

**PROCUREMENT PERFORMANCE MEASUREMENT SYSTEMS; A  
SURVEY OF LARGE MANUFACTURING COMPANIES IN  
NAIROBI**

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**BY**

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**A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF BUSINESS  
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## DECLARATION

This Research Project is my original work and has not been submitted for a degree in any other university.

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This research project has been submitted for examination with my approval as the University Supervisor

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## **DEDICATION**

I dedicate this project to my late grandfather, Mzee Rwoti Maranga for his visionary and unwavering support and encouragement to excel in my academics at all times.

## **ACKNOWLEDEMENTS**

The completion of this project is by no doubts a personal commitment and dedication to my personal academic ambition. However such a big dream could have consumed tens of years to accomplish without the support of several hands. On this note, it is only fair if I acknowledged support from: One, my supervisor, Mrs. Z. N. Kiruthu for unqualified support, encouragement and guidance throughout the study period. Special thanks goes to my wife Rehema Nyamoita and children, Oriki, Rwoti and Mong'ina who had to brave it all when I spent a good amount of family resources including time, in this academic endeavour. I cannot forget my colleagues in the office, Pastor Konje, Soita, Ombagi, Gaitho and Nyokwoyo for availing themselves to me when I needed support in materials, and proof reading of this project report. Much thanks also goes to my student, Paul Angila for sparing his holiday to assist me collect data from the field. Finally, I feel so much indebted to Kenya Association of Manufacturers and all manufacturing firms that cooperated with me in this study.

## **ABSTRACT**

The Procurement function can hardly be ignored in any manufacturing enterprise. Modern manufacturing thinking highly associate prudent procurement practices to profitability of the enterprise. This is because most financial commitments an organization makes pass through a procurement process. Available literature indicates that the efficiency and effectiveness of the procurement function is the least measured in many enterprises despite its contribution to the profitability of enterprises.

The aim of this study was to explore and establish if Kenyan manufacturing firms measure procurement performance, measurement systems they use, the performance dimensions that guide their measurement and the indicators they commonly use. A census of large manufacturing firms in Nairobi (68 firms) was undertaken. The collected data was analyzed using descriptive statistics and presented using tables charts and graphs. Findings of the study showed that 60% of Kenyan manufacturing firms measure the efficiency and effectiveness of their procurement process. As regards the performance measurement systems used in measuring procurement performance the study shows that 66.7% of large manufacturing firms in Nairobi use the non-traditional performance measurement systems in measuring their procurement performance. The study further revealed that these firms measure their procurement performance based on varied dimensions and indicators. Those who measure also showed that they enjoy various benefits, which their counterparts may not be enjoying. On the other hand the study found out that many firms encounter various challenges, which in a way hamper their effort to sustain continuous and objective procurement performance measurement. Such challenges include lack of professionalism in procurement, lack of defined measurement indicators and poor data management systems.

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## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background**

Many organizations spend millions of shillings on procurement, which refers to all of the activities required to get a product or service from a supplier to the user. The activities encompass the purchasing function, storing, transportation and management of the relationships between suppliers and internal customers (Van Weele, 1994).

Generally, procurement activities are increasingly receiving recognition due to their importance to organizations (Baily et al, 1994). According to these writers, purchasing and supply activities contribute in a significant way to the success or failure of an organization.

According to Carter and Price (1993), the procurement function not only sources but also manages stock, which represents a major part of an organization's working capital. In a research done in the USA, procured materials contribute to almost 60% of the annual expenditure in manufacturing firms (Evans, 1987). In Kenya, manufacturing firms spend an average of 56% of their annual sales turnover on purchases and material related costs, which indicates that procurement spends that much of an enterprise's revenue (Ondiek, 2000).

In addition, procurement is the contact function between external suppliers and the organization's needs. It is about connecting external sources to internal needs of an organization. In fact, procurement work to a large extent starts from one function in the organization and ends in another function within that organization or an external organization (Knudsen, 1999). This makes it a critical function in terms of relationship management both internally and externally.

