APPLICATION OF STRATEGIC MANAGEMENT ACCOUNTING
BY LARGE MANUFACTURING COMPANIES IN NAIROBI.

BY

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT FOR THE
REQUIREMENT OF THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION, UNIVERSITY OF NAIROBI

NOVEMBER 2001
DECLARATION

This project is my original work and has not been submitted for a degree in any other University.

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To my dear wife, Jane. She has always given me inner strength and motivation to complete my MBA course.
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ACKNOWLEDGEMENTS

My special gratitude goes to my supervisor Mr. Munene Maithulia, Lecturer, Department of Accounting, Faculty of Commerce, for his guidance he gave me throughout the research and writing of this project.

I am indebted to all other faculty members of staff, particularly Mrs. Kithinji, Mr. Kariuki and Mr. Anyangu for their useful comments and feedback.

I wish to express gratitude to my all my family members for their sacrifices they made to enable me to complete this programme. In particular my special thanks goes to my dear Wife Jane and our Son Israel for their support and understanding, even when my presence as a husband and father was denied to them.

My sincere thanks go to my employer Muthoga-Gaturu & Co. Advocates who advanced me study loan to complete my studies.

Lastly but not the least, special thanks go to all my MBA classmates. To all of you, I say Ahsante Sana.
This study was conducted with the objective of finding out the types and extent to which strategic management accounting systems are applied by large manufacturing companies in Nairobi.

Developments in strategic management accounting practices have tended to reflect business circumstances in developed countries. No study has been done in Kenya investigating the practices of strategic management accounting systems and therefore this was an exploratory study.

The study had three main objectives -

To establish the type and extent to which strategic management accounting System is used in the Nairobi manufacturing sector.

To identify the factors that influenced companies to adapt to strategic Management accounting systems.

To establish any benefits / problems associated with using strategic Management accounting systems.

To achieve these objectives, primary data was collected. Data was collected through personal interviews with the financial controllers/management accountants in the
manufacturing sector. The interviews had both structured and unstructured questioners.

The data was analysed using simple description statistics. During the analysing the manufacturing sector was divided into three strata based on sub-sector classification namely; agro-based industries, mineral and industrial sector, and construction and engineering sector.

The findings from this study revealed that principally, large manufacturing companies based in Nairobi have adopted strategic management accounting techniques. The most commonly applied techniques being target costing and strategic cost analysis. Other strategic management accounting techniques such as balanced scorecard and value chain analysis did not appear to have taken root among large manufacturing companies in Nairobi.

The factors influencing manufacturing companies to adopt strategic management accounting techniques were observed to be mainly due to the need of assessing business environment and the competitors performance. Inaccessibility to external strategic information was highlighted as the major challenge in implementing strategic management accounting systems.
CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND OF THE STUDY

During the past decade, many organisations in Kenya both in manufacturing and service sector have faced dramatic changes in their business environment. In western countries, the forces of change in business environment were mainly felt during 1970s. Prior to this period most of the organisations in the western world operated in a protected environment. Service firms such as airlines were either government monopolies, or were operating in a highly regulated, non-competitive environment.

In Kenya, liberalization of the economy opened door for intensive competition from overseas companies in the domestic market. This has resulted to a situation where most companies are now competing in highly competitive global market. At the same time, there has been a significant reduction in product life cycle arising from technological innovations and the need to meet the increasing discriminating customer needs.

Protection policy by the government limited the ability of foreign companies to compete in the domestic markets. This implied that there were little incentives for firms to maximise efficiency improve management practices, or minimise costs. Cost increases were always passed over to customers.
However in the 1990s, many organisations including manufacturing companies began to encounter severe competition from foreign competitors that offered high quality products at low prices. To be successful, companies now had not only to compete against domestic competitors but also against foreign companies.

Privatisation of government controlled companies in the same period, also contributed to the changing of business environment. Pricing and competitive restrictions were eliminated. This implied that only low cost companies could compete effectively in the market.

Advancement in modern technology has similarly affected business competing environment. This has changed manufacturing production processes, which has rendered existing systems ineffective.

To compete successfully in today's highly competitive global environment, companies are adopting new management approaches, changing their manufacturing systems, and investing in new technologies. Some of these new management approaches include: Total Quality Management (TQM), Activity-Based Costing (ABC), Just In Time (J.I.T) and Strategic Management Accounting.
1.2 STATEMENT OF THE PROBLEM

In the United States, several academics as well as practitioners have highlighted the serious shortcomings of the traditional management accounting systems in corporations and have asserted that management accounting is part of the problem in the American industry today rather than part of the solution (Shank and Govindarajan 1989).

Strategic management accounting is superior because it is more outward looking to the environment as compared to traditional management system which emphasizes on internal reporting. Further, it focuses on a larger and longer-term health of an organization by reporting a comprehensive view of the business. It enables the managers to measure business performance indicators such as customer satisfaction, (customer perspective), return on investments (financial perspective), internal operations (internal business perspective), and value creation (innovation and learning perspective.)

In addition, the traditional management accounting system does not provide appropriate information to control the activities of companies operating in modern technologies. It places greater emphasis on reporting direct labour costs and efficiency while little attention is given to reporting and controlling overhead costs. It further fails to report on such issues like quality, reliability, lead time, flexibility and customer satisfaction.
Traditional product costing systems were designed when most companies had narrow range of products. Direct labour and materials were the dominant factory costs and overhead costs were relatively small. However, in today's manufacturing environment, overhead costs form the major fraction of cost. Further, most companies are multi-product companies implying that misapplication of factory overheads would result to cross-subsidies of various product. Ward (1992) observed that "Management accounting in many companies has failed to keep up with development in corporate and competitive strategies as opposed to other areas of management practice such as marketing and information technology".

As a result of various criticisms directed towards traditional management accounting systems, the Chartered Institute of Management Accountants (CIMA) commissioned Bromwich and Bhimani (1994) to investigate and review the current state and development of management accounting systems. From their report they recommended that a number of approaches and practices should be adopted to enable management accountants to respond to the current challenges. One of the recommended approaches was Strategic Management Accounting. This was because it is more externally oriented to the environment as opposed to traditional management accounting system. Other recommended approaches were Activity Based Costing systems (ABC), Customer Profitability Analysis (CPA), Total Quality Management, and Life Cycle Costing.
Based on above, the question is: Have the Kenyan Companies adopted strategic management accounting systems or are we still relying on traditional systems despite the current dynamic environment? If they have, how is it practised and what are the challenges thereof? This study sought to answer the above questions and provide evidence on the extent to which Kenyan Companies have adopted strategic management accounting with particular reference to large manufacturing industries based in Nairobi.

1.3 OBJECTIVES OF THE STUDY

1. To establish the type and extent to which strategic management accounting system is in use in large manufacturing industries based in Nairobi.

2. To identify the factors that influence companies to adopt strategic management accounting systems.

1.4 JUSTIFICATION OF THE STUDY

1. The study will highlight to Management Accountants on the benefits of implementing strategic management accounting system in order to gain competitive edge in dynamic environment.

2. The study will benefit practitioners and consultants in management accounting in helping them to understand the nature and approaches of strategic management accounting systems used by various companies.

3. The study will stimulate interest among academicians and encourage further research in strategic management accounting, and help in building the body of knowledge in management accounting.
2.1 Definition and Concepts of Strategic Management Accounting.

