finance) and corporate level managers make equal use of MA information. This trend was not observed in other sectors where the user groups varied from company to company in the sample.

Communication

In all the companies MA information is communicated within the organization through the use of reports, regular meetings and on-line computer outputs. In most of the companies presentations are also used.

State of Management Accounting: Analysis by Function

Please refer to Table 12.5.

Formulating Business Strategy

The multinational company from the Pharmaceuticals Sector indicated a high use of the Balanced Scorecard; it is the sole company using this practice. Five companies indicated use of Strategic Management Accounting, which, however, was revealed to be confined to developing limited information in relation to the external environment.

Planning and Control Activities

Budgeting and Budgetary Control and Standard Costing and Variance Analysis are used to a high degree in all the companies, but one. The exception is a newly acquired (from foreign ownership), small, cash rich company for which the urgency to plan and control does not prevail. This company, with its entirely engineering/technology focus, does not engage in Cash Flow Forecasting and Planning either. It considers its right focus pertaining to the fundamentals as the key to success at the bottom line - healthy cash flows. Being confident of a sizeable market share, the company devotes all its energies to meeting standard engineering/quality specifications. It is noteworthy that this company

Table 12.5: Analysis of Management Accounting Practices: Chemicals and Pharmaceuticals Sector

No.	Stages of Development / Practices	Drifting Stage						Traditional Stage						Quantitative Stage						Integrative Stage					
		Level of Use						Level of Use						Level of Use						Level of Use					
		High		Low		Not used		High		Low		Not used		High		Low		Not used		High		Low		Not used	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	Formulating Business Strategy																								
1	Strategic Management Accounting																			3	43%	2	29%	2	29%
2	Balance Scorecard Analysis																			1	14%	0	0%	6	86%
	Planning and Control Activities																								
3	Standard Costing and Variance Analysis							6	86%	1	14%	0	0%												
4	Target Costing																			1	14%	1	14%	5	71%
5	Budgeting and Budgetary Control							7	100%	0	0%	0	0%												
6	Ratio Analysis	4	57%	2	29%	1	14%																		
7	Job Costing							1	14%	1	14%	5	71%												
8	Process Costing							3	43%	2	29%	2	29%												
9	Cash Flow Forecasting and Planning							5	71%	1	14%	1	14%												
10	Statistical Forecasting Techniques													3	43%	2	29%	2	29%						
	Decision Making																								
11	Absorption Costing							6	86%	0	0%	1	14%												
12	Variable Costing							4	57%	2	29%	1	14%												
13	Activity Based Costing																			0	0%	1	14%	6	86%
14	Decision Analysis Models													0	0%	1	14%	6	86%						
15	Linear Programming Models													0	0%	0	0%	7	100%						
16	Capital Budgeting Techniques													4	57%	2	29%	1	14%						
17	Network Analysis													0	0%	0	0%	7	100%						
18	CVP Analysis													5	71%	1	14%	1	14%						
19	Waiting Line Models													0	0%	0	0%	7	100%						
20	Transportation Models													0	0%	0	0%	7	100%						
	Effcient Resource Usage																								
21	Business Process Re-engineering																			1	14%	3	43%	3	43%
22	Just in Time Systems																			1	14%	1	14%	5	71%
23	Total Quality Management																			2	29%	3	43%	2	29%
24	Management Audits																			3	43%	2	29%	2	29%
25	Life–cycle Costing																			0	0%	1	14%	6	86%
26	Re-order Levels													4	57%	2	29%	1	14%						
27	EOQs													4	57%	1	14%	2	29%						
28	ABC Analysis													3	43%	0	0%	4	57%						
29	Sampling Techniques													2	29%	1	14%	4	57%						
	Performance Improvement and Value																								
30	Kaizen Costing																			3	43%	3	43%	1	14%
31	Benchmarking																			3	43%	1	14%	3	43%
32	Value Chain Analysis																			0	0%	0	0%	7	100%
33	Activity Based Management																			0	0%	2	29%	5	71%
34	Performance Evaluation	7	100%	0	0%	0	0%																		
35	Work Study Methods													0	0%	4	57%	3	43%						
	Internal Controls																								
36	Internal Audits							4	57%	1	14%	2	29%												

was awarded a national level productivity award recently. The Finance Manager confessed that the only MA information that it generates is a simple Management Information report to be read by the senior management and a slightly comprehensive report to be read by the top management, on a quarterly basis.

All the companies pay attention to variance analysis against the budget estimates though the rigour of analysis varies. Most of the companies expressed that in the case of adverse variances explanation is called for from the respective heads of the relevant responsibility centres and the responses are analysed. If the explanations provided are valid, the budget targets are duly revised. One company has linked incentives to performance and any adverse variances would automatically affect the bonus earned by the respective employees.

It is interesting to note that five companies use Zero-based budgeting, which is a high proportion of the sample, compared to the use of this technique in other sectors. In one company, which adopts Zero-based budgeting, it is applied only to important (significant or high valued) cost items. The majority of the companies adopt a fixed budget approach. Further, in five companies standard costs serve as the building blocks for preparing budgetary estimates. However, only three companies have a Standard Costing System that is integrated within the Budgeting and Budgetary Control System.

Five companies pay a high level of attention while another company pays a low level attention to cash flow forecasting and planning. The norm seems to be to prepare cash flow forecasts on a monthly basis. An interesting exception is the multinational company that places much emphasis on this activity. They elaborated as to how the company prepares cash flows for each of the Strategic Business Units (SBUs) on a quarterly basis, communicates the monthly requirements to the SBUs and dispatches monthly reviews on performance. At the end of each quarter explanation is called for from the SBUs for any adverse variances.

Most of the companies make use of Ratio Analysis extensively, which often takes the shape of company specific reports. One company from the pure chemicals industry and another from the battery industry make use of Target Costing though not to the full extent advocated in the theory. This is justifiable because they both operate in highly competitive market segments in their respective industries.

Some companies also use Statistical Forecasting Techniques for purposes of budgeting, sales estimation and wage analysis.

Decision Making

Six companies use Absorption Costing in presenting cost information while the other company, which is from the Chemicals Industry, does not. This company with its prices of products being mainly market driven sees no need to prepare product-wise cost estimates, using the Absorption Costing method. However, it is felt that this situation applies equally in most of the companies in this sector. In computing product costs the

majority of the companies use traditional overhead rates based on either the number of units, number of direct labour hours or raw material expenses.

Most of the companies using Absorption Costing prepare cost estimates using Variable Costing as well. This is evident from the statement of five of the companies that they make extensive use of CVP Analysis. Specific CVP applications such as finding the viability of launching a new product and whether to accept a separate order were mentioned. The small, cash-rich company in the Chemicals Industry stated that CVP Analysis applications are not relevant to them due to its extremely high profit levels. For purposes of capital investments it does not use formal capital budgeting techniques, but depends solely on intuitive judgements.

The multinational company in the Pharmaceuticals Sector indicated limited use of Activity Based Costing and Decision Analysis Models. However, Linear Programming Models, Net Work Analysis, Waiting Line Models and Transportation Models are not used in any of the other companies in the sample.

The Capital Budgeting techniques used in the sector are shown in Diagram 12.5 A. The techniques used range from exclusive use of the payback period (in two of the companies) to use of a mix of discounted as well as non-discounted cash-flow methods.

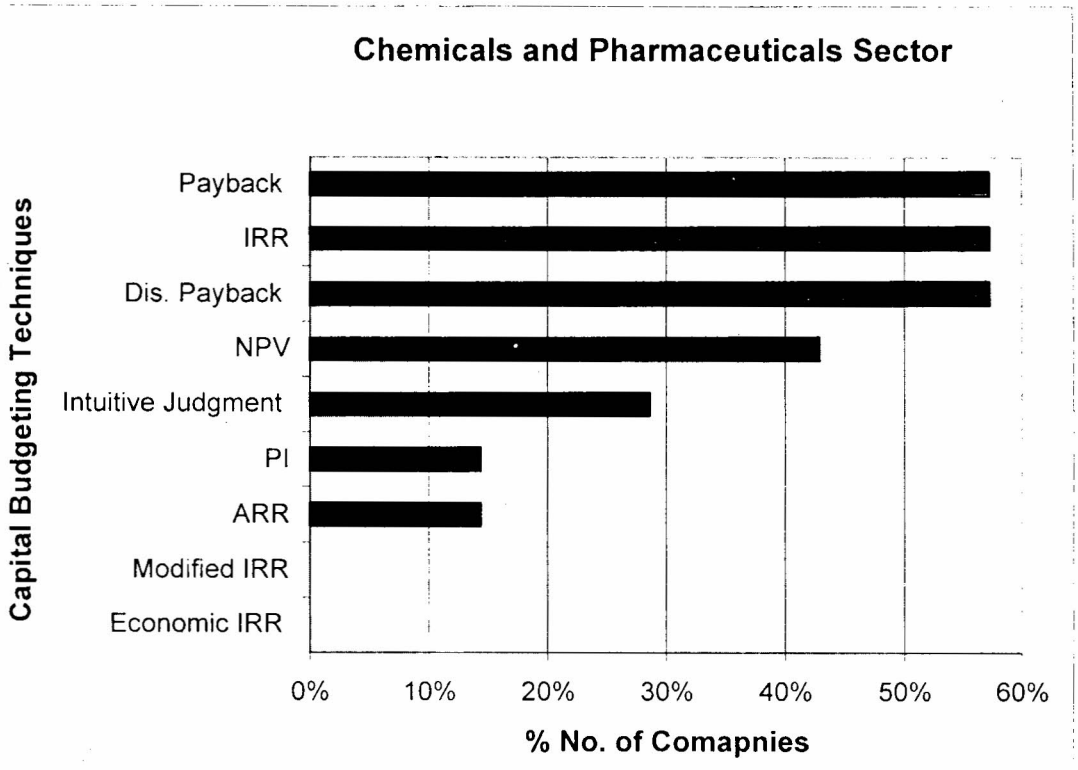


Diagram 12.5 A: Use of Capital Budgeting Techniques

Efficient Resource Use

All the companies in the sample make use of Reorder Levels, EOQs and ABC analysis in varying degrees, in that order. Further, three companies, of which two are multinational companies, have stated a high use of these techniques. Alongside the traditional inventory control practices, a company in the Chemicals Industry has indicated extensive use of Just-in-Time Systems. Further, three other companies have expressed limited use of the techniques, particularly in respect of maintaining inventory levels of a limited number of products.