Despite the contribution of procurement to manufacturing enterprises, literature shows that its performance (efficiency and effectiveness) is the least measured activity (Van Weele, 1994). However, according to Nelly (1998), the organization's efficiency and effectiveness are the two most fundamental dimensions of performance and hence the two must be measured. According to Nelly, efficiency refers to how economically the organization's resources are utilized whereas effectiveness refers to how accurately the organization's products or services satisfy the customer's needs. According to the Oxford dictionary of business (1996), efficiency measures

how successfully the inputs have been transformed into outputs while effectiveness measures how successfully the system achieves its desired outputs.

According to Knudsen (1999), even where procurement performance measurement is normally done, what is measured is highly dependent on the status and perceived importance the purchasing function has in the organization. One of the reasons attributed to this state of procurement affair is lack of a universally agreed criterion of procurement performance measurement and failure to devise the same. As a result of lack of this common approach, many organizations measure procurement performance differently using different systems, dimensions and indicators.

Over the years, organizations have measured their performance using financial based performance measurement systems and indicators. However, this approach is loosing popularity. According to Eccles (1991) and Wisner & Fawcett (1991) this has been due to environmental turbulence in terms of frequency and unpredictability of changes and on the other hand, the managerial complexity due to passage from strategies based on cost leadership to those based on differentiation/customization, a passage that increases competition between the firms and requires more complex organization. The change has led to the adoption of non-cost performance measures, which relate to physical measures pertinent to the characteristics of the product, the production technologies and the managerial techniques of the plant.

Some of the performance measurement systems (PMS) include: the Balanced Scorecard (Kaplan & Norton, 1996), the Performance Pyramid System (Lynch & Cross, 1995) and the Performance Prism (Neely & Adams, (2000).

The need for performance measurement has increased with changing business environments, leading to more rapid changes in business strategy (Nelly, 1991). In response to this, organizations have had to change their performance measurement systems, dimensions and indicators so as to align them with their strategy (Nelly, 2001).

## 1.2 Statement of the Problem

Procurement has been identified as a core function of any manufacturing enterprise. However, its performance measurement is said to be given less importance compared to the other management activities. Performance measures assists companies to evaluate, control and improve production processes and also to compare the performance of different organizations, plants, departments, teams and individuals as well as assess employees. However the only performance measurement that is carried out in procurement are largely cost based despite the fact that performance measures are required to correspond to environmental requirement, enterprise needs and strategies to meet those needs.

In Kenya, quite a few studies have been done in the area of procurement. The few that have been done have put a lot of emphasis on inventory models as a means of managing stocks. Examples include Mwangi (1983), who studied statistical forecasting as a method of management and control of inventory and Amoro (1991), who carried out a study on inventory Optimization. The aim of both studies was to provide an objective and efficient way of managing and controlling inventory.

Ondiek (2000), recommends that due to the huge sum of money companies spend on materials; a lot of emphasis or attention needs to be given to the materials management to enable companies achieve best optimal cost structures. However, the best way his recommendation can be implemented is by auditing the performance (efficiency and effectiveness) of procurement functions. A similar recommendation has been made by Makori (2002), who carried a study on strategic performance measurement within an operations strategy context. He recommends that organizations striving to succeed especially the small-scale firms have a leaf to borrow from the successful companies. However, there is little evidence of any study carried out to investigate performance measurement in the area of procurement, which can be borrowed by such firms.

It is against this background that the researcher is set to investigate the state of procurement performance measurement among the large manufacturing firms in Nairobi as a window to subsequent studies and replication of findings to other sectors.

Through this study the researcher sought to answer the following questions:

- i. Do the large manufacturing firms in Nairobi measure procurement performance?
- ii. Which performance measurement systems do they use- traditional or non-traditional?
- iii. What performance dimensions are considered when measuring purchasing and supply performance?
- iv. Which performance indicators are used to measure each dimension?

