

Contextual Factors Influencing Management Accounting Practices Adopted by Large Manufacturing Companies in Kenya

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Abstract

This study explores the contextual factors that influence management accounting practices adopted by large manufacturing companies located in Nairobi, Kenya. well. This paper reports on a descriptive survey design that was intended to establish the characteristics of the population in the context of the various factors that have potential influence on the adopted practices. The findings indicate that both traditional and advanced management accounting techniques are practiced by the surveyed organizations. Advanced management accounting techniques notably; customer satisfaction, quality and innovation and on time delivery have been adopted, while traditional management accounting techniques such as ; incremental budgeting, variable costing, standard costing and variance analysis, sales and return on investment are being maintained. The study suggests that increased global competition, organization strategy and organization structure as contextual variables that largely influence the practices adopted by the surveyed organizations.

Keywords: Management accounting practices, Adoption, Contextual variables, Kenya

1. Introduction

Management accounting is concerned with the provision of information to people within the organization to help them make better decisions and improve the efficiency and effectiveness of existing operations. The information provided is as a result of the established management accounting practices that encompass activities undertaken by staff within the organization (Drury, 2008). The organizations management accounting system serves as a vital two way communication link between senior and subordinate managers. It is the means by which senior executives communicate the organization goals and objectives to subordinates and decentralized managers. In the reverse direction, the management accounting system is the channel by which information about the firm's product performance and production efficiencies is reported to upper levels of management (Kaplan, 1987).

The origins of today's management accounting can be traced back to the industrial revolution of the nineteenth century. The emergence of managed, hierarchical enterprises during this period such as armories and textile mills resulted in management accounting costing techniques being established to provide information on costs in an attempt to improve the cost structure. Further innovations in management accounting systems occurred in the early decades of the twentieth century to support the growth of multi-activity, diversified corporations. Several important operating and budgeting activities were devised to coordinate activities and allocate resources to groups. The most important management accounting innovation was the return-on-investment (ROI) that provided an overall measure of the commercial success of each operating unit and of the entire organization.(Kaplan and Artkinson,2007).

According to Johnson and Kaplan (1987), most of the management accounting practices that were in use in the mid 1980s had been developed by 1925 and for the next 60 years there was a slow down or even a halt, in management accounting innovation. They claim that over the years, organizations have become fixated on the cost and management accounting systems of 1920s that are obsolete and no longer relevant to the changing competitive and manufacturing environment. In the 1980s, major new challenges emerged for management accounting. Companies rediscovered the critical role that manufacturing plays in creating competitive advantage for their organizations. Quality in manufacturing and in product design became more emphasized, reduction in inventory levels and manufacturing lead times represented by just-in-time production and the introduction of computer controlled manufacturing operations. In this new manufacturing environment management accounting systems must be designed to support the drive for manufacturing excellence. Measurement systems must evolve to support efforts to increase quality and productivity, move to just-in-time and computer-integrated - manufacturing production systems and investment in new technologies. Since the mid-1980s management accounting practitioners and academics has sought to modify and implement new techniques that are relevant to today's business environment. (Kaplan and Atkinson, 2007).

The modification and implementation of the new or advanced management accounting practices by organizations has been found not to be a uniform phenomenon. the causal factors of change are varied as confirmed by management accounting researchers. It is evident that both the external factors (environmental) and internal factors (relating to the organization concerned) have influenced the recent development of new management accounting systems and techniques. Shields (1997) ,asserts that the potential change drivers are competition, technologies, organizational design and strategies. These drivers of change also indicate the differing roles which causal factors can have in the process of change. Change in environment also implies

uncertainty and risk which create a demand for further management accounting change (Vaivio, 1999).

In Kenya, liberalization of the economy opened door for intensive competition from overseas companies in 1990s in the domestic market. This has resulted to a situation where most firms are now competing in a highly competitive global market. Protection policy by the government limited the ability by foreign companies to compete in domestic markets. This implied that there were little incentives for firms to maximize efficiency, improve management accounting practices or minimize costs. However, in the mid 1990s many organizations including manufacturing firms began to encounter severe competition from foreign competitors that offered high quality products at low prices. Privatization of government controlled entities in the same period contributed to the change in the business environment.