It was interesting to note that four companies practise Business Process Engineering and one company claims to use it extensively. In this company radical process improvement moves have been initiated by the internal staff, leading to appreciable cost savings.

Extensive use of Total Quality Management practices was mentioned by only two companies, both being the multinationals. There are a few other companies that pay limited attention to this practice. However, it seems that this practice is not clearly understood by some of the companies as two have refrained from commenting on their level of application in the questionnaires.

Diverse views prevail in relation to the use of Management Audits as a MA practice. Three companies use sampling techniques, which are confined to monitoring the output from the manufacturing processes.

Performance Improvement and Value Enhancement

All the companies are engaged in Performance Evaluation extensively. These evaluations take the form of monthly computation of financial and non-financial performance indicators, mostly of a basic type. Kaizen Costing is not carried out in the formal manner prescribed in the theory. But, three companies have stated a high use of the technique, which revolves around effecting incremental process improvements in manufacturing facilities.

Unexpected results emerged in relation to Benchmarking. A few companies, which use some of the modern MA practices, stated that Benchmarking is not relevant for operational purposes. This is an indication that they are not yet familiar with the scope of the concept. Subsequent discussions revealed that by Benchmarking some of the companies refer to the industry standards specified by the Sri Lanka Standards Institution and other similar institutions. However, the company from the Activated Carbon Industry is ardently adhering to Benchmarking in the true sense of the term.

Value Chain Analysis is not practised by any of the companies in the sector while there is a limited use of Activity Based Management in two companies. Though there is immense scope for the use of Work-Study Methods in this sector, they are practised only to a limited extent.

Internal Controls

Strangely, two companies in the sample do not use Internal Auditing.

The Most Commonly Used MA Practices in the Sector

In this sector 11 MA techniques are used extensively. A 100 % user rate is observed in respect of Performance Evaluation and Budgeting and Budgetary Control. The rest of the practices with a user rate of at least 50 % are shown in Diagram 12.5 B.

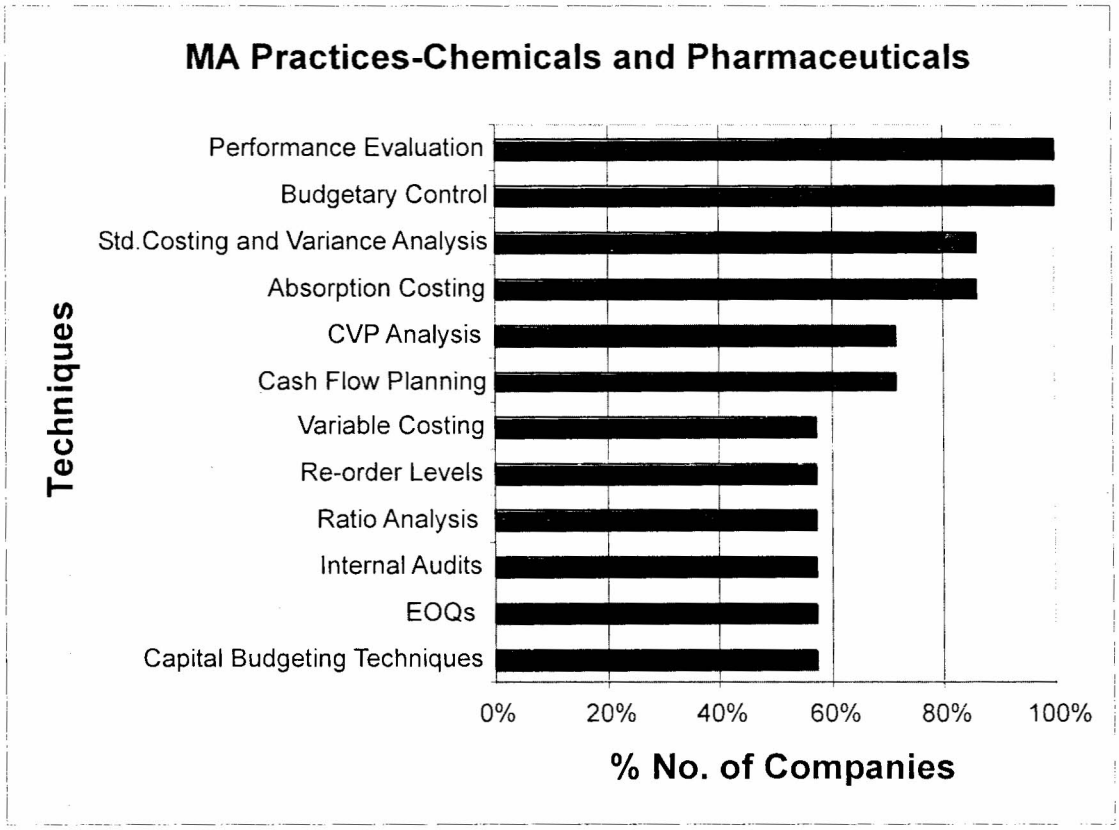


Diagram 12.5 B: Extensively used MA Practices

Summary

The companies in this sector fall predominantly into the Drifting Stage and the Traditional Stage. However, some of the companies display the use of MA practices that belong to both the Quantitative and Integrative stages as well. High use of MA practices is distinctly visible in the case of the multinational companies in the Chemicals Industry and the Pharmaceuticals Industry. In terms of functions there is a heavy inclination towards Planning and Control Activities while there is limited involvement in other functional areas as well.

12.6 Sector Analysis: Construction and Engineering

Overview of the Sector

Two out of the four companies in this sector were selected for the study. The principal business areas of the companies are ship repairs, shipbuilding, heavy engineering, civil and mechanical contracts, piling works, air conditioning and manufacture of tea and rubber machinery. One company extends its services mainly to foreign clients and it is at present working at full capacity. The other company focuses entirely on local clients and is currently working at far below capacity.

In one company job production type is used for ship repair, shipbuilding and heavy engineering, where there is a low level of automation with work accomplished mainly manually. In the other company, however, all the production types - job, batch and process - are used with a low level of automation and/or manual operations. The workforce of these two companies is around 200 and 1,500, respectively. In the ship industry, competition arises mainly from intense rivalry from foreign firms in the trade and also from the few suppliers of key inputs. One of the two companies is an affiliate of a Japanese company whereas at present local investors own the other, which was previously British-owned.

The Management Accounting Function

Structure

In both the companies the MA function falls within the purview of the Head of Finance. A separate MA unit exists in one of the two companies. In this company a small MA team headed by a Cost Accountant carries out the MA function.

Users

The company which is a multinational stressed that functional areas such as Marketing, Accounting and Finance make most use of the MA information whereas in the local company it is mostly used by Corporate Management for policy making purposes.

Communication

The companies use a variety of methods to disseminate MA information such as regular performance/evaluation reports, regular and special meetings, on-line computer outputs, confidential reports and discussions and presentations.

State of Management Accounting: Analysis by Function

Please refer to Table 12.6.

Formulating Business Strategy

Neither of the companies makes use of Strategic Management Accounting and Balance Scorecard Analysis. One company stated that it has never used these practices whereas the other company stated that it had used these methods previously but abandoned them due to the high costs involved in applying them.