### **1.3 Objectives of the Study**

The objectives of the study were:

- i. To establish whether large manufacturing firms in Nairobi formally measure procurement performance;
- ii. To identify performance measurement systems used in measuring purchasing and supply performance in large manufacturing firms in Nairobi;
- iii. To identify performance dimensions emphasized by the firms when measuring procurement performance;
- iv. To identify indicators used to measure procurement performance dimensions; and
- v. To establish benefits and challenges of measuring procurement performance.

### **1.4 Significance of the study**

The findings of this study will provide managers and other practitioners with an insight into the benefits of using procurement performance measurement as a tool for effective management of the procurement function. It also provide an insight into the emerging procurement performance measurement systems, dimensions and indicators. It will contribute to the body of knowledge necessary to advance literature and instruction in the area of procurement management in Kenya. To the public sector of Kenya, this will create a greater benchmark opportunity for replication as a means of improving public procurement efficiency and effectiveness. The study will also create an opening into subsequent studies into this area, which is now regarded as the greatest source of value creation in both private and public enterprises.

## **1.5 Limitations of the study**

The study faced several limitations, which should be taken into account when reading this report:

- i. Time: time was the biggest constraint in that several respondents found it difficult to squeeze their busy schedules and respond to the questionnaire. As a result, some didn't respond at all whereas others delegated the duty to other officers some of whom might not have been adequately versed; and
- ii. Responses. Some respondents refused to respond to certain questions or even gave half responses. This was construed to mean that either they didn't have the relevant information or they thought it was privy to their company.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1. Introduction**

Procurement can be defined as all of the activities required in order to get a product or service from a supplier to the final destination. It encompasses the purchasing function, storing, transportation and management of the relationship between suppliers and internal customers (Van Weele, 1994). Although somewhat different, the term procurement and purchasing are interchangeably used in many business organizations (Dobler and Burt, 1996, 3, Corey, 1978). In this research report, the two are used interchangeably.

Generally, procurement and supply activities are increasingly receiving recognition for their importance to organizations. According to Baily et al (1994), there seems to be a general recognition that purchasing and supply activities contribute in a significant way to the success or failure of an organization.

Procurement's close link to profitability has been one of the major concerns that have led to the elevation of its status in business. According to the U.S. Bureau of Census (1981), the Procurement function plays an important role in most organizations since purchased parts, components, and supplies typically represent 40 to 60 percent of the sales value of its end products. This means that relatively small cost reductions gained in the purchase of materials or supplies can have a greater impact on profits than equal improvements in other cost-sales areas of the organization (Ballou, op. cit., 1992, p. 546). This has also been re-affirmed by studies done by PIMS Associates who found that purchasing effectiveness is one of the most critical factors in determining the profitability of business (Hillier, 1997).

With the raging wave of globalization and technology development, procurement has become a quite involving process since so many aspects have to be considered before a transaction is concluded. With time, it has grown from a clerical paperwork function concerned with transactional issues to a strategic unit of importance (Syson, 1992). This concurs with the arguments by Dobler and Burt (1996) who noted that procurement has progressed in two paradigm shifts i.e. from internal processes to value adding benefits and a shift from tactical to strategic focus.

According to (Gadde and Hakansson- quoted in Knudsen, 1999) procurement, as a strategic function play three roles: the development role, the rationalization role and the structural role.

The development role stresses the importance of using suppliers as an essential resource in the product development process. This is done by systematically matching the buyer's own need with the capabilities of the supplier's research and development capabilities. By so doing considerable synergy effects are reached.

The rationalization role encompasses all activities aimed at reducing costs. This is done by cutting prices through internal coordination, superior negotiation techniques, concentrating purchases to fewer suppliers leading to economy of scale, reducing stock levels and adapting to one's own needs to what suppliers can offer. The same is also achieved by changing internal customer needs, improving flows between suppliers and internal customers or finding better or less expensive suppliers.

The structural role emphasizes that the decisions made in the purchasing work today affect the structure of possible suppliers available in the future.