Strategic management accounting is that aspect of management accounting in which emphasis is placed on information, which relates to external factors to the firm, as well as non-financial information, and internally generated information. Simmonds (1981) defined strategic management accounting as that area which deals with "Provision and analysis of management accounting data of a business and its competitors for use in developing and maintaining the business strategies, with particular reference to relative levels, and trends in real costs, prices, volumes, marketshare, cashflow, and the proportion demanded of a firm's total resources." He saw it as the collection of management accounting information about a business, and its competitors for use in developing and monitoring the business strategy. A key element of the above definition is the question of relative rather than absolute analysis, emphasis on external factors to the firm, and non-financial information. This makes a distinction between Strategic management accounting and Traditional management accounting, which has historical emphasis.

Strategic management accounting is a recent approach to management accounting. Porter (1985) assesses different industries in terms of their long-term profitability. He identified five competitive forces that contribute to competitive equation. These are threat of new entrants into the market, threat of substitute products, rivalry among existing organisations, bargaining power of
suppliers and consumers. Bromwich and Bhimani (1989) sought to compare relative cost of product attributes with what the customer is willing to pay for them.

Shank & Govindarajan (1993) defined strategic management accounting as that aspect of cost analysis where strategic elements becomes more conscious, explicit and formal. Cost data is used to develop superior strategies to gain sustainable competitive advantage.

With the vigorous global competition, rapid progress in product and process technology, management accountants have no alternative rather than to adopt strategic approach in collecting and analysing information for effective decision-making.

2.1.1 Value Chain Analysis.

The value chain for a firm in any business is the linked set of value creating activities from the suppliers to the consumers (Shank & Govindarajan, 1993)

It has a broad focus external to the firm which involves seeing the organisation from the context of overall chain of value creating activities of which its is only apart, from basic raw materials components to the end use consumers.
It calls for an awareness of the supply’s chain cost and their likely effect on the operations of the organisation.

Value chain analysis further involves exploiting opportunities in the customer linkages for the benefits of the firm. It deals explicitly with the relationship between what a customer pays for a product and the total cost the customers incurs over the life cycle of using a product. Explicit attention to post purchase costs by the customer can lead to more market segmentation and product positioning. It involves designing product that will reduce post purchase costs of the customer which can be a major weapon in capturing competitive advantage.

2.1.2 Strategic Positioning.

According to Porter (1985), strategic positioning refers to how the firms choose to compete in the market. A business can compete either by having lower cost (cost leadership) or by offering superior products (product differentiation). Since differentiation and cost leadership involves different managerial mindsets, they also involve different cost analysis perspective.

2.1.3 Cost Drivers.

Cost drive refers to the factors that cause cost to be incurred. In management accounting, cost is a function primarily of output volume. Shank & Govindarajan (1993) identified five strategic choices by the firm that drive cost position for any product: -
(a) Scale: How big is the investment?
(b) Scope: Degree of vertical integration.
(c) Experience: How many times in the past the firm has already done what it is doing again.
(d) Technology: What process technologies are used at each step of the firm's Value chain.
(e) Complexity: How wide a line or products of the services to offer to customers.

2.2 Pitfalls of Traditional Management Accounting.

Johnson and Kaplan (1987) claimed that firms were using Management Accounting practices that had been developed over 30 Years ago. They argued that traditional systems were no longer relevant in today's competitive and manufacturing environment. They criticized traditional management accounting for failing in the following areas:

2.2.1 Management Accounting Practices Follow and Have Become Subservient to Financial Accounting Requirements.

Johnson and Kaplan argued that management accounting is influenced by financial accounting requirements. They noted that Product costs that were computed for financial accounting purposes were also being used by operating executives for decision-making. Costs based on principles of financial accounting provides a satisfactory estimates for allocating costs between cost
of sales and inventories for external reporting purposes. However, it distorts individual product costs through cross-subsiding arising from this allocation of overheads costs.

A Study done by Drury et al in U. K. (1993), reported that 97% of companies prepare internal profit statements and value their stocks on absorption costing basis instead of marginal costing which gives better results for decision making. It was further observed that companies adopt financial accounting rules to generate management accounting information in order to be consistent with external financial accounting reporting requirements.

2.2.2 Failure to Respond to Changes in Manufacturing Environment.

Further traditional management accounting system has been accused for being unable to adapt to modern technologies (Drury C 1996). With advancement in technologies, many companies have adopted modern management philosophies, which have affected production process in many organisations. These philosophies include Total Quality Management (TQM), Just In Time (JIT) and Business Process Re-engineering (BPR). Competition has changed manufacturing environment because the organisations are expected to provide high quality products at a relatively low cost and provide quality customer Services.
The emphasis now is on quality delivery; innovation and flexibility in order to meet customer's needs. This has caused problems in using traditional management system in terms of how to compute product costs, how to modify control systems and how to measure performance.

Modern technology has resulted to change in cost behaviour patterns such that firm's costs have become fixed in the short term. Direct labour costs represents only a small proportion of total manufacturing costs. Traditional management accounting places greater emphasis on reporting direct material and overhead costs. It also fails to report on such issues as quality, reliability, lead-time, flexibility and customer satisfaction, which as become a focus for many organizations.

2.2.3 Traditional Product Costing Systems Provide Misleading Information For Decision Making.

Cooper and Kaplan (1990) further argued that traditional management accounting has failed to correctly allocate overheads to products. Full product costs are computed in order to meet financial accounting requirements, hence are not suitable for decision-making. A survey carried out by Dean, Joye, and Blayney (1991) in Australia among managers reported that they encountered the following difficulties in implementing their cost allocations programs:

- allocations were perceived as arbitrary,
• usage was hard to monitor,
• agreement on allocation method was difficult to obtain.
• The allocation process was also time consuming.

Traditional product costing system was designed when most companies had narrow range of products, overheads costs were relatively small and information processing costs was high. However, in today's environment, multi-product companies need to allocate overheads in order to avoid cross-subsidies. Further overhead cost forms a major component of overall cost and compared to earlier days. Information processing cost has become smaller due to advance in technology.

2.2.4 Relatively Little Attention is Given to External Environment.

Traditional management accounting has been accused of being heavily biased towards internal comparisons of costs and revenues ignoring external environment which business operates. Harris Research Centre (1990) report on strategy formulation found out that "The use of external information is generally rare. Company annual reports are the most popular published sources of strategic information". Traditional approach of measuring profits does not provide the required information for strategic decision making.

Further, traditional management accounting ignores strategic indicators of performance such as customer satisfaction and competitor's strength, which provide advance signal of the need to change competitive strategy. A
successful business strategy requires development and maintenance of some form of sustainable relative competitive advantage. Therefore management accounting information should highlight the relative competitive positioning of the organisation.

2.3 Approaches to Strategic Management Accounting.

Simmonds (1981).

He argued that management accounting should be more outward looking. It should help the firm to evaluate its competitive position relative to the rest of the industry by collecting data on costs, prices, sales, volumes, and market shares, cash flow and resources availability for its main competitors.

To protect organisation strategic position and determine strategies to improve its future competitiveness, managers require information and indicate by whom, by how much, and why they are gaining and being beaten. He stressed use of learning curves as a means of obtaining strategic advantage by forecasting cost reductions and consequent selling price reductions of competitors.