Organizations commonly utilize traditional management accounting techniques (TMATs), such as full costing, job order costing and process costing. Developments in management accounting in the past two decades provided more advanced management accounting techniques, including activity based costing (ABC), activity based management (ABM), target costing, value added accounting, cost of quality reporting, economic value added, life cycle costing, throughput accounting and back flush costing. These forms a set of contemporary management accounting practices. Each technique has its advantages and disadvantages and may be applicable under certain circumstances. Szendi and Elmore (1993) drew a distinction between contemporary and traditional management accounting practices. They found that new management accounting techniques are being adopted while traditional systems are being maintained, thus suggesting that management accounting is in a transitional stage. The inclination of organizations towards new management accounting techniques has been explained as facilitated by management accountants whose behavior is innovative cognitive in style are more likely to initiate radical changes to the practices of their organizations (Emsley *et al.*, 2006).

To compete successfully in today's highly competitive global environment, companies are adopting new management accounting practices, changing their manufacturing systems and investing in new technologies. This study focuses on the advancement in management accounting practices and how such practices have been adopted by large manufacturing companies in Kenya.

2. Statement of the problem

The operating environment of manufacturing entities in which management accounting practices are potentially applied has faced dramatic changes with high technological advancements, highly competitive environments, change in customer demands and focus on quality. In many developed countries companies have introduced and adopted advanced new cost and management accounting practices in order to cope with the changes in the operating environment. Such management accounting systems or practices include but not limited to; activity-based costing (ABC), activity-based management (ABM), target costing, product life cycle costing, quality cost management, customer accounting, and the balanced scorecard (BSC) approach to performance measures. For example, a study conducted in Canada by Libby and Waterhouse (1996) focusing on change in management accounting systems and how such change can be predicted, results indicated a change in management accounting systems to the extent of 31 per cent within a period of three years, refuting claims that management accounting is generally resistant. The same was echoed by findings of a study by Burns *et al* (1999) in which significant changes in management accounting practices were experienced in the in the United Kingdom in the last decade. From the study findings it was evident that noticeable changes were on the way management accounting practices are being applied or used and not necessarily introduction of new systems or techniques. A 1990 UK survey reported by Bromwich and Bhimani (1994) indicates that the cost management techniques most commonly used or planned to be used by UK firms were; ABC, cost modeling, and costs of quality. Other techniques were; target costing, strategic management accounting, and throughput accounting. The 1990 survey is consistent with Boer (2000) that found an emphasis on strategic management. A USA survey by Silk (1998) estimated that 60% of Fortune 1000 firms have experienced with the balanced scorecard.

However, there is little research on the adoption of these practices in developing countries for example, Cadez and Guilding (2007) surveyed manufacturing companies in Slovenia benchmarked with Australia on strategic management accounting usage, and they found a non-uniform adoption. Some techniques that have popularly high ranking in one country were relatively low in another country. They attributed this to contextual variables of difference in economies and cultures of the countries. A study by Wallace (1990) on accounting in developing countries found no different techniques in rich and poor countries or that Less Developed Countries (LDCs) import grossly inappropriate practices. No management accounting system is unique to LDCs has been found. Wallace (1990) claims accounting in LDCs is a tale of importation of western practices and institutions by transnational accounting firms. This is supported by Bromwich and Bhimani (1989) who contend that by organizations simply transplanting new management accounting practices that have been adopted by organizations operating in foreign settings in order to cope with a changing business environment is not totally satisfactory due to the fact that different companies are faced and operate under diverse environments. They further post that consideration should always be made of the political, economic, social and cultural

environments that surround the firm. The evidence on the use of more contemporary and more sophisticated management accounting tools and techniques in emerging and/or developing nations remains mixed and is currently not suggestive of a “natural” evolution as argued by the above-mentioned authors (Van Triest and Elshahat, 2007).

A number of studies have been carried out in Kenya addressing the application of specific management accounting practices. The studies have examined the kind of practices that organizations apply most (Wangari 2008, Arithi 2001, Nzule 1999, Waweru 1999, Osewe 1998 Gathumbi 1997). None of these studies has sought to explore why and how management accounting systems have been adopted and why new or innovative practices have or have not been adopted in Kenyan context. This study is intended to bridge this knowledge gap. It is against this background that the following research questions arise;

- i. What advancements have occurred in management accounting systems in the last decade?
- ii. What contextual factors facilitate/hinder management accounting system change in large manufacturing companies in Kenya?