Whether strategic or clerical, the position of procurement in an organization depends on quite a number of factors. Van Weele (1994) lists some of these factors as characteristics of the product; strategic importance of the purchase function; sum of money involved in the purchase; characteristics of the purchase market; degree of risk related to the purchase; degree to which the purchase affects existing routines in the organization; role of the purchasing department in the organization.

## **2.2 The Concept of Performance Management**

According to Latham, (1984), performance management is defined as the cyclical, year-round process in which managers and employees work together on setting expectations. It includes activities to ensure that goals are consistently being met in an effective and efficient manner (McNamara, 2000). According to McNamara, Performance management can focus on

performance of the organization, a department, processes to build a product or service, employees, etc.

MacNamara notes that because performance management strives to optimize results and alignment of all subsystems to achieve the overall results of the organization, any focus of performance management within the organization (whether on department, process, employees, etc.) should ultimately affect overall organizational performance management.

Achieving the overall organization goals requires several ongoing activities, including identification and prioritization of desired results, establishing means to measure progress toward those results, setting standards for assessing how well results were achieved, tracking and measuring progress toward results, exchanging ongoing feedback among those participants working to achieve results, periodically reviewing progress, reinforcing activities that achieve results and intervening to improve progress where needed. This requires an elaborate performance measurement using an appropriate performance measurement system. The overall goal of performance measurement being to ensure that the organization and all of its subsystems (processes, departments, teams, employees, etc.) are working together in an optimum fashion to achieve the results desired by the organization.

### **2.3 Performance measurement**

According to Nelly (1998), performance measurement is the process of quantifying the efficiency and effectiveness of past action. It is the gathering of information about the work effectiveness and productivity of individuals, groups, and larger Organizational units (Larsen & Callahan, 1990). It involves systematically collecting and strategically using information, on an ongoing basis, in an intra- and inter-organizational fashion, and for a variety of internal and external purposes (Dusenbury, 2000).

Performance measurement represents a process where the focus is on the internal process of quantifying the effectiveness and the efficiency of action with a set of metrics (Neely, Gregory and Platts, 1995). It represents management and control systems that produce information to be shared with internal and external users. Furthermore, as it encompasses all aspects of the



business management cycle, it constitutes a process for developing and deploying performance direction (Nanni, Dixon and Vollmann 1992).

Performance measurement is traditionally viewed as an element of the planning and control cycle that captures performance data, enables control feedback, influences work behavior (Flamholtz, Das and Tsui 1985) and monitors strategy implementation (Simons 1990).

From the foregoing it is apparent that performance measurement is concerned with an organization/ department's efficiency and effectiveness. According to Nelly (1998) an organization's efficiency and effectiveness are two most fundamental dimensions of performance and hence those two must be measured.

Efficiency refers to how economically the organization's resources are utilized whereas effectiveness refers to how accurately the organization's products or services satisfy the customer's needs. Efficiency measures how successfully the inputs have been transformed into outputs whereas Effectiveness measures how successfully the system achieves its desired outputs (Oxford Dictionary of Business, 1996).

#### **2.4 Importance of performance measurement**

Performance measurement plays a key role in the development of strategic plans and evaluating the achievement of organizational objectives (Ittner and Larcker 1998) as well as acting as a signaling and learning device (Simons 1990).

More than just being a diagnostic system, performance measurement also represents an interactive device (Simons 1990). It contributes to strategy formulation and implementation by revealing the links between goals, strategy, lag and lead indicators (Kaplan and Norton 1996) and subsequently communicates and operationalizes strategic priorities (Nanni et al. 1992).

The goal of making measurements is to permit managers to see their company more clearly - from many perspectives - and hence to make wiser long-term decisions. According to the Baldrige Award scheme (Baldrige Criteria, 1997), Modern businesses depend upon measurement and analysis of performance for it supports a variety of company purposes, such as planning,

reviewing company performance, improving operations, and comparing company performance with competitors or with 'best practices' benchmarks.

Performance measures assists companies to evaluate, control and improve production processes. They are also used to compare the performance of different organizations, plants, departments, teams and individuals and also assess employees (Heim and Compton, 1992).