Table 12.6: Analysis of Management Accounting Practices: Construction and Engineering Sector

No.	Development stage / The Practice	Drifting Stage						Traditional Stage						Quantitative Stage						Integrative Stage					
		Level of Use						Level of Use						Level of Use						Level of Use					
		High		Low		Not used		High		Low		Not used		High		Low		Not used		High		Low		Not used	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	Formulating Business Strategy																								
1	Strategic Management Accounting																			0	0%	0	0%	2	100%
2	Balance Scorecard Analysis																			0	0%	0	0%	2	100%
	Planning and Control Activities																								
3	Standard Costing and Variance Analysis							0	0%	2	100%	0	0%												
4	Target Costing																			0	0%	1	50%	1	50%
5	Budgeting and Budgetary Control							0	0%	2	100%	0	0%												
6	Ratio Analysis	0	0%	2	100%	0	0%																		
7	Job Costing							1	50%	1	50%	0	0%												
8	Process Costing							0	0%	0	0%	2	100%												
9	Cash Flow Forecasting and Planning							1	50%	1	50%	0	0%												
10	Statistical Forecasting Techniques													1	50%	0	0%	1	50%						
	Decision Making																								
11	Absorption Costing							0	0%	0	0%	2	100%												
12	Variable Costing							0	0%	0	0%	2	100%												
13	Activity Based Costing																			0	0%	0	0%	2	100%
14	Decision Models													0	0%	0	0%	2	100%						
15	Linear Programming Models													0	0%	0	0%	2	100%						
16	Capital Budgeting Techniques													1	50%	0	0%	1	50%						
17	Network Analysis													0	0%	0	0%	2	100%						
18	CVP Analysis													0	0%	1	50%	1	50%						
19	Waiting Line Models													0	0%	0	0%	2	100%						
20	Transportation Models													0	0%	0	0%	2	100%						
	Efficient Resource Usage																								
21	Business Process Re-engineering																			0	0%	1	50%	1	50%
22	Just in Time Systems																			0	0%	1	50%	1	50%
23	Total Quality Management																			0	0%	1	50%	1	50%
24	Management Audits																			0	0%	1	50%	1	50%
25	Life–cycle Costing																			0	0%	0	0%	2	100%
26	Others-Quality Assurance							1	50%	0	0%	1	50%												
27	Re-order Levels													1	50%	0	0%	1	50%						
28	EOQs													0	0%	0	0%	2	100%						
29	ABC Analysis													0	0%	1	50%	1	50%						
30	Sampling Techniques													0	0%	1	50%	1	50%						
	Performance Improvement and Value Enhancement																								
31	Kaizen Costing																			0	0%	1	50%	1	50%
32	Benchmarking																			0	0%	0	0%	2	100%
33	Value Chain Analysis																			0	0%	0	0%	2	100%
34	Activity Based Management																			0	0%	0	0%	2	100%
35	Performance Evaluation	0	0%	2	100%	0	0%																		
36	Work Study Methods													0	0%	1	50%	1	50%						
	Internal Controls																								
37	Internal Audits							1	50%	1	50%	0	0%												

Planning and Control Activities

Neither of the companies carries out Budgeting and Budgetary Control extensively. They prepare fixed budgets, adopting an incremental approach. Further, a de-centralised mode is preferred. Evaluation of budgeted results with the actual results is done on a monthly basis. They use Standard Costing and Variance Analysis to a low degree. However, they are not linked to the Budgeting and Budgetary Control Systems.

Both organizations pay attention to Cash-flow Forecasting and Planning. The cash requirement plans are prepared as part of the annual planning process. The norm seems to be to prepare annual cash forecasts broken down into months and thereafter to review and update them on a monthly basis.

It is interesting to note that the multinational company uses Target Costing. Due to high international competition in shipbuilding and ship repairs, this technique is adopted as a cost reduction measure though at a fairly low level. But due to the company's links with Japan, where this technique originated, one would expect greater use of the technique. A fairly high level of use of Ratio Analysis is also observed in this company.

The multinational company is extensively engaged in Job Costing due to the very nature of their business (shipbuilding and ship repairs) whereas the other uses both Job and Process Costing. In the case of Statistical Forecasting Techniques mixed results were observed: there was extensive use in one company while there was virtually none in the other. It is mostly used for resource management purposes in shipbuilding and heavy engineering activities.

Decision Making

Neither of the companies uses either Absorption Costing or Variable Costing. However, the multinational company has indicated use of CVP Analysis, which indicates its familiarity with the concept of Variable Costing. Both organizations use a single plant-wide overhead absorption rate, based on direct labour.

Neither of the companies uses Activity Based Costing, the reasons being the complex nature of the operations and the envisaged high level of expenditure associated with a change over to a new system. However, one company uses the Activity Based Costing principle to analyse the cost items. Based on this analysis it manages to reduce the volume of overhead by identifying some cost items as direct costs, which had previously been identified as overheads.

The multinational company uses the Discounted Payback and the Net Present Value Methods in Capital Budgeting while the other focuses more on non-discounting methods. None of the companies makes even limited use of quantitative techniques such as Decision Analysis Models, Linear Programming Models, Net Work Analysis, Waiting Line Models and Transportation Models.

Efficient Resource Use

It was observed that the multinational uses techniques such as Business Process Re-engineering, Just-in-Time Systems, Total Quality Management and Management Audit in moderation. This company has been compelled to use Business Process Reengineering extensively in its production-related activities in order to meet aggressive international competition. It also uses several other quality assurance methods such as system improvement and maintenance, inter-divisional (peer) evaluation, and, procedure conformity evaluation extensively. In this company all reporting systems are fully computerized and provide information regarding labour, materials, and sub contracts on a continuous basis in order to carry out monitoring with regard to actual output. On the other hand, the local company has given up a number of previously used MA practices because of the high cost involved and because the company is currently operating at far below capacity.

The multinational company has also stated a high use of Reorder Levels and a low use of both ABC analysis and Just-In-Time Systems whereas the local company does not use any of these techniques in inventory control. Neither of these companies uses EOQs for inventory control purposes.

Life Cycle Costing is an unfamiliar concept in both companies; this is evident from the requests for clarifications about the systems. Sampling Techniques are used predominantly in quality control related work in the multinational company.

Performance Improvement and Value Enhancement

Both firms use Performance Evaluation by preparing company specific reports consisting of quantitative and qualitative indicators. The multinational company conducts division-wise performance evaluation sessions and employees of the high performing divisions (responsibility centers) are rewarded. In this company, Work-Study Methods and Kaizen Costing are also used. But the level of application of these practices is low. Value Chain Analysis and Activity Based Management are not used.

Internal Controls

Internal Auditing is a very familiar concept and it is extensively applied in the two companies.

The Most Commonly Used MA Practices in the Sector

The most frequently used six practices with the user rates appear in Diagram 12.6 A. The multinational company, when compared with the local company, uses the six MA techniques extensively as the following diagram shows.

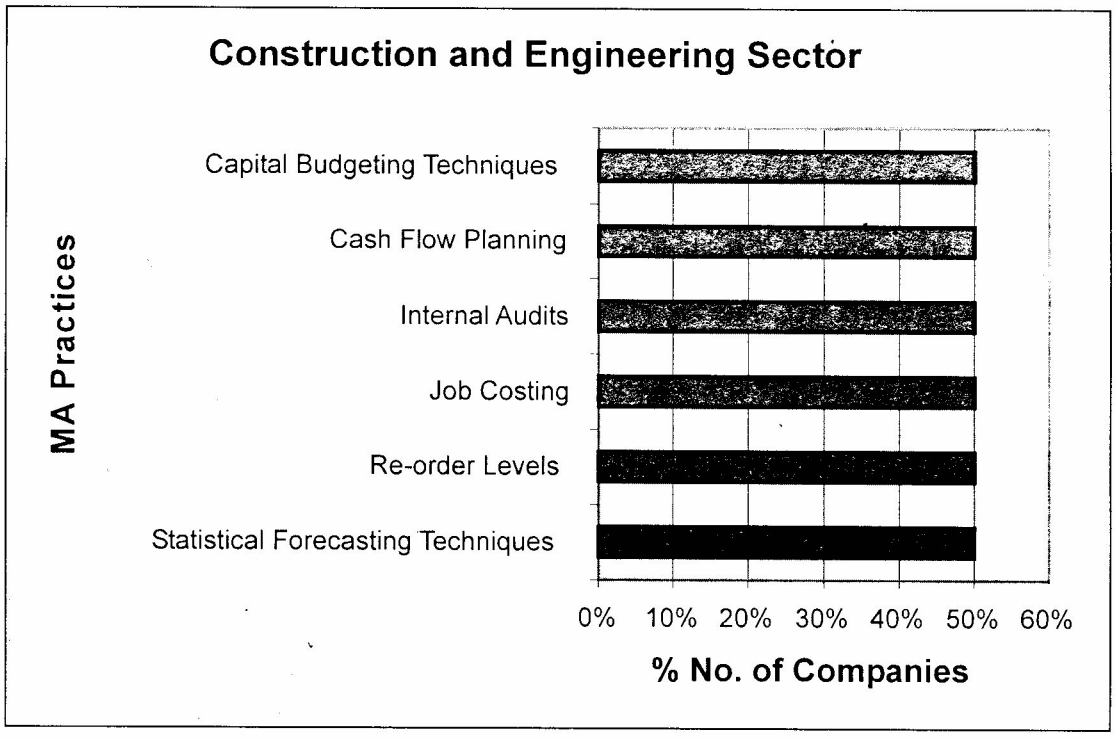


Diagram 12.6 A: Extensively used MA Practices

Summary

There is a vast difference between the MA practices in the multinational company and the local company, which form the sample. The MA practices in the sector falls predominantly into the Drifting and Traditional Stages. In addition, some of the practices in the multinational company fall into the Quantitative and Integrative Stages, but at a moderate level. In terms of functions, the multinational company has MA practices spread over a wide range while the local company concentrates on Planning and Control and Internal Control activities.

13) Inter-industry Comparison of MA Practices

At this stage it is appropriate to compare and contrast the MA practices of the six industry sectors, analyzing them by function. Assessment of similarities and dissimilarities of MA practices across industries and identification of any patterns is the expected outcome of this exercise. Please refer to Table 13, which presents the comparative figures in terms of percentages.

Formulation of Business Strategy

This is a weak aspect right across the six industry sectors, with comparatively better performances in the Beverages, Food and Tobacco Sector and the Chemicals and Pharmaceuticals Sector. The worst scenario is observed in the Construction and

Engineering Sector. Out of the practices listed in this segment Strategic Management Accounting is more commonly used than Balanced Scorecard Analysis.