The specific objective

To establish the contextual factors that facilitate /hinder the management accounting practices adoption by large manufacturing companies in Kenya.

3. Literature Review

Theoretical Considerations

Management accounting practices adoption is grounded on some theories that try to explain why organizations tend to adopt certain practices or systems . This study was based on the following theories:

3.1 Contingency theory.

In order to design effective management accounting control systems, it is necessary to consider the circumstances in which such practices will be implemented or used. It is important to note that there is no universally best management accounting practice or system which can be applied to all organizations. The applicability of the practices is contingent on the situational factors faced by organizations and this is the contingency theory approach to management accounting. The situational factors represent the contingent factors or variables or contextual factors. The contextual factors that have been examined and found prominence in the literature include the external environment that organizations encounter, the competitive strategy adopted by the organization , organization structure and nature of the production process (Drury, 2008 pg. 407).

Burns and Stalker (1961) contend that contingency theory provides an explanation of why management accounting practices vary between firms operating in different settings. Similar report was given by (Lawrence and Lorsch,1967;Otley 1980;Innes and Mitchell,1990;Fisher,1995).Carrying out a study on the contingency theory of management accounting research: achievement and prognosis Otley (1980) suggests that the contingency theory of management accounting is based on the premise that there is no universally appropriate or best accounting system applicable to all organizations in all circumstances. Rather the contingency theory demonstrates a matching between specific aspects of an accounting system and defined circumstances under which the company operates. Accordingly, the contingency theory argue that how control systems are designed and applied is contingent on the environment and the setting of the organization in which these controls operate and function.

3.2 Institutional theory

In explaining management accounting practices adoption, the concept of institutionalization is significant . Oliver (1997) has noted that institutional activities tend to be long-lasting, socially accepted, resistant to change, and not directly dependent on rewards or monitoring of their permanence. In the context of management accounting, Scapens (1994) asserts that, over time, management accounting can constitute a structure that reflects a particular organization's way of thinking and acting which is taken for granted and detached from its specific historical circumstances. Thus, it becomes an organization's unique way of doing things that is unquestionable. A particular management accounting technique can be accepted if it conforms to the socially accepted norms. Institutional pressures can be created by those within and outside the organization forcing the individual organizations to adopt specific structures and procedures (DiMaggio and Powel (1983). For example, due to regulatory authorities ,professional bodies and the governments can coerce organizations to adopt certain practices or large manufacturing companies may force their suppliers to adopt certain shipping standards.Further,DiMaggio and Powell (1983) contend that uncertainty about the environment in which the organization operates, its goals or technological efficiency may cause organizations' to copy certain practices from organizations' that are deemed to be successful. In this paper, we suggest that the institutional context within and outside the organizations can be seen as a place in which a number of participants undertake strategies of power to enroll others, including top managers, to specific representations of the organization.

Therefore, such pressures may lead to the adoption of certain management accounting practices in order for an organization to be compliant.

4. Contextual factors influencing management accounting practices adoption

Various organizational, economic, technical, and social factors act as determinants of MASs and practices adoption by companies. The aforementioned factors tend to influence the diffusion and adoption of these practices. Prior studies have established global competition and changes in technology as greater influencers (Waweru *et al.*, 2004 and Woodward, 1965), performance gap (Lin and Yu, 2002), studies by Abernethy and Bouwens (2005) and Cavalluzzo and Ittner, (2004) findings emphasize on organizational structure and top management support, the organization size by (Haldama *et al.* and Mitchell 2002) and the influence of government (Lapsley and Wright, 2004), design and structure (Waterhouse and Tiessen, 1978). The findings of Libby and Waterhouse (1996) study results suggest that organizational structure, size, and competition as variables that do not predict changes in management accounting systems conflicting with the other findings. Based on the literature I identified the following contingent factors which might be most influential in determining the extent of adoption of contemporary management accounting systems in the participating organizations;

