

Management Accounting in a Dynamic Economic Environment: An Evaluation Study

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MANAGEMENT ACCOUNTING IN A DYNAMIC ECONOMIC ENVIRONMENT: AN EVALUATION STUDY

1. INTRODUCTION

It has been suggested that management accounting system has evolved to meet organisational needs (Kaplan 1984 & Johnson 1983). More specifically, management accounting has been considered essentially as a part of fulfilling the management functions, by providing useful and relevant information for management planning and control decisions (Flamholtz, Das, and Tsui; 1985).

A series of field studies indicates that accounting systems, including management accounting, did not change appreciably in several companies that successfully adapted to significantly changed environments. Kaplan (1986), noted that changes in management accounting systems did not follow significant changes in manufacturing technology. He concluded in this and previous studies (Kaplan, 1983, 1984) that such a lag is undesirable. Subsequent studies (Hopwood, 1987, Jonsson and Gronlund, 1988; Chenhall and Morris, 1986) also found that management accounting is unable to reflect significant economic or non-economic environmental changes. Moreover, MAS, provides information which focuses on events within the organisation and related to historical data.

It would appear that most studies relating management accounting systems to organisation environment have assumed that the environment of the organisation is not dynamic (Cunningham, 1990). Furthermore, management accounting books have exclusively been orientated towards decision-making in stable and well known environments. Both assumptions are unrealistic.

In an era of rapid technological, social, political, economic and environmental changes, the development of management accounting is essential, if the organisation is to adopt relevant goals and employ appropriate strategies, tactics and operational systems. The provision of insufficient and poor quality of information to the management by management accounting may lead to misdirected efforts and wasted economic resources.

The current century has witnessed dramatic changes in the social, economic and political environment of the enterprise. We have seen the growing role of multinational corporations, the powerful applications of computers, the advent of new technologies in industry, the increased national and international competition, and the throwing open of the frontiers of most countries. These changes would, undoubtedly, question the current

dimension of information transmitted to the management by management accounting. These developments should alter both our management accounting practices and the way we think about our field. In this context, Kaplan (1986), argued that "major changes in the organisation and technology of a firm's operations may be making the accounting and control systems of operations obsolete." Thus, the essential problems to be addressed, in providing an improved quality of information to management, are the ability of management accounting systems to reflect the technological and environmental changes in the information transmitted to managers.

Reviews of the current literature of accounting suggest that management accounting did not reflect, among other things, information related to external environment which may be economic or noneconomic. Its current practice, therefore has been the subject of criticisms and concern.

This paper complements and enriches these criticisms which academicians and researchers make of management accounting. What do we expect of management accounting in a world of rapid economical and environmental changes is also investigated. A critical review of the current practice of management accounting is presented.

This study is an attempt to expand the present scope of management accounting to include more relevant data to help managers to perform their functions, more effectively, and to conduct their business under constantly new technology and dynamic economic environments. The paper ends with concluding remarks.

2. REVIEW OF THE CURRENT PRACTICES OF MANAGEMENT ACCOUNTING

Management accounting has been considered by the National Association of Accountants (1983), as an information system concerned with collecting, classifying, summarising, analysing data and preparing different reports for the management of the enterprise. These reports would be of paramount importance for the management in performing its planning and control functions.

Based on the foregoing, management accounting should improve management function by giving it direction and penetration, and consistency with other activities in and outside the organisation.

It has been argued by Sabri (1986), that there is no consensus on identifying the framework of management accounting practices as well as their contents. Furthermore, there are many ways of classifying management accounting practices, such as the decision orientation basis (Demski, Joel and Kreps, 1982), the management function (Choudhury, 1986), the management level uses and finally the subject matter.

The current practice of management accounting has been well documented by a study carried out by Scapens (1983). The purpose of his study was to identify the actual practice of management accounting as an academic subject. It also aims at studying the basic interests and priorities of this subject. Scapens carried his research on 25 references of management accounting which have been published during the last six years prior to his study and analysis. The following is a summary of the findings of his study:

First: The main subjects usually included in management accounting literatures were:

1. Planning: This includes:

- The preparation of relevant data for decision making.
- Break-even analysis.
- Production - mix decision.
- Investment decision.

2. Cost classifications:

- Fixed and variables costs.
- Methods of costs estimation.
- Cost prediction.