Planning and Control

A fairly extensive use of MA practices is observed in all the industry sectors. Depending on the type of products/ services offered by the different industry sectors, certain practices will obviously be more appropriate for use than others and therefore high user rates for all the practices may not be possible. However, among the commonly applicable MA practices, Budgeting and Budgetary Control, Cash Flow Forecasting and Planning and Ratio Analysis (in that order) are prominent.

Decision Making

Use of Decision Making related MA practices is more prominent in the Plantations, Beverages, Food and Tobacco, and Chemicals and Pharmaceuticals Sectors. Contrary to expectations, they are deplorably low in the Manufacturing and Construction and Engineering and Sectors. However, in a few sectors these practices are prominent and this is because of a few commonly used practices such as Capital Budgeting Techniques and Variable and CVP Analysis. Overall, in the six industry sectors there is insufficient use of Quantitative Techniques. The overall use of capital budgeting techniques in the six sectors is depicted in the Diagram 13.1.

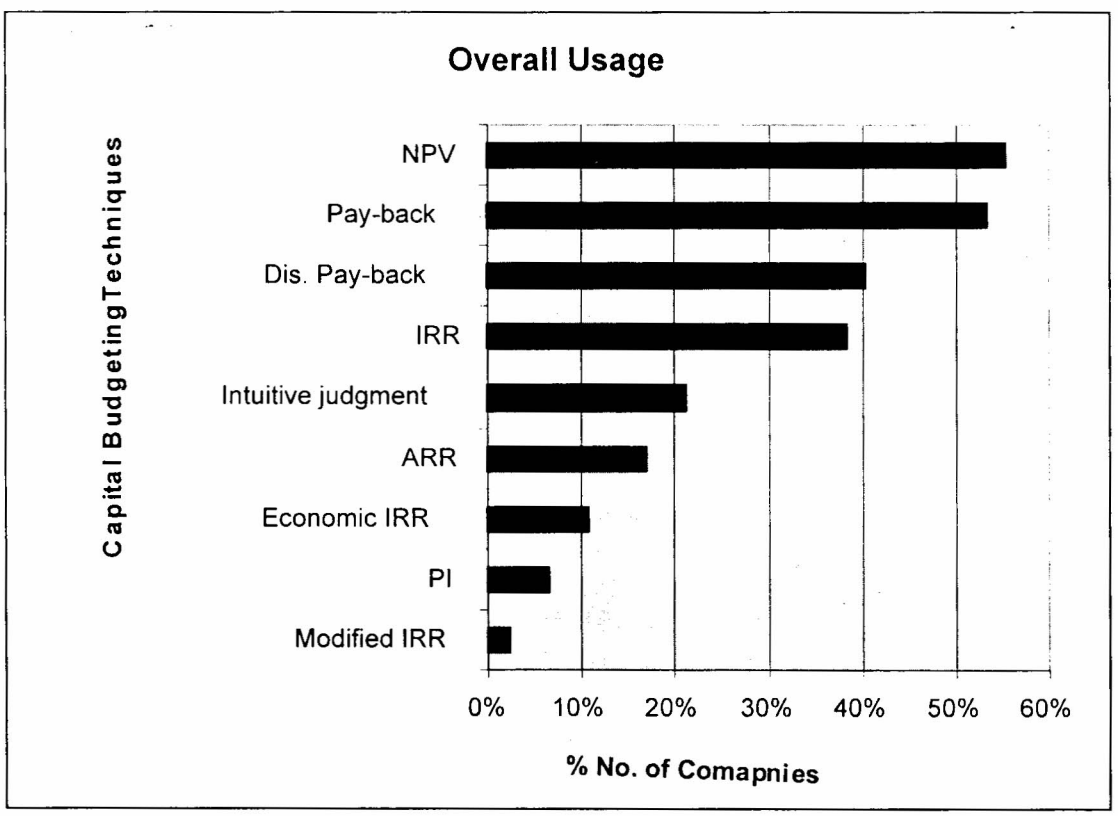


Diagram 13.1: Capital Budgeting in the Entire Sample

Efficient Resource Use

The MA practices in this functional area vary widely across the industry sectors. The variations range from a fair use in the Beverages, Food and Tobacco Sector to a low use in the Chemicals and Pharmaceutical, Plantations and Manufacturing sectors, in that order. Companies in the different sectors are generally strong in the areas of Re-order Levels, EOQs and Management Audits. Life-cycle Costing is virtually absent across the industry sectors while practices such as Total Quality Management and Business Process Re-engineering are also not commonly prevalent.

Performance Improvement and Value Enhancement

Overall, the use of MA practices is at a low level. Performance Evaluation is the only practice that is consistently used across the industry sectors. The Beverages, Food and Tobacco Sector and the Chemicals and Pharmaceuticals Sector followed by the Plantation Sector show a higher use of MA practices, when compared with the other sectors.

Internal Controls

This aspect is fairly strong in all the industry sectors.

Overall Comments

Analyzing by sector, the Beverages, Food and Tobacco Sector and the Chemicals and Pharmaceuticals Sector appear to use a relatively higher degree of MA Practices. However, it should be noted that the distinctly high use of MA practices in the multinational companies in these two sectors have vastly contributed to this phenomenon. The Plantations Sector comes next in terms of both variety and depth of use of the MA practices. The Manufacturing Sector and the Hotels sector, where one would expect a greater scope for a display of MA practices, are disappointing. Owing to the small size of the sample from of the Construction and Engineering Sector it is difficult to comment conclusively on the use of MA practices in this sector.

The findings also indicate that across the industry sectors MA practices are mostly used for Planning and Control and Internal Control purposes. In respect of other functions such as Strategy Formulation, Decision Making, Efficient Resource Usage, and Performance Improvement and Value Enhancement, the use of MA practices is much less and the degree of use varies considerably within the individual industry sectors.

Table 13 : Overall Analysis of Management Accounting Practices

No.	Sector / Practices	Plantation			Hotels and Travels			Beverage,Food and Tobacco			Manufacturing			Chemicals and Pharmaceuticals			Construction and Engineering		
		Level of Use			Level of Use			Level of Use			Level of Use			Level of Use			Level of Use		
		High	Low	Not used	High	Low	Not used	High	Low	Not used	High	Low	Not used	High	Low	Not used	High	Low	Not used
	Formulating Business Strategy																		
1	Strategic Management Accounting	20%	80%	0%	30%	0%	70%	29%	43%	29%	0%	91%	9%	43%	29%	29%	0%	0%	100%
2	Balance Scorecard Analysis	0%	40%	60%	0%	20%	80%	29%	14%	57%	0%	36%	64%	14%	0%	86%	0%	0%	100%
	Planning and Control Activities																		
3	Standard Costing and Variance Analysis	20%	40%	40%	40%	20%	40%	29%	29%	43%	18%	73%	9%	86%	14%	0%	0%	100%	0%
4	Target Costing	0%	50%	50%	0%	40%	60%	57%	0%	43%	0%	36%	64%	14%	14%	71%	0%	50%	50%
5	Budgeting and Budgetary Control	100%	0%	0%	60%	20%	20%	71%	14%	14%	55%	36%	9%	100%	0%	0%	0%	100%	0%
6	Ratio Analysis	80%	20%	0%	40%	60%	0%	43%	57%	0%	27%	64%	9%	57%	29%	14%	0%	100%	0%
7	Job Costing	0%	50%	50%	10%	10%	80%	0%	0%	100%	18%	9%	73%	14%	14%	71%	50%	50%	0%
8	Process Costing	20%	40%	40%	0%	30%	70%	14%	0%	86%	0%	27%	73%	43%	29%	29%	0%	0%	100%
9	Cash Flow Forecasting and Planning	100%	0%	0%	70%	20%	10%	57%	43%	0%	64%	27%	9%	71%	14%	14%	50%	50%	0%
10	Statistical Forecasting Techniques	20%	70%	10%	30%	60%	10%	29%	43%	29%	9%	45%	45%	43%	29%	29%	50%	0%	50%
	Decision Making																		
11	Absorption Costing	50%	30%	20%	0%	50%	50%	43%	14%	43%	36%	27%	36%	86%	0%	14%	0%	0%	100%
12	Variable Costing	30%	20%	50%	30%	30%	40%	43%	29%	29%	27%	18%	55%	57%	29%	14%	0%	0%	100%
13	Activity Based Costing	10%	40%	50%	0%	20%	80%	14%	14%	71%	0%	27%	73%	0%	14%	86%	0%	0%	100%
14	Decision Models	0%	70%	30%	0%	0%	100%	14%	0%	86%	0%	9%	91%	0%	14%	86%	0%	0%	100%
15	Linear Programming	0%	40%	60%	0%	0%	100%	0%	29%	71%	0%	0%	100%	0%	0%	100%	0%	0%	100%
16	Capital Budgeting Techniques	70%	30%	0%	30%	30%	40%	43%	43%	14%	27%	36%	36%	57%	29%	14%	50%	0%	50%
17	Network Analysis	20%	0%	80%	0%	0%	100%	14%	14%	71%	0%	9%	91%	0%	0%	100%	0%	0%	100%
18	CVP Analysis	10%	80%	10%	20%	50%	30%	57%	43%	0%	18%	64%	18%	71%	14%	14%	0%	50%	50%
19	Waiting Line Models	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%
20	Transportation Models	0%	0%	100%	0%	0%	100%	14%	0%	86%	0%	0%	100%	0%	0%	100%	0%	0%	100%
	Efficient Resource Usage																		
21	Business Process Re-engineering	10%	80%	10%	0%	30%	70%	14%	43%	43%	9%	55%	36%	14%	43%	43%	0%	50%	50%
22	Just in Time Systems	0%	90%	10%	0%	0%	100%	14%	57%	29%	9%	82%	9%	14%	14%	71%	0%	50%	50%
23	Total Quality Management	0%	100%	0%	0%	0%	100%	71%	14%	14%	0%	45%	55%	29%	43%	29%	0%	50%	50%
24	Management Audits	70%	30%	0%	30%	40%	30%	57%	43%	0%	18%	55%	27%	43%	29%	29%	0%	50%	50%
25	Life–cycle Costing	20%	10%	70%	0%	0%	100%	0%	14%	86%	0%	9%	91%	0%	14%	86%	0%	0%	100%
26	Re-order Levels	60%	40%	0%	20%	80%	0%	71%	14%	14%	27%	55%	18%	57%	29%	14%	50%	0%	50%
27	EOQs	0%	60%	40%	10%	0%	100%	43%	14%	43%	36%	45%	18%	57%	14%	29%	0%	0%	100%
28	ABC Analysis	0%	30%	70%	10%	0%	90%	14%	0%	86%	0%	36%	64%	43%	0%	57%	0%	50%	50%
29	Sampling Techniques	0%	40%	60%	0%	0%	100%	57%	29%	14%	9%	18%	73%	29%	14%	57%	0%	50%	50%
	Performance Improvement and Value Enhancement																		
30	Kaizen Costing	0%	70%	30%	0%	20%	80%	29%	43%	29%	9%	45%	45%	43%	43%	14%	0%	50%	50%
31	Benchmarking	70%	20%	10%	0%	70%	30%	14%	86%	0%	0%	64%	36%	43%	14%	43%	0%	0%	100%
32	Value Chain Analysis	0%	80%	20%	0%	0%	100%	29%	14%	57%	0%	0%	100%	0%	0%	100%	0%	0%	100%
33	Activity Based Management	0%	50%	50%	0%	0%	100%	29%	29%	43%	0%	9%	91%	0%	29%	71%	0%	0%	100%
34	Performance Evaluation	90%	10%	0%	60%	40%	0%	71%	29%	0%	27%	64%	9%	100%	0%	0%	0%	100%	0%
35	Work Study Methods	40%	50%	10%	0%	0%	100%	14%	86%	0%	0%	36%	64%	0%	57%	43%	0%	50%	50%
	Internal Controls																		
36	Internal Audits	90%	10%	0%	60%	10%	30%	57%	43%	0%	91%	9%	0%	57%	14%	29%	50%	50%	0%