4.1 Deregulation/global competition

Prior to 1980s many organizations operated in protected competitive environments. Most developing economies experienced drastic changes in terms of opening up due to globalization and deregulation between 1990 and 2000. Accordingly, the International Monetary Fund (IMF, 1999) reports that many state owned enterprises were privatized, and protectionist barriers removed that substantially changed the competitive environment in most of the economies. Companies that established networks globally for raw material acquisition and ability to distribute goods overseas competitors have gained access to domestic markets. This is supported by (Narayan *et al.*, 2000). Thus globalization has exposed companies in developing countries to stiff competition from both local and global companies. This has resulted in a gradual market share decline that they have to cope with or else be ousted from the market. To ensure effective competition companies operating in these countries now require quality and timely information and this can be made possible by adopting advanced or sophisticated management accounting practices or systems. Libby and Waterhouse (1996), in their research assert that managers faced with high levels of competition require a variety of both financial and non-financial information for making organizational decisions. This is supported by findings of studies by (Cooper, 1995 and Hoque *et al.*, 2001). Bromwich (1990) emphasizes that those management accounting control systems that are applied by organizations' should be improved through modification putting in mind what the organization's value added activities are in relation to those of the competitor. Further, Abo-Alazm Mohamed (2013) assert that competition positively affects the level of management accounting practices adoption, in instances where competitive pressure is low less sophisticated tools are applied and vice versa.

4.2 Manufacturing Technological advancements.

The introduction of fast microcomputers and the widespread use of the Internet have greatly affected the technological environment within which firms in developing countries operate. The production and product or service delivery processes have also been influenced by such technological advancements. Whitley (1999) suggests that customer demand has become key as the emphasis is on competitive prices while maintaining high quality. This is supported by Cooper (1995) who asserts that those firms that wish to remain competitive have to focus on quality and better customer service. Furthermore, organizations with high-quality information systems have the ability of providing their data in detail, can offer easy access compared to the cost driver information that is needed by more sophisticated costing systems (Al-Omiri and Drury, 2007).

4.3 Size and type of organization

According to Innes and Mitchell (1995) the nature and size of business may also dictate the kind of management accounting systems adopted. For instance, since large organizations have adequate resources to develop new management accounting techniques, their systems are expected to be different from those of smaller companies. This is supported by Hoque and James (2000) in their study on linking size and market factors to balanced scorecard and its impact on organizational performance. Many researchers found that company size is positively related to accounting sophistication and control systems. A study by Guilding (1999) results concluded that, the cost of processing information declines as company becomes large in size. As Harrison and McKinnon (2007) notes structuring of activities by decentralization is influenced by the size of the organization in terms of number of its employees and this makes decision making paramount at the lower levels of the organization. There is an established positive relationship between size of the organization and BSC usage. Thus, the bigger the company, the more practical it is to use BSC to support their strategic decision-making (Hoque and James, 2000). Other

studies that have also contributed toward establishing the effect company size and accounting practices sophistication entail studies by (Choe,1996; Libby and Waterhouse,1996;Haldma and Laats,2002;)

4.4 Organizational strategy

Anthony and Govindarajan (2007) in their study on management control systems purport that the logic for linking management accounting and control system to strategy is based on the proposition that the strategic context in which organizations operate are varied. Different strategies are required depending on the task priorities, perspectives, key success factors, skills, and strategy execution effectiveness. Control systems are measurement systems that influence the behavior of the people whose activities are being measured. Thus, a continuing concern in the design of control systems should be whether the behavior induced by the system is consistent with the strategy. Chenhall and Langfield-Smith (1998) asserts that in order to achieve performance in a contingency perspective, theoreticians in accounting have claimed that the MAS must fit the unit's strategic-type. Empirical research linking organizational strategy to MAS in industries generally contends that strategy influences MAS (Langfield-Smith, 1997). A study by Kober *et al.* (2007) that analyzed the role of strategy, findings indicated that management control systems both shape and are shaped by the strategy. Other studies by Andersen *et al.*(1999) examined competitive strategy as a variable that mediates the contingent relationship between external competition and management accounting practices where competitive strategy and an organization's international outlook determined the kind of management accounting practices adopted.