Organisations can also seek to gain strategic advantage by its pricing policy. This can be achieved by assessing each competitor costs and structure and relate this to their prices. Further assessment can be done on cost volume profit relationship of competitors in order to predict their pricing responses.
Examination of relative market share will indicate the strengths of different competitors.

2.3.1 Porter M. (1985).

Porter is one of the main exponents of Strategic Management Accounting. He takes two approaches to strategic management accounting. First, he assesses different Industrial In terms of their long-term profitability. He saw Five (5) competitive forces that would contribute to a strategic equation.

a) The Threat of New Entrants Into the Market.

Threat of entry is influenced by the cost of entry into the market and the opportunity to make profit. This implies that the larger the organisation, and the move the investment required, the less likelihood of any competition.

b) The Threat of Substitute Products or Services.

Threat of substitute products determines the long-term profitability of an industry. Existence of close substitute for a particular product implies that the producer cannot enjoy super-normal profits, since customers will shift consumption to a substitute product.

c) Rivalry Amongst Existing Organisations Within the Industry.
Rivalry between competing producers will determine the price charged for products and profit levels. Intense competition leads to adoption of strategic policies such as amalgamation and mergers.

d) **The Bargaining Power of Suppliers.**

Where the suppliers have bargaining power over the buyers, they will influence the price of inputs, which will determine profitability of the industry. Further suppliers can form cartels, which regulate and determine prices charged for their products.

e) **The Bargaining Power of Consumers.**

Bargaining power of consumer's influences prices of products. Where consumers have bargaining power, they can influence prices charged on the products and thus determine level of profitability.

Secondly, Porter poses the question about the enterprises relative position within its industry. Position is important because it influences the ability of the business to generate profits greater or less than the industry average. Above average returns may be delivered by sustainable competitive advantage. This is achieved by three (3) basic generic strategies.

(i) **Cost Leadership.**

This is where the firm aims to be the lowest cost producers within the industry. This is achieved by scale economies capitalizing on experience curve effects, light cost control and cost minimization. He advocated use of strategic cost
analysis by first identifying firms with value chain. Value chain refers to a set of linked activities from supplies to end use products. It further involves identifying the value chain and the operation cost drivers of competitors in order to understand relative competitiveness.

(ii) **Differentiation.**

This is where the enterprise seeks to offer some unique dimensions in its product/services that is valued by customers which commands a premium price. This is achieved by image, supervision, customer service solutions, dealer network and support and produce design.

(iii) **Focus.**

This involves enterprises seeking advantage in a narrow segment of the market either by way of cost leadership or by product differentiation. It involves focus to a narrow segment to the exclusion of other.

Porter identified the value chain as the next approach in strategic management accounting. Value is what the customers are prepared to pay. This is a function of image of the product. The element of value chain includes, firm's infrastructure, Human resources development, technology development, procurement in bound and outbound logistics, marketing and sales, and finally services. Value chain analysis involves assessing the impact of cost drivers on each of the above elements. The cost of these elements must produce satisfactory margin. Strategic advantage is identified if the total cost of value chain elements is less than that of competitors.
In summary strategic cost analysis involves identifying the value chain and the operation of cost drivers of competitors in order to understand relative competitiveness. Porter advocated that organizations should use this information to identify opportunities for cost reduction, either by improving control of cost drivers or re-configuring the value chain.

2.3.2 Bromwich and Bhimani (1989, 1994).

They sought to compare relative cost of product attributes with what the customer is willing to pay for them. A firm market share depends on the match between the attributes provided by its products and consumers tastes and on the supply of attributes by competitors. He argued that it is product attributes (Operating performance variables, reliability, warrants, arrangements, physical features, after sale service and assurance of supply) which need to be subject to appropriate analysis.

They concluded that information about a products demand and cost factors pertaining to attributes possessed by a firms' products and those of its rivals is need for optimal decision making.

2.3.3 Target Costing Approach.

Target costing is a management tool for reducing the overall cost of a product over its entire life cycle. It is not an approach that stops once a new product has been launched. Target costs are established by taking projected market prices and backing out the desired margin to arrive at a target costs.
Target costs are set as benchmark for budgeting purposes and variance analysis, as part of long run strategy to be market leaders. Target costs are also used as standard costs to be embed in low cost producer strategy in the accounting control system.

Target costing was initially developed by Japanese Companies but currently; it has been adopted by western companies (Drury C 1996).

2.4 Performance Measurement in Strategic Management Accounting.

Strategic management accounting focuses on a larger picture and a longer-term health of an organisation than traditional management accounting (Kaplan & Norton 1996). Traditional management accounting focused on financial performance measures such as return on investments and profitability as the only means of determining growth in a firm. Wilson and Chua (1993) argued that financial measures such as return on investment (ROI) are susceptible to short term manipulation.

The danger of relying on financial measures is that managers tend to concentrate on only financial variables and ignore other strategic variables such as customer satisfaction and employee morale, which would affect future health of the organisation. Further financial performance measures reports are always too late to be of any value in controlling production operations.

Strategic management accounting focuses on both financial and non-financial measures in determining the performance of an enterprise. Balanced scorecard an approach pioneered by Kaplan and Norton gives a wider scope of
organisation performance. Balanced scorecard is a set of measures that give top managers a fast but a comprehensive view of the business. It allows managers to look at the business from four different perspectives by seeking to provide answers to the following questions:

- How do customers see us? (Customer perspective)
- What must we excel at? (Internal perspective)
- Can we continue to improve and create value? (Innovation and Learning Perspective.
- How do we look to shareholders? (Financial Perspective)

Kaplan and Norton pointed out that the balanced scorecard meets two major managerial needs. First, the balance scorecard brings together in a single management report many of the seemingly disparate elements of a company’s competitive agenda. Secondly, the scorecard guards against sub-optimization by forcing senior managers to consider all the important operational measures together and thus ensure that no one area is advanced at the expense of another. The aim of the balanced scorecard is to provide a comprehensive framework for translating a company’s strategic objectives into a coherent set of performance measures.

Typical set of performance measures captured by balanced scorecard are:

a) Financial Perspective
• Return on Capital
• Cash flow
• Revenue and profit growth
• Market share

b) **Internal Business Perspective**
• Manufacturing life cycle
• Process yield
• Quality measures
• Time to the Market

c) **Innovation and Learning Perspective**
• New Product In production –Vs- competition
• Percentage sales from new products
• Success of continuous improvement program.

d) **Customer Perspective**
• On time delivery
• Lead time from receipt of order to delivery to customer
• Defect level

2.5 **Role of Management Accountants in Achieving Organizations Corporate Strategy.**

Management Accountants can play a key role in achieving Organization Corporate Strategy by:
a) Linking quality product characteristics to their underlying costs such as quality.

b) Quantifying the cost advantage that a Company has relative to existing or potential competitor.

c) Providing timely feedback on performance and fiscal control over discrete projects in product expansion or company acquisitions.

d) Exert control over day to day activities by providing benchmarks for measuring progress towards strategic objectives and to tailor reports accordingly.

e) Emphasize the flexible basis for the data to be able to provide forecasted or simulated results under various competitive strategies.

f) Provide oversight and advice on data reliability provided by other companies in strategic alliances and the basis for contracts.

g) Provide accurate and reliable feedback on the relative success or failure or company mission. This can be achieved by cautious allocation of overhead and carrying out sensitivity analysis on the impact of changes on sale mix so that capacity constraints and contract feasibility can be evaluated.