14) The Overall Analysis of MA Practices

It is important at this stage to assess the overall use of MA practices among the quoted public companies operating in Sri Lanka. Diagram 14. 1 depicts the extensively used MA practices taking the entire sample. The practices shown in the diagram is limited to a user rate of 30% or above that has been arbitrarily decided. There are 12 MA practices out of the 36 examined which satisfy this criterion. It is evident that the observations here also confirm the sector wise revelations that MA practices are mostly Planning and Control focussed and belong predominantly to the Drifting and Traditional Stages.

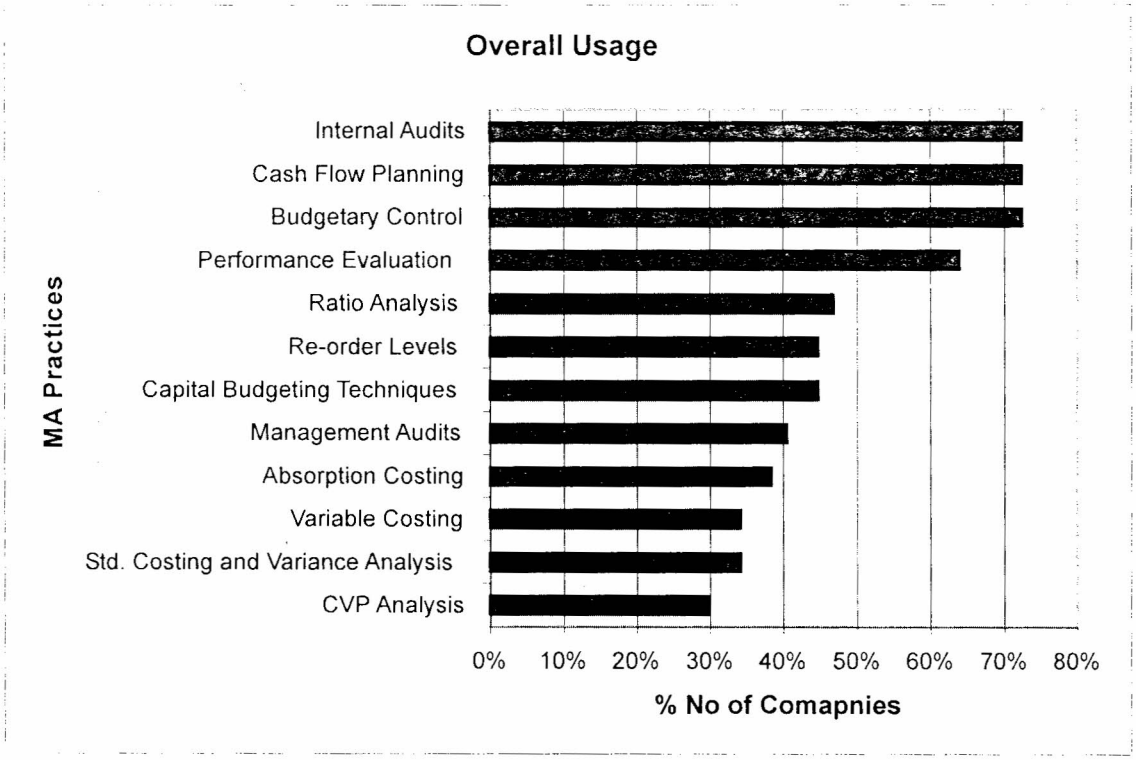


Diagram 14.1: MA Practices in the Entire Sample

15) Emerging Trends

Based on the above analysis of the six industry sectors, the following issues can be identified in the business environment in Sri Lanka:

i) Subservience to Financial Accounting Practices

In most of the companies, the MA function has not developed sufficiently over the years, and remains an arm of the Finance function. In many instances the MA function is left as a unit/division coming within the purview of the Head of Finance and is manned by a few executive and support staff. In others, the MA function is jointly carried out with the FA activities and is restricted to the generation of a few routine reports.

The tasks carried out by CIMA members in these companies are mostly of a general accounting nature and provide little scope for using their specialized knowledge and skills in MA. This necessarily results in a considerable waste of available talent entailing a sizeable social cost. Thus, in terms of the organizational resources consumed, the positions held by Management Accountants in the organizational hierarchy and the time devoted by them to MA remains subservient to Financial Accounting.

Ideally the MA function is expected to be the nerve-centre for the generation and dissemination of information for the different functional disciplines in their planning, decision-making and control activities. Thus, it should operate as a service centre at the corporate level, devoid of bias towards various functional disciplines. In other words, the MA function should have an independent existence that creates an information network encompassing the entire organization. It is the contention of the writers that the MA function at present does not fulfil this role of integration and co-ordination in companies.

ii) **Inherent Bias towards Traditional Modes of Planning and Control**

The analysis reveals that MA practices, which are practised, in terms of diversity and intensity, by and large, fall into the categories of Planning and Control and Internal Controls. It is evident that there is a dearth of MA practices aimed at Formulation of Strategy, Efficient Resource Use, and Performance Improvement and Value Enhancement. This reflects the 'control' culture that is prevalent in Sri Lanka, catalyzed by the phenomenal growth of the Financial Accounting function in companies.

Further, when the state of advance in MA practices is considered they seem to be predominantly in the Drifting and Traditional Stages. However, in these companies there are glimpses of practices that belong to the Quantitative Stages. In addition, a few companies, mostly multinationals, follow practices belonging to the Integrative Stage.

iii) **Lack of Innovation, Learning and Sharing**

The observations made and the discussions held with company executives reveal that Sri Lankan companies lack an environment that promotes innovation, learning, and sharing of knowledge and skills. In contrast, multinational companies seem to be rich in these aspects. Compared with other companies in the sample, they possess developed MA units/divisions with clear MA-based job specifications, and a professionally qualified staff in key positions. Further, there is a wide array of MA practices operative in these companies encompassing the different functions. Although they cannot be considered as totally belonging to the Integrative Stage there is some evidence of an inclination in this direction.

It is also observed that most of the companies are of an introvert nature and would not part with information even of a non-strategic or non-confidential nature. This is evident from the extremely low level of positive responses received when the writers approached the initial larger sample of companies seeking their participation in the study. Furthermore, at the level of completing the questionnaires the majority of the participants, when asked whether they would like to contribute to industry averages for costs and revenues, answered in the negative.

This is in sharp contrast to the experiences in the steel industry in the 19th century, where Andrew Carnegie, the steel magnate, and others contributed to the Bessemer pool to compare cost figures among themselves (Kaplan and Atkinson, et. al., op.cit.). Understandably, this would have been a major hindrance to the growth of MA and a key contributor to the low level of both fundamental and applied research carried out in MA. Availability of industry information will be of immense use companies in their pursuits to be competitive and any efforts made towards this will be opportune.

16) Comparison with Previous Research

This study examined whether there is a gap between the theory and practice of Management Accounting in Sri Lankan businesses. The findings suggest the existence of a considerable gap between MA theory and MA practice. These findings confirm most of the findings of studies from the West and the East and cited earlier. Moreover, there is a close similarity of the present findings with the recent Malaysian studies (Omar et. al., op. cit.; Kamal et. al., op. cit.), two recent studies from this part of the world with likely parallels in socio economic conditions.