According to the Foundation of Manufacturing Committee of the National Academy of Engineering, world class organizations use performance metrics to define and align performance expectations for the organization (quoted in Heim and Compton, 1992 pp.6).

## **2.5 Performance measurement systems**

According to Ljungberg (1994) a measurement system is a set of related measures described by rules and procedures for capture, compilation and combination of data- that in combination reflect key performances and characteristics of a selected process effectively enough to admit intelligent analysis leading to action if needed.

On his part Simons, (2000) defines Performance management systems as “the formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities”. These systems focus on conveying financial and non-financial information that influence decision-making and managerial action. The recording, analyzing, and distributing of this information is embedded in the rhythm of the organization and is often based on predetermined practices at preset times in the business cycle.

A performance measurement system enables informed decisions to be made and actions to be taken because it quantifies the efficiency and effectiveness of past actions through the acquisition, collation, sorting, analysis, interpretation and dissemination of appropriate data (Nelly, 1998).

A performance measurement system operates with exhaustive and carefully selected performance indicators. Performance indicators specify the types of evidence, qualitative and quantitative, used to assess performance and results. These will include indicators of productivity, effectiveness, quality, timeliness, and responsiveness (Wholey, 1983).

## **2.6 Trends in performance measurement Systems**

Performance measurement is not a new phenomenon. In fact throughout history, performance measures have been used to assess the success of organizations. For instance, the modern accounting framework dates back to the Middle Ages and since that time assessment of performance has predominantly been based on financial criteria (Bruns, 1998). Double entry accounting systems were developed to avoid disputes and settle transactions between traders (Johnson, 1983). By the start of the twentieth century, the nature of organizations had evolved and ownership and management were increasingly separated. As a result, measures of return on Investment were applied so that owners could monitor the performance that managers were achieving (Johnson, 1983). Since that time, the vast majority of performance measures used have been financial measures of this type based on financial data like return on investment, Return on sales, price variances, and sales per employee and profit per unit of production. Of these measures, productivity has been considered the primary indicator of performance, (Teague and Eilon, 1973).

By the 1980s, there was a growing realization that the traditional performance measures (measures based on accounting parameters) were no longer sufficient to manage organizations competing in modern markets (Johnson and Kaplan, 1987).

### **2.6.1 Limitations of traditional performance measures**

With more demanding customers and more competitive markets came the need for greater responsiveness and external focus for activities, hence, the need for more responsive measures. Many authors recognize that, while traditional financial accounting systems indicate the performance that results from the activities of an organization; they provide little indication of how that performance is achieved or how it can be improved. The deficiencies in traditional financial performance measures, and their inadequacies given the changes to the competitive challenges facing companies, have been widely documented. Authors suggest that traditional financial performance measures are based on traditional management accounting systems that were initially developed for the purpose of attributing the total costs of operating textile mills, railroads, steel mills, and to specific products, departments, and activities (Hayes et al, 1988 pp 35).

Traditional performance measurement focuses more on cost. However, cost is only one and no longer the most important factor for competing in most markets. To be competitive one has to concentrate on quality, reliability, short lead times, customer service, rapid product introduction, flexible capacity and efficient capital deployment rather than focus on cost alone (Skinner (1986).