In summary, while the changing competitive environment in the manufacturing industry has forced many companies to adopt modern philosophies of management, the Management Accountant can play an integral strategic role by supporting their organisations to achieve strategic objectives.
2.6 **Overview of Kenya Manufacturing Sector.**

The manufacturing sector in Kenya plays a key role in the economic development of the Nation. However, due to economic recession currently affecting the economy, the growth rate of the industry has been slowed down. Currently the industry, is expected to grow at rate of 0.9% compared to 3.9, 3.4 and 1.9 in 1995, 1996 and 1997 respectively.

The sector was developed under import substitution policy (1967) but the policy emphasis now is export-oriented industrialisation. The sector is heavily relies on production of consumer goods. There is little production of intermediate and capital goods (Coughlin & Ikiara 1988).

Government participation in the manufacturing sector is smaller as compared to private enterprises due to privatisation policy. Within the private sector, companies are owned and operated by both local and foreign investors (Kenya Government economic survey 1997). Most foreign companies are subsidiaries of multinational corporations.

Manufacturing sector can be classified under 3 (three) main sectors: -

(a) **Agro-Based Industrial Sector**

This sector contributes above 89% of the value added in the manufacturing sectors. It includes sub- sectors such as food processing, animal feeds, beverages and tobacco, tanneries and leather products, woods and wood products, pulp and paper industries (K.A.M. 1998 /1999).

(b) **Chemical and Mineral Industrial Sector**
It includes sub-sectors such as industrial chemicals, fertilisers, salts, pesticides and pharmaceuticals (drugs).

(c) **Engineering and Construction Industrial Sector**

It includes sub sectors such metals and fabricated metal products, machinery and equipment, furniture and fixtures transport machinery and equipment, and miscellaneous machinery. The sector relies heavily on imported raw material and contributed about 12% of the value added in manufacturing sector (K.A.M 1998/9).

The future survival of manufacturing sector in Kenya will depends on ability to improve their quality in order to compete effectively in the global market.
CHAPTER THREE: RESEARCH DESIGN

3.1 Introduction

This chapter sets out the various steps that were necessary in executing the study thereby satisfying its objectives. The objective of the study was to investigate the extent of application of strategic management accounting concepts, factors influencing their adoption, benefits and difficulties associated with it.

3.2 Population of the Study

The population of the study was all large manufacturing companies, both public and private enlisted in the Directory of Kenya Association of Manufacturers and operating within Nairobi. Most companies operate within Nairobi and thus the reason why the study focused on this area. The concentration of large manufacturing industries in Nairobi can largely be attributed to factors such as availability of ready market for their products due to higher per capita income, superior infrastructure, and availability of skilled manpower.

Further, the manufacturing companies in Nairobi were found to represent all categories of manufacturing concerns in the sector. It was therefore felt that a study of manufacturing firms in Nairobi would give findings that represent the whole country. The choice of Nairobi was also based on the fact that it was more convenient in terms of accessibility in data collection given the time constraint.
The study focused on large manufacturing firms because it was presumed that they have adopted modern management approaches such as strategic management accounting, given the impact of globalisation and advance in technology. It was further presumed that due to costs involved, small firms may not have fully embraced advanced manufacturing technology and therefore the current study did not focus on small manufacturing industries. It was further felt that large firms would have access to human, physical and financial resources to adopt modern management approaches.

According to Aosa (1992), small companies are those employing less than 50 employees. The number of employees was used as the proxy for size. This criterion is probably a good measure of the complexity of the management structure of a company.

3.3 The Sample Size and Sampling Design

The sample frame adopted was that of companies enlisted in the Kenya Association of Manufactures (KAM) 1999 Directory. This platform was chosen because it was felt to be the most comprehensive directory to be able to capture manufacturing industries in Kenya.

A Sample of 50 companies was picked from the Directory. Dixon and Leach (1984) advised that adequacy, and resources considerations should determine the size of the sample. By adequacy we mean that the sample should be big
enough to enable reasonable estimates of variables to be obtained, capture variability of responses, and facilitate comparative analysis. Considering that the researcher was conducting the interviews alone with limited resources and time, a sample of 50 was considered large enough to give a general view of nature strategic management accounting systems, and thus provide basis for valid and reliable conclusions. Wanjere (1999) and Nzule (1999) used samples of 40 and 35 respectively for their studies.

In order to ensure that there was wide representation of the data collected, the sample was further classified into strata, which had similar characteristics. It was assumed that the sub-sectors within the manufacturing sector have similar characteristics and therefore qualified to form various strata. Therefore stratified sampling was used to ensure that all sub-sectors were represented. This approach was similarly used by Wanjere (1999).

Consequently, simple random sampling was used to pick units to be studied from each stratum. The firms in various strata were numbered. The starting point was determined by randomly and thereafter every 5th (five) firm was picked until the required number per stratum was obtained. In case the 5th unit was a firm which does not fall into the category of manufacturing firm, the next unit was picked.

3.4 Data Collection.

The study used Primary data, which was collected through questionnaires.
The questionnaires were personally administered. The questionnaires were addressed to financial controllers. The process involved booking appointments with the person to be interviewed through telephone call. This was followed by physical visit to the premises by the interviewer. Some of the respondents were not available for interview and therefore drop and pick method was used. In some few cases, the financial controllers were not completely available for interview which they delegated the assignment to their assistants.

A semi-structured questionnaire with both open ended and closed-ended questions was used to capture both qualitative and quantitative data. Open-ended questions were necessary to obtain qualitative information about the reasons behind adopting strategic management practices. Closed-ended questionnaires were aimed at obtaining data for statistical analysis.

The Questionnaire had three parts (A, B, C.). Part A aimed at obtaining Company characteristics data such as nature of ownership, type of business, sale turnover, and number of employees. It contained closed ended questions. The data obtained was to help in general classification of the firms that responded.

Part ‘B’ had structured Questions, which was meant to capture the general overview of how the companies apply Strategic Management Accounting,
approaches used, familiarity with the systems, and problems encountered. It also sought to obtain the various factors that influence the adoption of strategic management accounting.

Part 'C' was meant to capture the views of financial controllers on usefulness of Strategic Management Accounting system to their Organisations, and future prospect for strategic management accounting practice in Kenya.

3.5 Data Analysis.

Data collected was analysed by use of both descriptive and statistic tools. The data was at first edited for accuracy, uniformity, completeness and classification. The summary classification was based on the year of establishment, industry classification, nature of ownership, number of employees, and sales turnover.

The data was further summarised on the basis of strategic management accounting techniques applied by various companies, factors influencing adoption of the above techniques, and difficulties encountered in their application.

Descriptive statistics was used to analyse the data. The analysis was tailored to respond to the set objectives so as to reach reliable conclusion.
The analysis and responses were summarised into the following sections.

(a) Overview of the data collected and analysed

(b) Nature of accounting systems used by manufacturing sector.

(c) Types and extent to which strategic management accounting techniques are applied.