3. Control:

- Responsibility Accounting.
- Budgeting and standard costing.
- Study and analysis of variances.

4. Costing:

- Full costing and direct costing.
- Cost allocation.
- Job-order costing and process costing.

5. Divisionalised Organizations:

- Performance Evaluation and Evaluation reports.
- Transfer Pricing.

Second: The core materials included in these references have not been changed in the last decade.

This finding is still true at the time of writing this paper (See, for example, Hartley, 1986; Morse, Davis, and Hartgraves, 1984; Horngren & Foster, 1987).

Third: The study that there is a growing interest in quantitative and behavioural aspects of management accounting. It has been found that whenever the quantitative and behavioural considerations are discussed, they have to be dealt with in chapters separate from the other major subjects.

These findings have been re-emphasised by Sabri (1986), who indicated the general framework of management accounting techniques currently in practices. The following table illustrates this framework:

Figure 1
Classification of Managerial Accounting Techniques and Practices

Function	Sub-function	Basic Elements to be predetermined, estimated or measured.
Planning	1. Budgeting (Operational)	Revenues, Production Cost, Marketing and Administrative Expenses, Sales and Production Volume.
	2. Standard Costing	Final Products, Direct Material, Direct Labour and Factory Overhead Cost Standards.
Controlling and Evaluation	1. Budgeting (Comparative Reports)	Budgeted and Actual Revenues, Cost and Expenses
	2. Standard Costing (Analysis of Variances)	Standard and Actual Cost, Data of Materials, Labour and Factory Overhead.
	3. Responsibility Accounting	
	- Cost Centre	Controllable Cost.
	- Profit Centre	Revenues and Controllable Cost.
	- Investment Centre	Investments, Revenues and Controllable Cost.
	4. Measuring of Performance	
- Return on Investment	Net Profit, Sales, Investment.	
- Residual Income	Net Profit, Imputed Interest. (Cost of Capital)	
Decision Making	1. Differential Analysis	Incremental or Decremental Cost and Revenue or Cash Inflow and Outflow.
	2. Capital Budgeting	Cash Flow of Investment, Capital Cost and Present Value.
	3. Break-even Analysis	Fixed cost for a period, Variable Cost per Product, Sales Price and Volume.
	4. Contribution Margin	Revenue, Fixed Cost, Variable Cost.

The most significant observation of current practices of management accounting is the provision of information which focuses on events within the organisation. It follows that when environment changes, management accounting would be concerned with internal management rather than with monitoring external changes in relation to the production process. This deficiency is undesirable in management accounting systems.

3. A SUMMARY OF THE MAJOR CRITICISMS OF MANAGEMENT ACCOUNTING

The current practice of management accounting has been subjected to criticism by academicians in the last few decades. These criticisms include:

- a. Failure of management accounting to adjust its objectives and activities to the decision making requirements in a changing business world, and it is likely to provide insufficient information to increase organizational effectiveness.
- b. In many ways the conventional management accounting is limited by its major focus on internal information for management planning and control. Simon (1986) suggests that information, both internally and externally, "is always a vital ingredient for the effective and efficient operations and management of any organisation." As management accounting is a subject of the total MIS, information technology and the external environmental developments may have significant impact on the role of management accountants and consequently, on the informational content of their reports. In this context Lee (1990) argues that "Organisational and technological changes, and the consequent changing information needs of management seem not to have been adequately matched with corresponding changes in the emphasis and content of accounting systems. For example, the need for relevant performance indicators, beyond those of a conventional and judgmental accounting nature, has been particularly neglected. The continuing role of the management accountant as a significant constituent of organisational activity appears under constant threat in these circumstances." Furthermore, Chenhall and Morris (1986), criticise the informational content of management accounting systems. They state: "A traditional MAS provides information which focuses on events within the organisation, is quantified in monetary terms, and relates to historical data. A broad scope MAS provides information related to external environment which may be economic (such as GNP, total market sales, and a company's share of that market) or noneconomic (such as demographic factors, consumer tastes, competitors, actions and technological advances). Broad scope MAS would include nonmonetary measurement of many of these external environmental characteristic. In

addition MAS would provide estimates of the likelihood of future events occurring possibly in probabilistic terms." This type of information would be useful for those managers who work in a dynamic environment and perceive their environment as uncertain.