4.5 Organisation structure.

Robbins (1990) and Moores and Mula (1993) contend that the structure of the organization can be regarded as the formal specification of job tasks for organization members and the different roles assumed by the members , with an established pattern of relationships between the component parts of an organization, with the details of communication, control and authority pattern. Organization structure is the level of decentralized decision autonomy that has been identified as one element of contextual variables that greatly impact on the overall control system within an organization. Robbins (1990), in their study on organization structure find that organization structure can be explained as what naturally influences management accounting system design, hence impacting on the practices adopted.

5. Prior Empirical studies

Chenhall and Langfield-Smith (1998), surveying the Australian manufacturing sector, found that traditional management accounting techniques were found to be more widely adopted than recently developed techniques and that there is greater attention being paid to newer techniques in the future, especially activity-based techniques and benchmarking. Their concluding comments suggest that future research should be directed at gaining a better understanding of the factors that influence differences in the levels of adoption of recently developed management accounting techniques between countries.

Haldma and Laats (2002) conducted contingency theory research in Estonia. The study examined the management accounting practices Estonian large manufacturing companies. Basing their study on a contingency theory framework data was collected from 62 responses from a postal questionnaire. Estonia regained independence in 1991 and has since undergone fundamental political and structural changes. These changes were found by the researchers to have influenced the operations of the companies there. The authors argue that some evidence that changes in cost and management accounting practices are associated with shifts in the business and accounting environment as external contingencies, and with those of technology and organizational aspects as internal contingencies. Of their sample, 7 percent use ABC. Multiple allocation bases for costs are used by 70 percent of respondents. Haldma and Laats (2002, p. 395) also observe that within their sample, the “level of sophistication is of a cost accounting system tends to increase in line with company size”.

The survey reported by Garg *et al.* (2003) was conducted in 2003 and found traditional management accounting techniques are still widely used and new cost management techniques are not a priority. The survey also found that the most widely used techniques were operational budgeting, quantitative techniques, traditional costing, and overhead allocation. The techniques used widely were also ABM & standard costing, capital budgeting, breakeven analysis, and transfer prices. Other techniques which were newer management accounting developments such as the balanced scorecard, value chain analysis, and supply chain costing were not adopted as often.

Krumwiede (1998) carried a study on how contextual factors affect activity-based costing(ABC) implementation process on US manufacturing firms. The study findings suggest that, usefulness of cost information, information technology, uncertainty of tasks, and organization size as the most important contextual variables influencing ABC implementation.

Clarke *et al.* (1999) studied the state of management accounting practices in Ireland. The data were collected from a questionnaire survey mailed to 511 Irish manufacturing companies. They found that ABC

systems were not as widely used within Irish companies as within companies in the USA, the UK, and Canada because “the practice of management accounting in Ireland is marginalized.” In other words, Irish management accountants work as record keepers rather than innovators and decision facilitators, possibly due to supply and demand barriers. Also, the results indicate that ABC was not well understood by Irish management accountants.

Xiao *et al.* (2007) studied the use of Management accounting practices (MAPs) in China and attempted not only to establish if there had been an increase in the use of MAPs by businesses in China but also to examine if there was a difference in use depending on the businesses’ location in China, the industry type and the size of the business. They found that in general there had been an increase in the use of MAPs but that the various degrees of regional economic development in China had little impact on that use; however, based on their observations, they concluded that larger firms and firms in the manufacturing sector are more likely to have implemented management accounting methods.

Waweru *et al.* (2004) conducted a research on management accounting change in South Africa. The research was done using a contingency theory framework within four retail companies to understand the processes of their management accounting systems change and to explore the rationales for such change processes. The findings indicate considerable changes in management accounting systems within the four cases. Such changes include increased use of contemporary management accounting practices notably activity-based cost allocation systems and the balanced scorecard approach to performance measures. The paper suggests that recent environmental changes in the South African economy arising from government reform/deregulation policy and global competition largely facilitated the management accounting change processes within the participating organizations.

Hyvonen (2005), carried a study on large manufacturing firms in Finland, her attempts were to identify the level of adoption of various MAPs, the received benefits from the adoption, and the intentions of Finnish manufacturing firms to emphasize the practices in the future. Her findings suggest that financial measures like product profitability analysis and budgeting for controlling costs is likely to be important for the future and also greater emphasis will be placed on newer MAPs like customer satisfaction surveys and employee attitudes.