(d) Extent to which external strategic information is used in decision making

(e) Methods of collecting external information for decision making

(f) Factors influencing adoption of strategic management accounting practices

(g) Benefits that companies derive from adopting this approach

(h) Difficulties in implementing strategic management accounting approaches
CHAPTER FOUR: DATA ANALYSIS AND RESEARCH FINDINGS

4.1 Introduction

This chapter summarises the data collected and discusses the findings of the study. It contains eight sections namely overview of data collected, nature of management accounting systems, familiarity with strategic management accounting techniques, extent of usage of external information in decision making, methods of collecting this information, reason for adoption of strategic management accounting techniques, benefits accruing to using this techniques and the challenges thereof.

4.2 Overview of the Data Collection and Analysis.

Out of the fifty (50) questionnaires sent out / firms visited, thirty-nine (39) companies responded to the questionnaire. From the eleven (11) companies which did not respond, 6 declined citing confidentiality of the information sought. The other five questionnaires were not obtained because the respondents were simply too busy to avail the information. Therefore the response rate was 78%. This high response rate could probably be explained by the fact that most of respondents showed a lot of interest in this new area of strategic management accounting.

Tables Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 shown below gives a summary response of each question in the questionnaires.
In overall, out of 39 companies that responded to the questionnaire, 28 were from agro-based sector (71%), 6 which (16%) were from mineral and industrial sector and 5 (13%) from engineering and construction sector.

Our findings reveal that most of the manufacturing firms interviewed were established after 1950s (69% of the respondent). This could be attributed to the fact that the new Kenyan government, which was formed after independence, mobilized local and foreign resources in order to boost African of the economy. 25% of the respondent
companies indicated that they were established between 1901 and 1950. Very few interviewed companies were formed before 1900 (16%).

### Table 3: Summary of firms as per Company Ownership

<table>
<thead>
<tr>
<th>Type of Ownership</th>
<th>Number of firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locally Owned</td>
<td>15</td>
<td>38%</td>
</tr>
<tr>
<td>Foreign Owned</td>
<td>16</td>
<td>41%</td>
</tr>
<tr>
<td>Joint Ownership</td>
<td>8</td>
<td>21%</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: research data

As illustrated by the table above the company ownership of the sample interviewed is fairly spread among the 3 classes. That is, local ownership, foreign ownership, and joint ownership. Local ownership refers to those companies which are 100% owned by Kenya nationals. Joint ownership refers to those companies which are partly owned locally and foreign regardless of the proportion of shares. Foreign owned companies are mainly subsidiaries of mullet-national companies and have no proportion of local share ownership.

Out of the companies studied, 38% were locally owned, 41% foreign owned. And 21% were jointly owned. The nature of ownership was important to this study because it gave the general characteristics of the firms studied.

The average turnover measures the volume of activity in the company. It also determines profitability of the Company. The Managers level of efficiency can be measured by the ability to maximise turnover levels. This calls for use of modern
Management tools such as strategic Management accounting concepts in order to gain competitive advantage in a shrinking market. Therefore, turnover is an important element in this study. It is expected that at different levels of turnover, different strategic management accounting techniques will be used. The average turnover of respondents is summarized above.

Table 4: Summary of firms as per average turnover

<table>
<thead>
<tr>
<th>Average turnover</th>
<th>Number of firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 500m</td>
<td>7</td>
<td>19%</td>
</tr>
<tr>
<td>Between 500m - 1 Billion</td>
<td>19</td>
<td>48%</td>
</tr>
<tr>
<td>Between 1 - 10 Billion</td>
<td>9</td>
<td>23%</td>
</tr>
<tr>
<td>10 Billion and above</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>39</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research data

The study reveals that out of the sample interviewed, 19 companies (48%) had average turnover of between Kshs. 500 m – 1 Billion, 9 companies had over 10 Billion sales turnover and 7 companies had sales turnover below Kshs. 500 Million.
Table 5: Summary of firms as per number of employees

<table>
<thead>
<tr>
<th>Number of employees</th>
<th>Number of firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Between 50 - 500</td>
<td>32</td>
<td>82%</td>
</tr>
<tr>
<td>Between 500 - 1000</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>Over 1000</td>
<td>3</td>
<td>9%</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research data

Out of the firms studied, 3 companies (9%) had over 1000 employees, 4 companies (10%) of the firms had between 500-1000 employees, 32 companies had between 50-500 employees. More had less than 50 employees which was the defining limit for the study.

4.4.0 Specific Analysis and Findings.

4.4.1 Nature of Accounting Systems Used.

Understanding the nature of accounting system used by various companies was important in this study because it influences the nature of accounting techniques used by the firm. Strategic management accounting techniques are more efficiently practised in a computerised environment. The table below summarises the nature of accounting systems used by the firms interviewed.
Table 6: Summary of firms as per nature of accounting systems used.

<table>
<thead>
<tr>
<th>Nature of accounting system</th>
<th>Number of firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computerised systems</td>
<td>33</td>
<td>84 %</td>
</tr>
<tr>
<td>Manual</td>
<td>6</td>
<td>16 %</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>39</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

Source: Research data

It can be observed that more than three-quarters of the respondents used computerised accounting systems. 33 companies indicated that they used computerised accounting systems as compared to 6 companies which were using manual system. Computerised systems are more efficient in collecting and analysing information for decision making. Hence it facilitates application of strategic management accounting concepts.

4.4.2 Extent of Adoption of Strategic Management Accounting Approaches.

One of the objectives of this study was to find out the extent to which strategic management accounting concepts are applied in the Kenyan large manufacturing sector. This was captured by question No 7 in the questionnaire.

Table 4.4.2 below summarises the findings:

Table 7 Extent of adoption of strategic management accounting approaches.

<table>
<thead>
<tr>
<th>Approach</th>
<th>No. Of Companies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopted</td>
<td>25</td>
<td>64 %</td>
</tr>
<tr>
<td>Not adopted</td>
<td>14</td>
<td>36 %</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>39</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research data
From the study, 30 companies of the sample interviewed indicated that they have adopted strategic management accounting approaches as compared to 9 companies which indicated that they had not adopted the above approach.

It should be noted that more respondents indicated that they have computerised accounting system as compared to those who have adopted strategic management accounting approach.

This would give an indication that it is not obvious for the firms which have computerised accounting systems to have adopted strategic approaches in management accounting. Computerised accounting systems only facilitate collection and analysis of information for decision-making.

4.4.3 Types and Extent of Use of Various Strategic Management Accounting Techniques.

There are various techniques used in strategic management accounting. This section sought to know the specific techniques used and the level of application by the large manufacturing industries in Nairobi. This information was captured by question No 8(b) of the questionnaire. The Table below shows the breakdown in the use of various strategic management accounting techniques.
Table 8 Summary of strategic management accounting techniques in use.