The discussion above indicates the need to shift focus towards the usefulness of external information sources, particularly when the economic environment changes.

- c. Management Accounting has been considered a subject that lacks well - defined boundaries, agreement on desirable methodologies and indicators of potential publishability. As a result of the inability to define the territory of management accounting, there is difficulty in identifying the stage and direction of its development (Choudhury 1987). This deficiency may be considered one of the main reasons behind the current state of turbulence of management accounting research.
- d. Management accounting is based on techniques, models and methods that are largely derived from various sources of disciplines. Klemstine and Maher's (1983) bibliography of management accounting articles and tests outlined the diversity of source disciplines of management accounting. These disciplines including statistics, mathematics, operation research, economics, psychology, sociology and others. Gamiel (1984) argued that management accounting assumed that these methods and techniques are those that should be used in practice to help the management to perform its planning and control functions. This is not the case between theory and practice. For example the use of operation research and mathematical models by the management is still very limited (Kaplan 1981)
- e. Management accounting research has also been criticised by Choudhury (1986) who argued that given the importance of management accounting for management planning and control decision, one may expect that management accounting research should improve management accounting practice. He further states that "The picture that emerges from surveys of management accounting practice, casual observation and anecdotal evidence is inconsistent with such expectation. It appears that there is considerable perplexity among managers and management accountants as to the mission, if any, of management accounting research, and scepticism in relation to its product. They feel that academics do not understand their problems, concerns and urgency and do not speak their language. They consider the academics to be divorced from real life practice and isolated in a world of theory." He further mentions that, "... academics

believe that managers and the accountants who serve them have a technical orientation, are anti-intellectual and unresponsive to new ideas, and have a short-run focus."

This criticism of management accounting research has recently been emphasised by Professor Baxter (1988). He argues that there is a wide gap between academic studies of accountancy and the practical work of accountants and that academics have focused on the abstract rather than practice. In this context, Drury (1990) states that: "Until recently academic management accounting research has tended to emulate economic research. Elegant models were developed based on realistic premises. These models were frequently highly mathematical and bore little relationship to the problems faced by practitioners. Hence, most of the research was incomprehensible and ignored by practising management accountants." In a dynamic environment, this approach has contributed to the lost relevance of management accounting practice.

This current state of management accounting research and its inability to improve management accounting practice may provide some answers to professor Lee's (1990) puzzles. He states that "I am ... puzzled by the state of affairs [of the world of accounting] because the accounting profession states a need for research yet does not seem capable of fully implemented its findings."

- f. Management accounting is mainly concerned with descriptions and explanations of past economic events within well defined organisational settings. This approach treats management accounting as if it were an independent and neutral function in companies and society (Lee 1990)
- g. Johnson and Kaplan (1987) argue that management accounting systems of the 1980's are not helpful for either product costing or the operational cost control and thus fail to provide information which is useful for cost management. They claim that current management accounting practice is not relevant to current business problems. They mention that over the last 50 years management accounting has come to be influenced by the requirements of external financial reporting and has consequently lost its relevance for managerial decision making. Moreover, they claim that practitioners are using 60 year old management accounting practices which no longer provide information relevant to current business problems, particularly in a dynamic environment. Furthermore, they also claim that academic management accountants and researchers have contributed to the lost relevance of management accounting. The following is a summary of their major criticisms:

- i) The use of inappropriate methods for assigning overhead to products.
- ii) An over-emphasis on the control of direct labour.
- iii) Textbooks, research and teaching emphasise a financial accounting mentality in many corporate executives and this has resulted in management accounting practices following, and becoming subservient to, financial accounting practices.
- v) Monthly performance reports using practices mandated for external reporting have encouraged managers to focus excessively on achieving short-term health of the company being compromised.
- vi) Management accounting reports are of little help to operating managers as they attempt to reduce costs and improve productivity.
- vii) Management accounting systems fail to provide the relevant set of measures for today's environment.

However, one should not conclude from the above discussion that by identifying its deficiencies, management accounting and the information it generates are valueless. On the contrary, identification of its limitations may strengthen their application for management in performing its functions. Frank recognition of the uses and limitation of management accounting can only strengthen its claim as a useful addition to our technical instrument for managing the organisation more effectively.