Mat *et al.* (2010) studied management accounting and organizational change in Malaysian manufacturing firms. They found that majority of responding companies had reacted positively to changes in the competitive business environment and advanced manufacturing technology. Significant changes in management accounting practices were also influenced by structure and strategy.

6. Methodology and Data Analysis

Research design.

This study employed a descriptive survey research design. A descriptive survey is a design used to collect data from members of a population in order to determine the status of that population with respect to one or more variables. Descriptive survey designs are appropriate where an understanding of the characteristics of a population in the way they use common practices is sought (Sekaran, 2007). The primary data for the study was collected through the administration of a semi structured questionnaire to establish the contextual factors influencing management accounting practices adoption in Kenya. The target population comprised of all the large manufacturing companies located in Nairobi. Large manufacturing companies are those employing more than one hundred employees and/or an annual turnover or production level in excess of kshs.500 million(International Finance Corporation,2002) As at June 2007, there were 2085 manufacturing companies in Kenya(GOK).Of this number ,759 companies were located in Nairobi. A disproportionate stratified random sampling technique was used to select a sample size of 50 companies. This was considered adequate for this study because 50 are well above 30 that have been recommended as the minimum sample size for surveys (Saunders et al. 2000). In similar studies in manufacturing companies in Kenya (Nzule, 1999; Odongo, 2008) used sample sizes of, 35 and 30 respectively.

The classification and sample selection is presented in table 1 below

Table 1: Sampling procedures.

Category	Total number in category	Proportion (%)	Sample size
Agro processing.	226	29.8	12
Wood and wood products.	74	9.7	6
Capital goods & spare parts.	28	3.7	1
Iron and still making	43	5.7	3
Electrical and electronics.	24	3.2	1
Construction & equipment.	54	7.1	4
Pulp and paper	114	15	7
Chemical processing	134	17.6	11
Ceramics and glass making	62	8.2	5
Total	759	100	50

The number of employees was used to determine the firm's size. Large manufacturing firms are those employing more than 100 staff according to the Kenya Industrial Research Development Institute (KIRDI, 1997). The KIRDI directory classifies the population into a size class code and the number of employees.

7. Results and Discussion

Contextual factors influencing management accounting practices adoption .

i) Deregulation/global competition

The descriptive statistics for all the indicators of competition variable as a factor facilitating management accounting practices adoption is presented in the table 2 below. The results indicate that competition positively influence management accounting change and all the indicators seem to be equally likely with an overall mean of (3.67). However, competitor's action and competitors' markets/channels were found to have the greatest influence with a standard deviation of (0.99 and 1.19 respectively).

Table 2: Deregulation/global competition.

Competition						Mean	S.d
	Negligible %	Less negligible %	Moderate %	Intense %	Extremely intense %		
Price competition	15.6	0	18.8	25.0	34.4	3.67	1.42
New product development	9.4	12.5	21.9	37.5	15.6	3.39	1.20
Marketing/channels	6.3	6.3	21.9	28.1	28.1	3.72	1.19
Competitor's action	3.1	3.1	18.8	37.5	31.3	3.97	.99
Competitor's markets	9.4	9.4	18.8	28.1	28.1	3.60	1.30
Average	-	-	-	-	-	3.67	1.23

Likert scale of 1-5: 1=negligible; 2=less negligible; 3=moderate; 4=intense; 5=extremely intense.

Source: Survey data

ii) Manufacturing technological advancements.

Table 3 below presents descriptive statistics for all variables in AMT. The results show that most of the respondents indicated that flexible manufacturing technology and computer aided manufacturing as the most important indicators with standard deviations of (1.22 and 1.36 respectively).

Table 3: Manufacturing technological advancements

Manufacturing technologies						Mean	S.d
	Irrelevant %	Less irrelevant %	Moderate %	Important %	Extremely important %		
Flexible manufacturing systems	6.3	9.4	9.4	34.4	37.5	3.90	1.22
Computer aided manufacturing	12.5	9.4	9.4	37.5	28.1	3.61	1.36
Just-In –Time	21.9	9.4	12.5	21.9	31.3	3.32	1.58
Computer –int. manufacturing	28.1	9.4	18.8	21.9	15.6	2.87	1.50
Others	6.3	0	0	9.4	6.3	3.42	1.72
Average	-	-	-	-	-	3.42	1.47

Likert scale of 1-5: 1=Irrelevant; 2=Less irrelevant; 3=Moderate; 4=Important; 5=extremely important.