<table>
<thead>
<tr>
<th>TECHNIQUES</th>
<th>PERCENTAGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NEVER</td>
</tr>
<tr>
<td>Target Costing</td>
<td>4.0</td>
</tr>
<tr>
<td>Strategic Cost Analysis</td>
<td>9.4</td>
</tr>
<tr>
<td>Balanced score card</td>
<td>52.6</td>
</tr>
<tr>
<td>Competitors analysis</td>
<td>0</td>
</tr>
<tr>
<td>Value Chain Analysis</td>
<td>22.7</td>
</tr>
<tr>
<td>Relative market share</td>
<td>7.2</td>
</tr>
<tr>
<td>Value Added analysis</td>
<td>11.4</td>
</tr>
</tbody>
</table>

Source: Research data

The study revealed that Target costing is the most commonly used techniques of strategic management accounting with 57.3% of companies interviewed indicating they always used this tool. This could be explained by the fact that through this approach, firms can easily obtain strategic information for decision making from market research data as compared to obtaining competitors internal information. Target costing is driven by external market factors such as economic trends, and changes in business environment which can be easily accessed through secondary
data. This was followed by strategic cost analysis with 42.1% of the respondent indicating that they always used this approach.

Balanced scorecard and value-chain analysis came out as the least used techniques. 52.6% of respondent indicated that they have never used balanced scorecard. Further, 35.1% of respondent indicated that they rarely used value chain analysis in their decision making process. This low percentage could be attributed to the fact that balanced scorecard is a very recent approach used in performance measurement in organisations. This approach was pioneered by Kaplan & Norton in 1992. Many organisations in Kenya focuses on maximising profits between purchases and sales and ignore the linked set of value creating activities from raw materials sources to the final users (consumers). Hence low application of value chain analysis which looks at the broader perspective of value creating activities. This gives an indication that many organisations are yet to come out of traditional management accounting internal approaches to business.

4.4.4 The Extent to Which External Strategic Information is Considered in Decision Making.

As observed earlier, strategic management accounting lays emphasise on information external to the firm. This section sorts out to know the extent to which external information is considered in decision making. This data was captured through question No 9 in the questionnaire. Table 9 summaries the results below:
Table 9: use of external strategic information in decision making.

<table>
<thead>
<tr>
<th>EVENT</th>
<th>NEVER</th>
<th>RARELY</th>
<th>SOMETIMES</th>
<th>OFTEN</th>
<th>ALWAYS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>General economic trends</td>
<td>0</td>
<td>4.0</td>
<td>14.9</td>
<td>18.1</td>
<td>63.0</td>
<td>100</td>
</tr>
<tr>
<td>Technological changes</td>
<td>0</td>
<td>7.6</td>
<td>16.3</td>
<td>24.4</td>
<td>51.7</td>
<td>100</td>
</tr>
<tr>
<td>Market trends analysis</td>
<td>0</td>
<td>5.8</td>
<td>11.10</td>
<td>26.6</td>
<td>56.5</td>
<td>100</td>
</tr>
<tr>
<td>Political risk analysis</td>
<td>6.7</td>
<td>26</td>
<td>33.7</td>
<td>11.8</td>
<td>21.8</td>
<td>100</td>
</tr>
<tr>
<td>Competitors Analysis</td>
<td>5.8</td>
<td>14.0</td>
<td>26.7</td>
<td>24.7</td>
<td>28.8</td>
<td>100</td>
</tr>
<tr>
<td>Value chain Analysis</td>
<td>32.1</td>
<td>21.7</td>
<td>21.4</td>
<td>16.5</td>
<td>8.3</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research data

The study revealed that most of the companies considers external information in decision making. Over 60% of all the companies interviewed indicated that they always considered general economic trends, technological changes and marketing trends.
This could be explained by the fact that liberalisation of the economy opened door to intense competition which has changed the business environment. Therefore its paramount for companies to consider external parameters in making decisions.

Only 11.8% of the companies interviewed indicated that they often considered political risk analysis in decision making. This can be partly attributed to the fact that Kenya has enjoyed relatively stable political environment as compared to other countries within the East Africa region.

4.4.5 Factors that Influence Companies to Adopt Strategic Management Accounting Systems.

In this section, the reasons that motivate companies to adopt strategic management accounting approaches were analysed. They were ranked as follows: Very Important (Very Imp.), Important (Imp.), Not Important (Not Imp.), and Irrelevant (Irr.). The ranks were given weights 4, 3, 2, & 1 respectively. The Table below summaries the findings.
Table 10 Summary of factors influencing companies to adopt strategic management accounting systems.

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>VERY IMPORTANT</th>
<th>IMPORTANT</th>
<th>NOT IMPORTANT</th>
<th>IRRELEVANT</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better performance measures</td>
<td>48.3</td>
<td>39.6</td>
<td>9.2</td>
<td>2.9</td>
<td>100</td>
</tr>
<tr>
<td>Facilitate decision making</td>
<td>35.7</td>
<td>28.6</td>
<td>27.2</td>
<td>8.7</td>
<td>100</td>
</tr>
<tr>
<td>Improve Management control</td>
<td>10.7</td>
<td>24.3</td>
<td>35.6</td>
<td>29.4</td>
<td>100</td>
</tr>
<tr>
<td>Need to assess competitors</td>
<td>53.5</td>
<td>31.6</td>
<td>10.4</td>
<td>4.5</td>
<td>100</td>
</tr>
<tr>
<td>Better customer profitability</td>
<td>8.3</td>
<td>26.6</td>
<td>36.3</td>
<td>28.8</td>
<td>100</td>
</tr>
<tr>
<td>Need to assess environmental</td>
<td>56.2</td>
<td>29.1</td>
<td>11.7</td>
<td>3.0</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research data
From the study, the main factors that influenced companies to adopt Strategic Management accounting system are Need to assess business environment, Need to assess competitors performance and enhance performance measurement in the organisation. 53.5% of the companies interviewed indicated that it was very critical for them to assess business environment and therefore the need to adopt strategic management accounting systems techniques.

The least ranked factors for adopting Strategic management accounting systems techniques was the need for better customer profitability analysis, followed by need to improve management control.

Therefore, the driving force propelling respondents to adopt strategic management accounting systems techniques was the need to understand competitors performance and the general business environment.

4.4.6 Benefits of Using Strategic Management Accounting Techniques.

Organisations would adopt strategic management accounting techniques, if they believe that they will obtain tangible benefits from it. This would help explain the extent to which strategic management accounting approaches are in use in Kenya. This information was captured by question No 11 in the questionnaire which sought to find out the rating of the benefits that accrue to a company by adopting strategic management accounting systems. The findings are summarised in table 11.
Table 11 Benefits of using strategic management accounting techniques.

<table>
<thead>
<tr>
<th>BENEFITS</th>
<th>GREATER EXTENT</th>
<th>MODERATE EXTENT</th>
<th>LITTLE EXTENT</th>
<th>NOT APPLICABLE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better management control</td>
<td>16.5</td>
<td>33.6</td>
<td>37.3</td>
<td>12.6</td>
<td>100</td>
</tr>
<tr>
<td>More accurate customer profitability analysis</td>
<td>14.3</td>
<td>19.3</td>
<td>43.1</td>
<td>23.3</td>
<td>100</td>
</tr>
<tr>
<td>Ability to assess competitors performance</td>
<td>50.2</td>
<td>28.9</td>
<td>15.7</td>
<td>5.2</td>
<td>100</td>
</tr>
<tr>
<td>Ability to scan the environment</td>
<td>57.6</td>
<td>26.1</td>
<td>16.3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Better performance measures</td>
<td>12.7</td>
<td>31.6</td>
<td>47.3</td>
<td>8.4</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research data
The main benefits of adopting strategic management accounting were the ability to assess business environment (57.6%), and Competitors performance (50.2%). This is in line with the factors for adopting the approaches cited above. These benefits related to the areas of application and the factor influencing their adoption.