It follows that the more thought put into identifying the limitations of management accounting, the greater the assistance for improving the design of the system and the greater the benefit of its informational content to policy-makers and financial analysts.

4. MANAGEMENT ACCOUNTING IN A DYNAMIC ECONOMIC ENVIRONMENT

Accounting has been considered as a product of the socio-economic environment which it services. It is so much closely connected with, and an integral part of, every society. Lee (1990) argues that: "The world of accounting is broadly defined as a social system of communicative accounting actions Accounting is thus seen as more than a complex technology which exists in organisations and society with the purpose of providing information for the enabling of these systems ..., it can be intercepted as a source of knowledge about organisations and society and, consequently, can also be regarded as a source of knowledge about organisations and society and, consequently, can also be regarded as a source of power in them. It cannot be separated from either the organisation or the society in which it exists. It must be examined in context in order to provide explanations and an understanding of its changing role."

In the last few decades many companies had faced substantial changes in world business conditions, social and political climate, domestic business conditions, government actions, technological developments and the dynamic character of their economic environment. These changes underscore the importance of accounting system as a mediation between economic events that took place inside and outside the organisation and policy makers.

Expanding the current role played by management accounting is an essential stabilising feature to permit organisation to successfully cope with environmental changes. It is in this context that management accounting should be regarded as a dynamic rather than static system. More specifically, management accounting should be studied as changing within the context of both organisation and its economic environment.

Traditionally, management accounting has been defined by Sizer (1977) as the "application of accounting techniques to the provision of information designed to assist all levels of management in planning and controlling the activities of the firm." Thus the major function of management accounting is the preparation and interpretation of accounting and statistical information. Management accountant should identify and satisfy, through effective reports and communication, management information needs. Sizer (1977) also argues that "management accountant has traditionally been at his strongest when producing information needed to solve them."

In performing its planning and control functions, management needs a detailed and comprehensive framework of internal and external data. The availability of these data is of paramount importance, the absence of which will severely constrain decision making process.

In a dynamic economic environment, management information needs tend to be directed more at information sources which are normally found beyond the conventional internal sources. Thus, the management accountant must gather information about social and political climate, government actions, technological progress, competitive action, customs characteristics, world business conditions and the information generated by macroaccounting statistics. This information comprise the environment within which the organisation is working.

The information provided by macroaccounting statistics is not only indispensable in describing economic changes that occur in the economy but it would contribute to the formulation of many forms of sound plans.

It follows that management accountants, in addition to their specialised training in accounting and financial management, must have a fairly thorough understanding of the basic information derived from macroaccounting system which might have some impact on management decisions. Such information might include

- The relationship between saving and investment.
- Capital structure.
- Domestic savings.
- Input - output analysis.
- Scope and direction of government spending.
- Distribution and redistribution of income.
- Fiscal policy.
- Analysis of saving behaviour.
- Short term foreign aid policy.
- Distribution of national wealth among economic sectors.
- Models of stock-building and fixed capital formation.
- Investment policy.
- Monetary policy and liquidity preference.
- International finance and liquidity, long foreign aid policy.
- Export demand analysis.
- Analysis of balance of trade payments.
- The movements of price levels and interest rates.
- The major mode of operation of the money and capital market.
- The liquidity of the different sectors of the economy.
- The short term effects of financial and economic measures, (e.g. credit squeeze, price policies, public expenditures cuts, increase in taxation etc.) on both financial surplus/deficit and the financial transactions of each sector in the economy.
- The effect of inflation on the financing process of certain economic sectors and on the investors' behaviour in the distribution of their available funds between assets (physical and financial).

Study and analysis of this information by management accountants may provide the management of the organisation with valuable information for the formulation of sound strategic and tactical plans. Bedford (1984) argues that, "For the development of strategic and tactical plans, a combined environmental-scanning and internal planning information system is needed to provide information on such events as social and economic

developments, technological advances and actions of competitors."

It should be mentioned that in the Pearce Report (1989) some failures of traditional national income accounting has been identified. These are principally of two sorts:

"(i) those arising because the environment has a price only when property rights have been established over it and those rights then exercised; and
(ii) those arising because of the bizarre habit of treating income as one measure of welfare."

This failure should not underestimate the value of information disseminated in the various components of national accounts, i.e. national income accounts, flow of funds accounts, sector and national balance sheets, input-output tables, and the balance of payments.