17) Possible Reasons for the Gap

There could always be a time lag between developing theory and its use in practice. However, it is obvious that the gap that exists in the Sri Lankan context cannot be explained in terms of this factor. The writers are of the view that the following are the reasons for the observed gap, perhaps with different strengths.

i) Most of the MA theory is based on a set of assumptions (restrictions) on the behavior of costs and markets. It is clear that most of these assumptions do not apply in the Sri Lankan market, which is a highly 'distorted' one. Thus, some of the models that underlie these practices will have to be suitably modified before they are used in the local business environment. This will have to be done by relaxing the relevant assumptions and introducing the necessary constraints. On the other hand, if such modifications are not effected, the results ensuing from the practices may not produce the desired effect.

ii) Some of the MA practices could face a series of implementation problems as indicated by the companies in the sample. The key problem areas are: i) Irrelevance of the practices in their particular businesses; ii) Lack of human resources, knowledgeable and skilled in the respective MA practices; iii) High costs involved in the changeover from the present system; and iv) Resistance to a changeover from the present system.

Discussions with the company representatives also revealed a lack of clarity about the concepts as a major impediment. For instance, the companies have only a vague understanding of modern MA practices such as Strategic Management Accounting, Balanced Scorecard, Business Process Re-engineering, Activity Based Costing, Activity Base Management, Life Cycle Costing, Just-In-Time Systems, ABC Analysis and Total Quality Management. Though some executives are aware of these practices because of their past academic pursuits as well as exposure at workshops and seminars, they are not confident enough to adopt them in their own business situations. This requires a re-examination of the methodologies adopted in the numerous teaching and training efforts in order to understand why internationalization of the MA practices has not been accomplished. Perhaps, 're-engineering' of the currently used teaching methods is an urgent need.

iii) The local business community strongly contends that organizations could achieve excellent results without the use of any of the modern MA practices. On the other hand, there is also the view that the use of MA practices does not necessarily ensure better performance. The Sri Lankan business arena, with its characteristic distortions of market forces resulting in uneven competition as well as corrupt practices, is said to be heavily influenced by personal relationships. In such a scenario one could always question the prudence of incurring additional costs in terms of time, effort and resources when competitive advantage could be secured through easier means, at least in the short run. Therefore, these extraneous forces could also hinder the use of MA theory in practice.

18) In Search of Roots

The findings of the study show that MA practices are not deep rooted in most of the companies in Sri Lanka. The companies where MA practices are well established happen to be mostly multinationals who are guided by the foreign holding companies with developed MIS systems. It is the contention of the writers that this could be attributed mainly to attempts to 'transplant' a set of alien techniques hastily without letting them evolve gradually according to the needs of the local business community.

All the MA practices except a very few have been formulated in the West as a response to political, economic, social and technological changes that have been taking place in those countries. The business environment in Sri Lanka is vastly different to that in the western countries and even to countries in the Far East and therefore would have created problems in the areas of relevance, resource requirements and organization, and

the mental disposition of implementers. The Sri Lankan culture would have played a decisive role here.

Japan, a prominent Eastern nation, having realized such potential impediments of strictly following the Western way of Management Accounting, went their own way and developed their own set of MA practices that even Westerners have now accepted and tend to emulate (Toshiro 1988; Monden and Sakurai, 1989; Bratton, 1994; Cooper, 1996;). This process evolved over a period of about three decades, starting in the early sixties when Japan was still dependent on the West for its recovery in the post-second world war period. Thus, what ultimately triumphed was influenced by what is happening in other parts of the world but developing one's own systems to suit one's own circumstances.

In contrast, in Sri Lanka, large doses of foreign based MA practices have been infused all the time, mainly though educational programmes, which are of course a worthy and much needed effort. But while being receptive to the winds of the world's MA practices there has hardly been any effort to develop indigenous practices aligned with our business environments. In this respect, it is important to note that there has been considerable progress in the area of Financial Accounting and Reporting, which perhaps could be attributed to the ever increasing statutory requirements, the bourse, and lending organizations.

In the evolutionary process of working towards an indigenous system of MA practices the following areas merit serious consideration:

i) Integration: It is imperative to have an integrative approach to imparting knowledge and skills, as well as working in organizations. In Sri Lanka one observes an overwhelming desire among people to operate in watertight compartments. Educational subjects are taught in separate slots and virtually no effort is made to help the learners to draw from various disciplines and to ensure a synergistic impact. For example, a student of MA, in most instances, will not be in a position to deal with a Cost-Volume-Profit exercise involving non-linear cost functions under multi-constraints although the basic theory has been imparted to them in different courses of study. Likewise, in organizations, identification by functional disciplines is preferred over inter-disciplinary teams, although this trend seems to be declining.

ii) Recording of Experiences: In Sri Lanka there is a dearth of case studies recording local MA experiences. Both students of MA as well as Management Accountants have to solely depend on foreign experiences for guidance as well as inspiration. In this respect the academic community should play a sheet-anchor role where together with the support of organizations it can prepare such case studies and associated literature. However, in order to do this the existing vicious cycle has to be broken, where there is much resistance by organizations to narrate their experiences for use by outside parties. Further, such 'live examples' facilitate the internalization of the theoretical concepts and preparedness to practise them.

iii) Establishing Central Information Systems: It is necessary that every organization should establish a central information system that serves the information needs of the different functional units/divisions in the organization. Thus, the MA function should be released from the shackles of the Finance function, which seems to be the norm at present, and made a separate function with an independent corporate level existence. In addition, to encouraging an integrative approach to searching for information needs of the organization as a whole such an arrangement is likely to save costs considerably. The latter can come through a search for better information while lessening duplication. Further, it would greatly motivate the MA staff to be more innovative and receptive when compared with the 'behind the stage' role they play at present in most organizations.

19) Directions for Future Research and Conclusions

Though the above factors may influence the observed gap between MA theory and MA practice, what are the relative magnitudes of their influence? What is the impact of MA practices on organizational performance? How are MA practices actually implemented in high performing companies? What are the current perceptions of the CEOs of the relevance and usefulness of MA practices in the Sri Lankan context? These are directions for future research, which should draw the urgent attention of academics as well as practitioners of Management Accounting.

The findings of this study suggest that the existence of a considerable gap between MA theory and MA practice in business in Sri Lanka merits the attention of both academia and the business community alike. This gap entails costs on two fronts: firstly, the nation fails to enjoy the benefits that should accrue to it if this gap could be narrowed; secondly, considerable expenditure is incurred annually to contribute to a state that gives rise to such a gap. Steps have to be taken to arrest this situation without delay. In order to do this, understanding the core issues rather than peripheral issues is of vital importance. This paper is an attempt in this direction. Those having a stake in Management Accounting cannot possibly shirk the responsibility of re-examining their role and practices and initiating necessary remedial action. The survival and future growth patterns of Management Accounting in Sri Lanka, in particular, will largely depend on the commitment and urgency with which key issues are attended to.

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Annex I

Quoted Public Companies included in the Study

The following Quoted Public Companies permitted disclosure of their names.

Agalawatte Plantations Ltd.
Bogawantalawa Plantations Ltd.
Ceylon Tobacco Ltd.
Chemenex Ltd.
Colombo Dockyard Ltd.
Confifi Group of Hotels Ltd.
Hapugastenna Plantations Ltd.
Harischandra Mills Ltd.
Kapila Heavy Equipments Ltd.
Madulsima Plantations Ltd.
Richard Pieris Ltd.
Serendib Hotels Ltd.
Soy Foods Ltd.
The Lion Brewery Ceylon Ltd.
Union Chemicals Lanka Ltd.

Annex II

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Annex III

Form A1

Survey on Management Accounting Practices in Quoted Public Companies in Sri Lanka

A CIMA Research Project

The Questionnaire

Introduction

i. We thank you for agreeing to participate in the above Survey.

ii. This questionnaire consists of four sections; Section A: General Information, Section B: Management Accounting Practices, Section C: Management Accounting Function and Section D: Selected Practices.

iii. It would be useful to run through the entire questionnaire prior to filling it. This will give you a clear idea about our expectations pertaining to the survey.

iv. In responding to the questionnaire please focus on the activities of the organization where you are attached [and not on the holding company or the subsidiaries (if applicable)].

v. In respect of certain questions the appropriate response (in respect of your Organization) may not be among the suggested answers. In such situations please be kind enough to state your response under the 'Other (specify).'

vi. If there are any services offered by your organization please include them as products for the purpose of filling the Questionnaire

vii. We shall be pleased if the Survey Questionnaire is be completed under the guidance of the Chief Financial Officer/Executive who will have the overall responsibility for the Management Accounting Function in the Organisation

viii. Please note that performance of an organization is *not necessarily* associated with existence of specific Management Accounting practices that are listed in the questionnaire.

ix. Responses will take the form of ticking off (with or without ranking) and providing brief explanations.

x. Responding to the questionnaire will ideally take about 45 minutes. We hope that you will kindly oblige.

xi. The information sought through this questionnaire will basically be of a non-confidential nature that will be used only for the academic purpose specified in our communication to you. In using the information complete anonymity of the organization will be maintained.