Customer profitability analysis and better performance measurement were ranked behind ability to scan environment and assess competitors performance.

Therefore, strategic management accounting systems are widely used for assessing business environment and competitors' performance.

4.4.7 Difficulties of Implementing Strategic Management’s Accounting Approaches.

This section sort to understand the difficulty experienced in implementing strategic management accounting techniques. This was captured by question No 12 in the questionnaire.
Table 12. Summary of difficulties of implementing strategic management accounting techniques.

<table>
<thead>
<tr>
<th>DIFFICULTY</th>
<th>GREATER EXTENT</th>
<th>MODERATE EXTENT</th>
<th>LITTLE EXTENT</th>
<th>NOT APPLICABLE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer resources constrain</td>
<td>22.3</td>
<td>37.8</td>
<td>22.1</td>
<td>17.8</td>
<td>100</td>
</tr>
<tr>
<td>Lack of trained personnel</td>
<td>36.2</td>
<td>25.8</td>
<td>27.6</td>
<td>10.4</td>
<td>100</td>
</tr>
<tr>
<td>High cost of implementation</td>
<td>20.7</td>
<td>35.4</td>
<td>34.3</td>
<td>9.6</td>
<td>100</td>
</tr>
<tr>
<td>Lack of top management support</td>
<td>3.7</td>
<td>4.3</td>
<td>37.4</td>
<td>54.6</td>
<td>100</td>
</tr>
<tr>
<td>Resistance to change</td>
<td>8.6</td>
<td>44</td>
<td>29</td>
<td>18.4</td>
<td>100</td>
</tr>
<tr>
<td>Inaccessibility of external info</td>
<td>51.8</td>
<td>28.3</td>
<td>17.3</td>
<td>2.6</td>
<td>100</td>
</tr>
<tr>
<td>Inadequate training</td>
<td>43.0</td>
<td>34.6</td>
<td>13.0</td>
<td>9.4</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research data

From the study the main difficulty experienced in implementing strategic management accounting systems in the large manufacturing sector are inaccessibility to external...
strategic information and inadequate training. Ability to obtain external information about business requires establishment of reliable and efficient network of operation.

It also entails hiring personnel with appropriate training and skills. Most of the manufacturing concerns in Kenya lacks this capacity, and therefore it's not a surprise that the study ranks this as a major bottleneck.

Inadequate training is a major constraint in adopting the above approaches. Given that strategic management accounting is a recent approach to management accounting, there are no professional institutions in Kenya that are offering specialised training in this area. Even our accounting professional exams have not examined the above area. Therefore there is desperate need for organisations to retrain their management accountants.

Lack of top management support and computer resources constraints were ranked the least. This can be explained by the fact that the top management is concerned with strategic issues for organisation and therefore are well placed to appreciate strategic management accounting development.
CHAPTER FIVE: CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summaries the findings of the study in relation to the objectives set out in chapter one. It also discusses the recommendations of the study, its limitations and suggested areas for further research.

Specifically, the objectives set out in this study were:

- To establish the type and extent to which strategic management accounting system is use in the Nairobi manufacturing sector.
- To identify the factors that influence companies to adopt strategic management accounting systems.
- To establish any benefits/problems associated with using strategic management accounting.

5.2 Summary of Findings

A sample of 50 companies was picked for this study. Out of which 39 questionnaires were returned dully filled for analysis. This implied that 11 questionnaire were not returned. The returned questionnaire were mostly from firms which were foreign owned. All of the interviewed companies were large with over 50 persons in their employment. The general observation was that
the respondents were mainly from mineral and industrial sector and they had average sales turnover ranging between Kshs. 500 million to 1 billion.

Most of the respondents indicated that they had adopted strategic management accounting systems. However, when it comes to the analysis of various techniques, the results showed that only three techniques, namely target costing, strategic cost analysis and relative market share analysis are commonly used. Balanced scorecard and value chain analysis were the least strategic techniques are in use among manufacturing industries in Nairobi.

Target costing is widely used because its easy to obtain strategic information for decision making from market research data as to compared to obtaining internal information from competitors. Balanced score card was the least used techniques probably because it's a recent approach in performance measurements.

The second objective dealt with factors that influence companies to adopt strategic management accounting approaches. It was found out that most firms have adopted to strategic management accounting systems because it enables the organisation to scan the business environment and assess competitors performance. This is critical to the organisations due to uncertainty in the business environment and intense competition association of the Kenyan economy. Few respondents indicated that the need for better customer
profitability analysis and needs to improve management control was critical in influencing to adopt the above approaches.

The third objective dealt with the benefits and problems associated with implementing strategic management accounting. As the results showed that the ability to assess business environment and competitors performance was the most important benefits the firms have derived from using strategic management accounting systems approach. Few firms indicated that the need for having better customer’s profitability analysis was important in influencing firms to change to strategic approach. The study further revealed that the main difficulty in implementing approach was in accessibility to external strategic information and inadequate training in strategic issues. The difficulties that respondents considered less important are lack of top most support and computer resources constraints.

5.3 Conclusion.

From the above findings, the following conclusion can be drawn. It appears that by principal most large manufacturing industries in Nairobi have embraced strategic management accounting systems. Target costing and strategic cost analysis are the most used techniques, whereas balanced score card and value chain analysis has not gained root in our manufacturing Industries.

The reasons behind adoption of strategic management accounting techniques are mainly due to need of assessing business environment. Inaccessibility to
external strategic information stands out as the major bottleneck in implementing strategic management accounting systems. In conclusion, it can be observed that strategic management accounting approaches is gaining rapid use among manufacturing industries. It is being used to develop superior strategies, which enable an organisation to gain sustainable competitive advantage. The major challenge to its application is the difficulty in obtaining external strategic information.

5.4 Recommendations.

The findings of this study indicate that large manufacturing Companies in Nairobi have adopted strategic management accounting approaches. However, some approaches such as balanced score card and value chain analysis are not fully embraced. It is recommended that management accountants need to be retrained so that they can appreciate and understand these modern approaches in management accounting.

Manufacturing industries should also develop internal capacity and network systems in order to be able to capture external strategic information for decision making. It is recommended that companies should establish divisions / units which specifically deal with collection and analysis of external strategic information.

Strategic management accounting approach is very key for an organisation to attain competitive edge. It is recommended that more organisations should be
encouraged to adopt these approaches since it’s the only way to survive in a competitive and liberalised market.