Management accountants therefore must observe, measure, analyse, and report the external environmental developments to the management of the organisation to become aware of (Bedford 1977):

- General economic, financial and social concerns and changes.
- Governmental fiscal and economic policies changes, treaties with other nations, and regulations of all types.
- Developments in the industry (local, national and international) or areas of activity in the form of technological innovations, new production and marketing methods.
- Activities of competitors (other enterprises, nations or corporations).
- Size and distribution of national income.
- Size and development of consumption, expenditure, savings, investments, inventories and capital formation classified for each economic sector.
- Developments in the financial market (financial institutions, financial transactions and transactors).

The results obtained from this information may be used by the management in:

- interpretation of past trends
- revision of plans
- forecast and planning
- explaining of an economic and/or financial phenomenon

The potential utility or macroaccounting information for the formulation of strategic and tactical plans hardly needs to be emphasised. It would enable managers to base their decisions on facts and figures rather than guesswork.

The challenges to management accounting practice and thought which are raised by the

environmental; crisis are considerable. For example, the Pearce Report (1989), rehearses the important literature on how to attach economic values to everything for which there is no market price. The Report lays out the notions of "total value," "use value," "option value," and "existence value." These "values" are so important not only for economists but also for management accountants who have to estimate such "value" and reflect them in the information transmitted to management.

It may be concluded that national accounting information is of fundamental importance for the management of the enterprise. Its importance has grown from the desire to use the available resources more efficiently and effectively, maximise the enterprise profit, and consequently accelerate its growth. This desire creates a situation that demands careful planning, adequate control and factual information for decision making. Management accountants, therefore, must broaden the scope of current information transmitted to the management to encompass macroaccounting information.

5. SUMMARY CONCLUSION:

A successful management accounting is one which improves organisational effectiveness, efficiency and quality of management performance. Management accounting success and management success are interdependent. In this sense, management's failure can be described as management accounting's inability to fully exploit the information resources.

Management accounting has long been concerned with the provision of information for managerial decision making. Management accountants concerned themselves with profit maximisation by using different techniques and tools to motivate employees with economic incentive and devising systems to overcome employees' inherent laziness and inefficiency. A system of responsibility accounting was developed which allocated goals to subunits and provided the framework for variance and cost benefit analysis (Caplan 1966). In addition, management accountants used budgeting as a means of performance evaluation and control. Ansari (1986) argued that "the resulting measurements and reports (prepared by management accountants) were assumed to be a neutral reflection of economic reality which contained all the data rational managers needed to maximise profits."

It has shown that the current practice of management accounting has been subjected to criticism, and it is likely to provide unsatisfactory and insufficient information for the decision maker requirements particularly in a world of rapidly increasing technology and

Fundamental social, economic, political developments. These developments are in the forefront of our era of change.

All these facts compel management accountants to look for constantly improved the quality of information they produce for managerial decision making. In this context, macro-accounting information has been regarded as a major quantitative information source on the basis of which realistic strategic program and operational plans can be formulated.

Gray (1990) argues that: "The challenges to accounting practice and thought which are raised by the environmental crisis are considerable. Apart from the rather brutal observation that extinction of the species will severely dent the demand for accounting services, accounting is implicated in the ecological impact of investment policy, waste management, tax planning, short-termism, energy conservation, mergers and acquisitions etc. These implications will raise challenges for every aspect of accounting and extensive thought and research into these issues is urgently required. At a more immediate level, the implications of the Pearce Report for accounting might be largely captured in three categories: the foundations of economic thinking; the development of accounting and information systems; and the methods of asset accounting." And he goes on: "In so far as accounting influences decisions through the information it provides, developments of information systems (particularly management accounting) to account for the (economic) environment will change the decisions made."

It is hoped that the above discussion can facilitate, improve and expand the scope of the current information, future practice and research in management accounting system. It is hoped also, that this paper may be considered as a step forward in exploring a relationship between management accounting and the economic environment. Such a relationship seems to have been overlooked by researchers. In this context, Gray (1990) argues that: "Exploration of any relationship between accounting and physical environment has not had a long or an active history," and he goes on: "within the ... social accounting literature itself, the concern is principally with four groups of issues; employees, community, consumers and the environment. Of these, the environment (in economic sense) has generally received the least attention."

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