Source: Survey data

iii) Organization strategy.

The literature has identified strategy as the most important factor in any organization for survival. This is evident with the results presented in table 4. Majority of the respondents reported an increased emphasis in their organizational strategy. The indicators were rated as either important or extremely important by most respondents. The results indicate that the customer focus strategies are emphasized more in the surveyed organizations, (for example, provide high quality products=68.8%, provide on time delivery =40.6% and make dependable delivery promises 34.4%). Except for, provide low costs (9.4%) and provide unique products (6.3%) none of the strategic variables was identified as irrelevant. Among these items provide high quality products, provide on time delivery and make dependable delivery promises are seen as the most important strategies with standard deviations of (0.66, 0.79 and 0.80 respectively). Ideally, strategy is highly emphasized as it has an average mean score of (4.11).

Table 4: Organization strategy

Organization strategy	Irrelevant %	Less irrelevant %	Moderate %	Important %	Extremely important %	Mean	S.d
Provide on time delivery	0	3.1	9.4	37.5	40.6	4.28	.79
Make dependable delivery promises	0	3.1	12.5	40.6	34.4	4.17	.80
Provide high quality products	0	3.1	21.9	0	68.8	4.67	.66
Provide low costs	9.4	3.1	25.0	28.1	25.0	3.62	1.23
Provide unique products	6.3	6.3	21.9	21.9	37.5	3.83	1.23
Average	-	-	-	-	-	4.11	0.95

Likert scale of 1-5: 1=Irrelevant; 2=Less irrelevant; 3=Moderate; 4=Important; 5=Extremely important.

Source: Survey data

iv) Organization size and type.

The descriptive statistics for the indicators of organizational size and type are presented in the table 5 below. It can be deduced that organization size and type variables positively influence management accounting change with an overall average mean score of (3.45).The item increase in resources appear to be a more influential indicator with a standard deviation of (0.98) indicating an insignificant variation of the respondents.

Table 5: Organization size and type

Organization size and type	Irrelevant %	Less irrelevant %	Moderate %	Important %	Extremely important %	Mean	S.d
Increase in acc. staff	18.8	12.5	31.3	18.8	12.5	2.93	1.31
Expansion	6.3	6.3	25.0	34.4	25.0	3.67	1.14
Increase in resources	3.1	6.3	18.8	43.8	18.8	3.75	.98
Average.	-	-	-	-	-	3.45	1.14

Likert scale of 1-5: 1=Irrelevant; 2=Less irrelevant; 3=Moderate; 4=Important; 5=Extremely important.

Source: Survey data

v) Organization structure.

Table 6 below provides details of the descriptive statistics for items in organization structure. Improved communication was emphasized by the majority of responding organizations in which (40.6%) of the respondents rated it as extremely important with a standard deviation of (1.11). However, an interesting result is indicated by the respondents in the decentralization item where, (25.0%) rated it as an irrelevant variable in influencing management accounting change .while another (25.0%) rated the variable as extremely important and (15.6%) rating it as moderate. This clearly indicates that some Kenyan large manufacturing companies have tall structures and some have horizontal structures.

Table 6:Structural changes.

Structural changes	Irrelevant	Less Irr.	Moderate	Import.	Extremely important	Mean	S.d
	%	%	%	%	%		
Decentralization	25.0	9.4	15.6	21.9	25.0	3.13	1.56
Improved communication	6.3	0	12.5	31.3	40.6	4.10	1.11
Average	-	-	-	-	-	3.62	1.33

Likert scale of 1-5: 1=Irrelevant; 2=Less irrelevant; 3=Moderate; 4=Important; 5=Extremely important.

Source: Survey data

Overall rating of the contextual factors facilitating management accounting practices adoption .