5.5 Limitations of the Study.

This study is limited to the following considerations:

a) There were problems with the level of awareness among the respondents. Some of the respondents did not seem to understand some strategic management accounting concepts. Very often these concepts had to be elaborated and explained. This meant that value was lost in the process. (Dilution of concepts)

b) There was no previous study done here in Kenya upon which the researcher could have compared his findings. The references and comparison made were from other countries. This implied that the study was more generalised.

c) The Questionnaire bias: The research relied on primary data through the administration of questionnaires. It is likely that respondents may have misunderstood some questions or gave biased opinions.

d) Time and resources constraint was major bottleneck. While a more comprehensive study was desirable, this was not possible given the time constraints.
5.6 *Areas for Further Research.*

a) This study concentrated to the application of strategic management accounting in the manufacturing sector. It is recommended that a study be done on strategic management accounting practices in other sectors of the economy, and also for specific organisation. This would provide a deep insight into the area of strategic management accounting.

b) Further, a similar research can be replicated some years to come in order to establish the stable of application of strategic management accounting in the manufacturing sector.
APPENDICES

APPENDIX 1
LIST OF MANUFACTURING COMPANIES INTERVIEWED.
(KENYA ASSOCIATION OF MANUFACTURERS DIRECTORY 1999)

1. All Pack Industries Ltd
2. Bayer E.A Ltd.
3. B. A.T (K) Ltd
4. B O C (K) Ltd
5. Berger Paints- Kenya
6. Cadbury (K) Ltd
7. Booth Manufacturing Ltd
8. BDF Industries Ltd
9. Cussons & Co Ltd
10. C.M.C Engineering Ltd
11. Carton Manufacturing Ltd
12. Colgate-Palmolive Ltd.
13. Cosmocare Industries Ltd
14. Coca Cola Africa Ltd
15. Crown Berger (K) Ltd
16. Cosmos Ltd
17. Dodhia Packaging Ltd
18. Dunlop (K) Ltd
19. East Africa Packaging Ltd
20. East Africa Breweries Ltd
21. Farmchem Ltd
22. East Africa Industries Ltd
23. Farmers Choice Ltd
24. Firestone (E.A) Ltd
25. Galaxy Paint & Coating Ltd
26. Haco Industries Ltd
27. Galsheet Kenya Ltd
28. General Motors (K) Ltd
29. Glaxo Wellcome (K) Ltd
30. General Plastics (K) Ltd
31. House of Manji Ltd
32. Henkel Kenya Ltd
33. International Distillers (K) Ltd
34. Johnson & Wax Co Ltd
35. Kuguru Food Complex Ltd
36. Kaluworks Ltd
37. Morris & Co Ltd
38. Mann Manufacturing Ltd
39. Nestle Foods (K) Ltd
40. Premier Food Ltd
41. Procter & Gamble (EA) Ltd
42. Unga Group Ltd
43. Razco Foods Ltd
44. Rafiki Millers Ltd
45. Reckitt & Colman Ltd
46. Tetra Pack Ltd
47. Smithkline Beecham Ltd
48. Sadolin Paints Ltd
49. Twiga Chemicals Ltd
50. Premier Flour Millers Ltd
I am a postgraduate student in the faculty of commerce, University of Nairobi. In partial fulfilment of the requirements of the Masters in Business of Administration (MBA), I am conducting a study entitled APPLICATION OF STRATEGIC MANAGEMENT ACCOUNTING IN MANUFACTURING FIRMS.

Your firm has been selected to form part of this study. To this end, I kindly request for your assistance in completing this questionnaire. Any additional information you might feel is necessary for this study is welcome.

The information and data required is needed for academic purposes only and will be treated in strict confidence. A copy of the research project will be made available to your organisation/ firm upon request.

Your co-operation will be highly appreciated.

Thank you.

Yours Sincerely,

Paul Muthuri Arithi
MBA Student

Munene M.M’Maithulia
Supervisor
APPENDIX III

QUESTIONNAIRE

PART A

1. Name of the Company

2. Year of establishment______________________________

3. What is the industry classification of your company
   (a) Agro-based industrial sector ( )
   (b) Mineral and industrial sector ( )
   (c) Engineering and construction sector ( )
   (d) Other , specify______________________________

4. Describe Ownership of your Company (Tick appropriately)
   (a) Local ( )
   (b) Foreign ( )
   (c) Joint Venture ( )
   (d) Others (specify)________________________________________

5. How many employees are employed by your Company – (Tick appropriately)
   a) Below 50 ( )
   b) Between 50 – 500 ( )
   c) Between 500 – 1000 ( )
   d) Over 1000 ( )

6. Describe your average annual turn over – (Tick as appropriate)
   a) Up to 500 Million ( )
   b) 500 Million to 1 Billion ( )
   c) Between 1 – 5 Billion ( )
   d) 10 Billion and above ( )
7. Describe the nature of your management accounting system (tick appropriately)
   (a) Computerised system
   (b) Manual system.

PART B

8. Does your Company use Strategic Management Accounting System.? Yes/No

(a) If No, kindly tick the following as appropriate
   - Not aware of this approach ( )
   - Not aware of the potential benefits from the approach ( )
   - Lack of qualified personnel/resources to handle ( )
   - Strategic management accounting systems are expensive to design and implement ( )
   - Not necessary to our Organisation ( )
   - Inadequate computer software ( )
   - Other reasons, specify ________________________________

(b) If yes, listed below are a number of techniques used in Strategic Management Accounting. Please indicate if you use any of these: - (Tick as appropriate)

<table>
<thead>
<tr>
<th>Techniques</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometime</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Target cost Strategic cost analysis</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Balanced score Card</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Competitors analysis</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>(d) Value chain analysis</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(e) Relative share analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(f) Value Activity analysis</td>
<td></td>
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<tr>
<td>(g) Any other (specify)</td>
<td></td>
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</tbody>
</table>
9. Indicate the extent of which information on the following is considered in your Management Accounting decision-making:

<table>
<thead>
<tr>
<th>Information</th>
<th>Never considered</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>General economic trends</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Technological Changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Market trends of your products</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Political risk analysis</td>
<td></td>
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<tr>
<td>Competitor’s analysis</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Value chain analysis</td>
<td></td>
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</tr>
</tbody>
</table>

10. Kindly rate the following reasons as to why your Company has adopted Strategic Management Accounting Systems

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Very Important</th>
<th>Important</th>
<th>Not Important</th>
<th>Irrelevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Better performance measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b) Facilitate decision making</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>c) Improved Management Control</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>d) Need to assess competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>performance</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>e) Better customer profitability</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>analysis</td>
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<td></td>
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<tr>
<td>f) Need to assess environment factors</td>
<td></td>
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</tbody>
</table>
11. Kindly rate the following advantages of using strategic management accounting as they apply to your organization.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Greater extent</th>
<th>Moderate extent</th>
<th>To a little extent</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better management control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More accurate customer profitability analysis</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Better performance measures</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Ability to assess competitor’s performance</td>
<td></td>
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<tr>
<td>Ability to scan the environment</td>
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</tbody>
</table>
12. Kindly rate the following difficulties of implementing strategic management accounting as they apply to your organisation.

<table>
<thead>
<tr>
<th>Difficulties</th>
<th>Greater extent</th>
<th>Moderate extent</th>
<th>To a little extent</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of computer resources.</td>
<td></td>
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<tr>
<td>Lack of trained personnel.</td>
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<tr>
<td>High cost of implementation.</td>
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<tr>
<td>Lack of top management support</td>
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<td></td>
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<tr>
<td>Abrupt change/resistant to change</td>
<td></td>
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<tr>
<td>In accessibility of external information</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>In adequate training/support</td>
<td></td>
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<tr>
<td>Other, specify</td>
<td></td>
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</tr>
</tbody>
</table>

**PART C**

13. Is there somebody responsible for strategic management accounting in your department?

14. How does your accounting system collect information on the various aspects of the business environment?
From your work experience, what can you say about the practice of strategic management accounting?

(a) In your organisation?


In Kenya?


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