Section A: General Information (Q1-Q6)

Q1:
Name of your Organization

Name of the Holding Company (if applicable)

Other Linkages

No. of Subsidiaries in related industries	
No. of Subsidiaries in unrelated industries	
Total no. of Subsidiary Companies	

Q2:
List the five current major products/product lines in revenue terms expressed as approximate percentages. (Total will not necessarily add up to 100)

Product/ Product line / Service	*%*

Q3:
State the current revenue percentages by markets

Type of market	*%*
Domestic Sales	
Export Sales	

Q4:
The current permanent work force (approximate nos.) in the Organization.

Type	**Total**	**Male**	**Female**
Managerial (inclusive of supervisory grades)			
Skilled workers			
Non-skilled workers			

Q5:
Referring to Question no. 2, identify the cell/cells applicable to the top three products/product lines of your Organization in the grid given below.

Product/product line (1) ----------

Production type	*Job*	*Batch*	*Process*	*Other (specify)*
High Automation				
Low Automation				
Manual				

Product/product line (2)----------

Production type	*Job*	*Batch*	*Process*	*Other (specify)*
High Automation				
Low Automation				
Manual				

Product/product line (3) ----------

Production type	*Job*	*Batch*	*Process*	*Other (specify)*
High Automation				
Low Automation				
Manual				

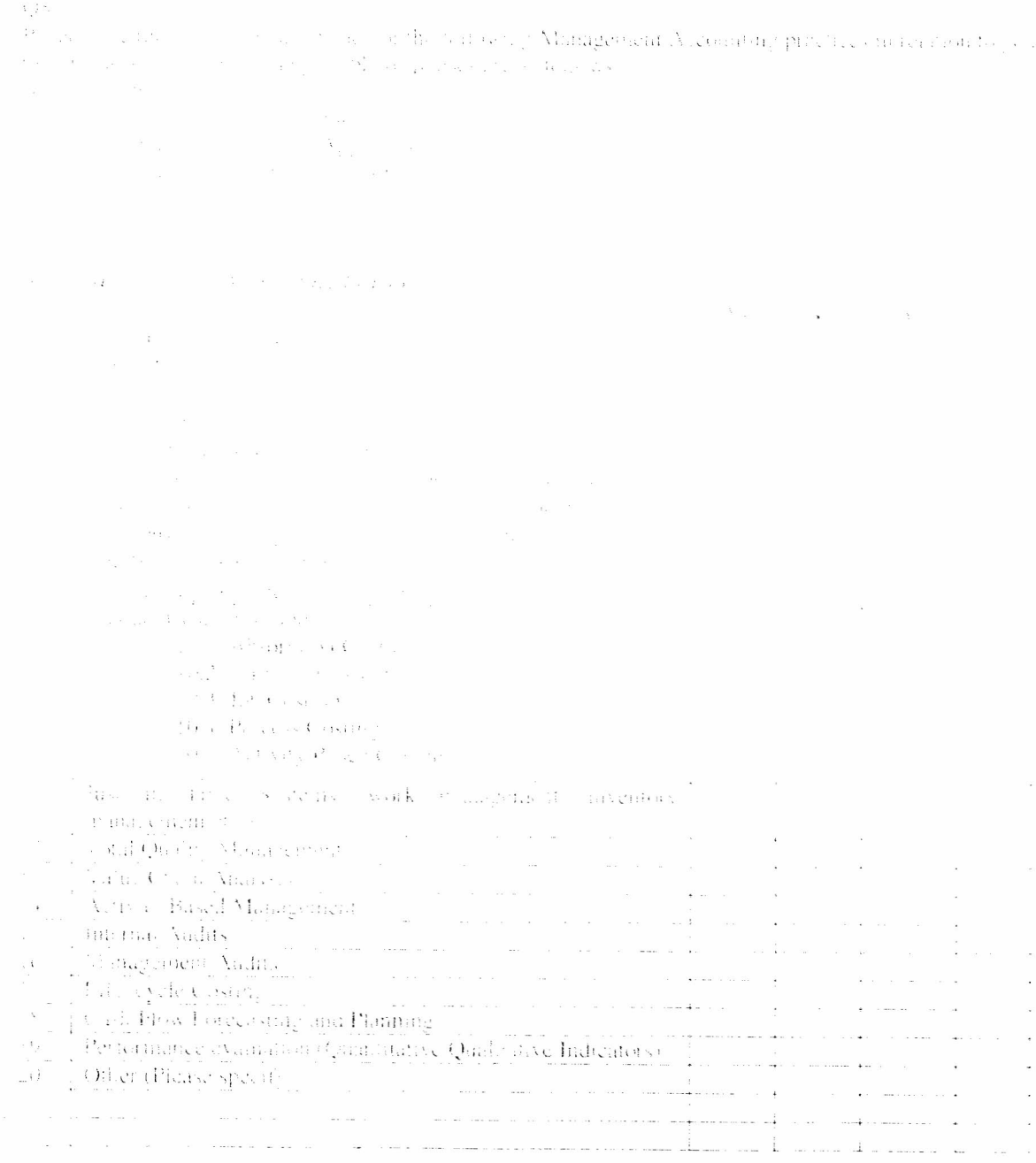
Q6:
Specify the current degree of industry competition faced by your Organization in respect of key products/product lines. Please tick off the relevant cell in respect of each competitive force.

Competitive force arising due to:	***High***	***Low***
Rivalry among competing domestic sellers		
Rivalry among competing foreign sellers		
Firms in other industries offering substitute products		
Suppliers of key inputs		
Potential new entrants		
Buyers bargaining power		

Q7:
Which of the following represents the basic orientation of your Organization? Please tick off.

Enhance revenue through performing better in respect of product *price*, *quality* (conformance with product specification) and *functionality*(designing the product to meet the specifications that customers require)	
Reduce costs through better cost planning and implementation and control	
Both, enhancing revenue and reducing costs	
No specific orientation as such	

Section B: Management Accounting Practices (Q8-Q11)



Q9:

In respect of Management Accounting techniques that have never been in use (identified above) tick off the causal factors for the status observed. You may add causal factors to the list, specifying them as I, J etc. The key to possible responses is as follows:

D = Due to non-relevance for operational purposes

E = Due to cost effectiveness consideration

F = Due to lack of awareness about the practice

G = Due to lack of human expertise

Please specify (any additions):

H =

I =

J =

M.A. Practice (Refer the No in Q8)	D	E	F	G	H	I	J

Q10:

In respect of Management Accounting techniques that have been in use but abandoned now (identified above) tick off the key causal factors for the status observed. You may add causal factors to the list, specifying them as O, P, Q etc. The key to possible responses is as follows:

K = Due to outdated nature in view of more effective practices that are currently available

L = Due to cost effectiveness considerations

M = Due to difficulties in comprehending and making use of the practice

N = Lack of interest shown towards the practice lately

Please specify (any additions):

O =

P =

Q =

M.A. Practice (Refer the No in Q8)	*K*	*L*	*M*	*N*	*O*	*P*	*Q*

Q11:
Which of the following Decision Support Techniques (DSTs) are presently used in your organization? State the degree of use (High, Medium, Low) and a purpose for which each of these techniques is used.

DSTs are tools that facilitate adoption of Management Accounting Practices. However, depending on the Organizational arrangements, there could be DSTs that are being used, but, not coming within the 'official' purview of the Management Accounting function. Please include such DSTs as well, but identifying separately, with an asterisk

Decision Support Technique	***Degree of use***			**Not in Use**	***Purpose of Use***
	High	***Medium***	***low***		
Statistical Forecasting Techniques					
Inventory Control Techniques Re-order Levels EOQs ABC Analysis					
Decision Analysis Models (inclusive of states of uncertainty)					
Linear Programming Models					
Capital Budgeting Techniques					
Network Analysis					
Sampling Techniques					
Break-even and Sensitivity (CVP) Analysis					
Waiting Line Models					
Work-Study/Work Measurement Methods					
Transportation Models					
Other (Please specify)					

Section C: Management Accounting Function (Q12-Q22)

Q12:
Is there a separate Department/Division/Unit to handle the work related to Management Accounting in your Organization?

Yes	
No	

If the answer to the above question is *yes*, please draw a chart (in the space provided below) specifying the hierarchy of the Management Accounting Department/Division together with numbers and the educational/ professional qualifications of the personnel attached to it. *Please note that the names of individuals are not required.*

Q13:
If there is no separate Management Accounting Department/Division/Unit in your Organization how is the function of Management Accounting looked after? Please tick off.

Each of the Functional Departments manages its Management Accounting needs	
Its overlooked by the Financial Controller depending as and when the need arises	
There is no need for specific Management Accounting information	
Financial Accounting information is used for this purpose by the Functional Departments	
Other (Please specify)	

Q14:
Rank the following key Management Accounting information user groups (department or function) of your organisation in the order of priority (give 1 for the highest user group)
Specify an example under each user group. *Please note the example given below.*

User group(Department or Function)	***Rank***	***Example***
Accounting		
Finance		
Marketing		
Procurement and Inventory Control		
Production		
Quality Management		
Research & Development		
Corporate Management The Board of Management The CEO		
Pricing		
Human Resource Development		
Other (Please specify)		

eg. Production: Weekly report indicating units produced with defects, and reworked.
Marketing: Monthly report of customer complaints about a product.

Q15:
Specify the type of relationship maintained by the Management Accounting Department/Division/Unit (if any) with the different 'information user groups.'