The Table 7 presents the descriptive statistics of the overall rating of the factors facilitating management accounting change. The average mean score of (3.80) shows that these factors positively influence management accounting change. The results presented in table 4.10 show competition and organization strategy as the most influential factors relative to the others with a standard deviation of(0.78 and 0.80 respectively),indicating an insignificant variation among the respondents. This is consistent with Waweru *et el* (2004) who found competition as one of the important factors influencing management accounting change. This is also consistent with Langfield-Smith (1997), who found that strategy influences MAS and Kober *et al* (2007) argued that management control systems both shape and are shaped by strategy. Robbins (1990) emphasized on structure.

Table 7:Overall rating of contextual variables.

Contextual variables	Irrelevant	Less irrelevant	Moderate	Import	Extremely important	Mean	S.d
	%	%	%	%	%		
Competition	0	3.1	18.8	46.9	25.0	4.00	.78
Manufacturing technology	3.1	9.4	15.6	21.9	40.6	3.96	1.18
Organization strategy	0	0	28.1	34.4	28.1	4.00	.80
Organization size and type	3.1	12.5	28.1	25.0	21.9	3.55	1.12
Organization structure	9.4	9.4	25.0	18.8	28.1	3.52	1.32
Average	-	-	-	-	-	3.81	1.04

Likert scale of 1 to 5; 1=irrelevant; 2= less irrelevant; 3= moderate; 4 =important; 5= extremely important

Source: Survey data

Conclusions and recommendations

For an organization to survive with competition in the ever changing world, it must change and put in place sound management accounting practices. This is what the study sought to find out in the Kenyan manufacturing companies. The findings provide insights into the objectives the study aimed to achieve. In regard to management accounting practices adoption , the findings indicate that there has been some change in the way in which MAPs are applied or used.

The objective was to identify the factors facilitating /hindering adoption of management accounting practices. The findings from this study support the view that internal and external environments surrounding an organization have an impact on its management accounting systems. They dictate which management accounting practices are adopted most. The findings illustrated MASs as important and have to be changed in order to cope with the change in the operating business environment. Further the findings provided more evidence to prior research relating to contingent factors forcing organizations to change their management accounting practices (Waweru et al.,2004,Hoque and Hopper, 2004; Shields, 1997). The increase in global competition, structure and organization strategy were the main contextual factors facilitating the adoption of management accounting practices in the surveyed organizations.

Policy recommendations.

In enhancing the management accounting systems change adoption, the study suggests that the relevant professional accounting bodies, especially the Institute of Certified Public Accountants of Kenya (ICPAK), to establish a unit that implements and promotes the practice of advanced management accounting techniques in Kenya. There is need for the professional association to maintain their leadership role in identifying, supporting and educating on the positive changes that are taking place in the management accounting profession. This unit

will specifically need to encourage and support the interaction between accounting educators and practitioners in the country.

ICPAK accordingly is required to do proper planning and promotions needed to ensure that seminars on management accounting can be promoted to all industries including the government agencies and also to the public at large. The seminars must be held regularly to ensure members and other participants are updated with various MATs especially the advanced management accounting techniques. This unit of professional bodies must also be responsible in creating the awareness on management accounting applications to other accounting bodies. This is important in order to educate the others about the benefits, the effectiveness and the importance of management accounting change applications.

The management accounting applications can also be promoted to all industries and the public by encouraging research and writing on the advanced management accounting topics. Besides, detail explanations are needed to inform the management of manufacturing entities and the public about the difference between the management accounting field and the financial accounting area. More articles and publications on management accounting topics should be printed in journals, magazines and other media. The effectiveness of success of management accounting change applications should be written and printed to public media using a range of organizational role models to convince business organizations and public of the fact that the new management accounting practices would be relevant to their own types of firms.

Further, the unit established should actively provide consultancy, technical supports and enhance trainings to update management level of knowledge. At this workshops and professional events specific organizations and companies especially manufacturing concerns should be targeted to improve the rate of adoption of advanced management accounting techniques. Finally, it should be made mandatory for companies to incorporate management accounts reported as disclosure items in the financial statements.

Suggestions for further research.

The same research be duplicated and focus on service organizations in Kenyan context to gain more understanding on this sector as these entities have become increasingly important within most economies.

As the sample used was small the same research adopting a larger sample size using case study approach in developing countries will be more valuable as it will provide more information on the research issues surveyed in this study.

A study to be conducted on a broader scope of the contextual variables and their influence on management accounting practices adoption and impact on organizational performance in a developing country context.

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