1. Management Accounting needs are determined centrally by the Management Accounting Department/Division/Unit on its own initiative	
2. The different user groups notify their Management Accounting needs to Management Accounting Department/Division/Unit	
3. Both (1) and (2)	
Other (Please specify)	

Q16:
Which of the following describes the Management Information System in your Organization best? **Please tick off**

Management Information System Type	***Mainly Manual***	***Mainly Computer based***	***Both***
Uses Financial Accounting information, and, takes a historical approach			
Uses Financial Accounting information, and, takes a predictive approach			
Contains Management Accounting information, and, takes a historical approach			
Contains Management Accounting information, and, takes a predictive approach			

Q17:
How is the Management Accounting information communicated within the Organization? Tick off the relevant modes (extent of use) and give an example for each of them.

Information Dissemination Mode	Degree of Use			*Not in Use*	*Example*
	High	Medium	low		
Regular performance/evaluation reports					
Ad-hoc performance/evaluation reports					
Special performance/evaluation reports					
Working papers					
Regular meetings					
Special meetings					
On line computer outputs					
Confidential reports and discussions					
Presentation					
Other (Please specify)					

Q18:
Rank the following managerial layers in your organizational hierarchy in the order in which they make use of Management Accounting information. Give 1 to the layer that makes most use of information.

Hierarchical Level	*Rank*
Top (Policy making) level	
Functional (Departmental) level	
Operational (Shop-floor) level	

Q19:
Is the formulation and use of Management Accounting information done with the same rigour across Strategic Business Units (SBUs), or, is it dependent on the individual SBU? Please tick off.

Note: A SBU is a profit *centre that looks after a single business or collection of related businesses that can be planned separately.*

Same rigour for all SBUs	
SBU specific	

In case some SBUs make use of more Management Accounting information than others, could you state why.

Q20:
Which of the following statements is most appropriate in respect of your Organization? Please tick off.

High priority is given to Financial Accounting practices when compared with Management Accounting practices	
High priority is given to Management Accounting practices when compared with Financial Accounting practices	
High priority is given to both Financial and Management Accounting practices	
Low priority is given to both Financial and Management Accounting practices	

List major contributory factors for the observation above.

Q21:
To what extent will your Organization be open to sharing of detailed cost and revenue information for a research pursuit organized by Sri Lankan Universities that may have benefits (e.g. Benchmarking) to you as well as the industry, both in the short and long run.

a) Fully	
b) Partly	
c) Not at all	

In case your response to the above is either (b) or (c) will you please state why?

Q22:
Do you think your Organization will agree to be a member of a Bureau that collects and processes cost and revenue information and thereafter prepares and distributes comparative industry level information among its members on a regular basis, for the benefit of members? Please tick off.

Yes	
No	

In case your response to the above is *no* will you please *state* why?

Section D: Selected Practices (Q23-Q40)

Budgetary Practices (Q23 – Q30)

Q23:
Do you prepare standard costs in respect of your products?

Yes, in respect of all	
Yes, in respect of some	
No, in respect of none	

In case you do prepare standard costs what techniques do you use in the process?

Q24:
In case standard costs are prepared, how often do you revise the prepared standards? Please tick off.

Periodic reviews and revisions are made	
When variances are high	
When external parameters vary significantly	
Other (Please specify):	

Q25:
Which of the following approaches are applicable in respect of your annual Budget preparation process. Please tick off the statements relevant to your Organization.

Budget Practices	Yes/No	Remarks
The standard costs serve as the building blocks in preparing the budgetary estimates		
A zero-based budgeting approach is adopted		
A fixed budget (based on a single level of activity) is prepared		
A flexible budget is prepared		
An incremental (addition to last year's figures) budgeting approach is adopted		
A rolling budget is prepared		
Its considered more as a customary practice than a policy statement about the ensuing year.		
It's considered an important policy statement about the activities of the ensuing year.		
A centralized approach is adopted		
A de-centralized approach is adopted		
Other (Please specify):		

Q26:
What is the normal time period taken for the annual budget preparation process?

Weeks

Q27:
Do you have an organization-wide policy for comparison of actual results against the budgeted, or is it dependent on the Departments/Functions? Please tick off.

Company–wide policy	
Dependent on Departments/Functions	

In case you have a company-wide policy, how often do you compare actual results against the budgeted? Please tick off one option only.

Annually only	
Semi-annually	
Quarterly	
Monthly	
Weekly	
Other (Please specify)	

In case the frequency of comparison is dependent on Departments/Functions tick off the relevant cells, in respect of the following functions (as applicable to you).

Frequency	**Sales**	**Production**	**Raw Material**	**Overheads**
Annually only				
Semi-annually				
Quarterly				
Monthly				
Weekly				
Other (Please specify)				

Q28:
Do you have a Standard Costing System that is integrated to the Budgeting and Budgetary Control System?

Yes	
No	

In case your answer to the above is *yes* please elaborate as to how.

Q29:
Identify the parties associated in the budget preparation process in your Organization. Please tick off.

Board of Management	
Budget Committee	
Heads of Functional Departments	
Financial Controller and his staff	
Operational Level Managers/Assistant Managers	
Workers	
Other (Please specify)	

Q30:
Could you outline the processes that follow when *significant variances* are observed between the actual results and the budgeted at the level of 'responsibility centers?'

When significant favorable variances are observed:

When significant adverse variables are observed:

Overhead Analysis (Q31 – Q33)

Q31:
Which of the following statements is true in relation to absorption of manufacturing overheads (if applicable) to units of products and services in your Organization? Please tick off.

Nature of the Absorption Rate	
Make use of a single plant-wide overhead absorption rate	
Make use of separate rates for different Departments/ Divisions within the plant	
Base of the Absorption Rate	
Traditional Overhead Absorption Rates are used: No. of Units based Direct Labor Hour based Direct Wages based Raw Material Expenditure based Other (Please specify):	
Activity-based Overhead Absorption Rates are used	

Q32:
In case you do not use Activity-based Overhead Absorption Rates, why? Please tick off.

The concept is not still clear enough to warrant a change over	
A change over and maintaining the new system will involve high expenditure	
Non-availability of expertise to facilitate a change over	
The rates presently used serve the purpose adequately	
Its hardly being practiced by other organizations	
Other (Please specify):	

Q33:
Which of the following statements is true in relation to absorption of non-manufacturing overheads to units of products and services in your Organization?

Non- manufacturing overheads are traced using the following Traditional Overhead Absorption Rates: No. of Units based Direct Labor Hour based Direct Wages based Raw Material Expenditure based Total Manufacturing Cost based Selling Price based Other (Please specify)	
Non-manufacturing overheads are traced using Activity-based Overhead Absorption Rates	
Non-manufacturing overheads are not traced to units of products or services	
Other (Please specify):	

Pricing (Q34 – 36)

Q34:
Does your Organization carry out Transfer Pricing?
Note: *A transfer price is the price one subunit (segment, department, division etc.) charges for a product or service supplied to another subunit of the same organization.*

Yes	
No	

If the response to the above is *yes*, please give an instance where Transfer Pricing is used
.....
.....

Further, identify main methods *of* determining transfer prices:

Market-based transfer prices	
Cost-based transfer prices	
Negotiated transfer prices	
Other (Please specify):	

Q35:
Which of the following statements is true with regard to pricing decisions in your Organization? Please tick off.

Prices are exclusively market determined and little attention is paid to determine 'true' costs of products	
Prices are exclusively market determined but considerable attention is paid to determine 'true' costs of products	
Prices of most of the products/services offered are mainly cost based	
The product/service range offered is so large that it is not practically possible to determine the costs of every product	
The costs of key products/services offered are computed with a reasonable degree of accuracy	
The costing system provides aggregate costs only and not individual costs as the cost of this effort exceeds the likely benefit	
Prices are substantially influenced by governmental directives	

Q36:
In case most of the prices of products offered by your Organization are based on costs which of the following types of cost analysis are used? Please tick off.

Method of Cost Analysis	Yes/No	Remarks
Full-Cost Pricing		
Variable-Cost Pricing		
Target Return on Investment (ROI) Pricing		
Other (Please specify):		

Other (Q37 - Q40)

Q37:
Do you recognize and make use of the distinction between Fixed Costs and Variable Costs in the Management Accounting information generated in your Organization?

Yes	
No	

If the answer to the above is *yes* will you please state clearly a few applications where this distinction is made use of?

Q38:
In respect of Capital Budgeting techniques (as observed in Section C) rank the following techniques in the order of usage (starting with 1 for the most used technique) in your Organization.
Note: The most used technique may not necessarily be thee *most effective* technique.

Capital Budgeting Technique	***Ranking for***	
	Large Investment	***Small Investment***
Pay-back method		
Discounted Pay-back method		
Accounting Rate of Return method		
Net Present Value method		
Internal Rate of Return method (IRR)		
Modified Internal Rate of Return(MIRR)		
Profitability Index(PI)		
Economic Internal Rate of Return (EIRR)		
Experience and intuitive judgment		
Other (Please specify):		

Q39:
Could you state briefly how you carry out the Cash Forecasting and Planning in your Organization (if applicable)? Please comment on frequency and modes of preparation and control aspects.

Q40:
Are you convinced that your Organization's product costing system provides you with reasonably accurate product cost figures?

Yes	
No	

In case the answer to the above is *no* rank the following possible contributory factors in the order of decreasing importance, taking 1 as the most important.

The problem of apportioning overheads among different products	
Depending on a system which mainly provides information required for Financial Accounting purposes	
The range, diversity and complexity of the products offered.	
Other (Please specify)	

Note: The same questionnaire with necessary modifications was issued to the companies in the Hotels and Travels Sector.