Financial performance measures emphasize on profits as a measure of performance. However, when a company is making profit this does not necessarily imply that its operations, management and control systems are efficient. Profit can only reveal that there is a problem but provides little about the nature of the problem and reasons for the problem, nor the specific areas that require improvement (Globerson, 1985). They are historical in nature. Financial reports are usually closed every month that operators and supervisors find it hard using this lagging metrics for they consider this reports too old for operational performance assessment (Dixon et al., 1990); preparation of financial reports requires an extensive amount of data, which is usually expensive to obtain; They Provide little indication of future performance; they encourage short termism (Hayes and Abernathy, 1980; Kaplan, 1986); they are internally rather than externally focused, with little regard for competitors or customers (Kaplan and Norton, 1992; Neely et at, 1995); they irrelevant to practice. Traditional performance measures try to quantify performance and other improvement efforts in financial terms. Yet most efforts are difficult to quantify in money terms e.g. lead time reduction, adherence to delivery schedule, customer satisfaction and product quality). In addition, operators find typical financial reports difficult to understand which leads to frustration and dissatisfaction. As a result, traditional performance is often ignored in practice at factory shop floor level (Ghalayini et al, 1996, pp 66); they lack strategic focus. Traditional performance measures have not incorporated strategy. Rather their objectives have been to minimize costs, increase labour efficiency and machine utilization (Skinner, 1974); they often inhibit innovation (Richardson and Gordon, 1980).

Traditional/financial measures are inflexible in that they have a predetermined format, which is used across all departments while even departments within the same organization may be having different characteristics and priorities.

Traditional performance measures are no longer useful since in order to meet customer requirements of higher quality products, shorter lead time and lower cost management have given shop floor operators more responsibility and authority in their work (Maskell, 1992).

Atkinson et al. (1997,25) conclude, "Performance measurement systems primarily based on financial performance measures lack the focus and robustness needed for internal management and control.

What emerges from the analyses given by various scholars as explained above is that the information provided by such cost based systems is insufficient for the effective management of businesses in rapidly changing and highly competitive markets. Hence the systems fall short of attributes that enable it reflect the position of an organizations performance.

The work of Kaplan and Norton (1992) and Keegan et al, (1989) emphasizes the fact that the set of measures used by an organization has to provide a "balanced" picture of the business. The set of measures should reflect financial and non-financial measures; internal and external measures; and efficiency and effectiveness measures. This requires an integrated performance measurement system. An integrated performance measurement system is defined as the process of acquiring cost and other performance knowledge and employing it operationally at every step in the strategic management cycle (Nanni et al. 1992).

According to Globerson, (1985) a performance measurement system of an organization should include: a set of well defined and measurable criteria; standards of performance for each criteria, routines to measure each criteria; procedures to compare actual performance to standards; and procedures for dealing with discrepancies between actual and desired performance. Goals established by the system should be valid indicators of performance (Latham, 1984). The measurement system should meet reasonable tests of reliability and timeliness and the data generated should be sufficiently free from bias and other significant errors and needs to be cost effective. The management and staff time required to collect and analyze the information should not be too excessive and the system used should not impose burdens on reporting entities

(Wholey, 1999). In addition, measures and the measurement systems must reflect the context to which they are applied (Neely, 1999).

These shortcomings in traditional measures have resulted in a crisis in performance measurement and a subsequent revolution to overhaul existing systems to ensure that they reflect organizations' competitive circumstances (Neely, 1999). These are integrated performance measurement systems developed in order to give an overall view of companies' performance and to guard against sub-optimization. These integrated systems are appropriate for a world class-manufacturing firm in many respects (Ghalayani and Noble, 1996). Characteristics of these new systems are that they embody: measures related to manufacturing strategy; primarily non-financial measures provide managers, supervisors and operators with information required for daily decision making, are simple measures that shop floor operators can easily use and understand them, they can foster improvement rather than just monitor it, they lead to employee satisfaction and that they are measures that change as required by a dynamic marketplace (Ghalayani and Noble, 1996, pp67). Among this new performance measurement systems are:

## **2.7. The non traditional performance measurement systems**

With the realization of weaknesses in the traditional performance measures, a number of non-traditional performance systems have been designed. These include:

### **2.7.1 The Balanced Scorecard**

According to Kaplan and Norton, (1992), this is a performance measurement system that attempts to provide answers to four basic questions: How do customers see us? What must we excel at? Can we continue to improve and add value; and how do we look at shareholders? By each of the above perspectives goals are set by the managers. Similarly specific measures are specified in order to achieve each goal. This measurement system has two main strengths: one, it summarizes in one management report, many seemingly disparate elements of a company's competitive agenda, two, it prevents sub-optimization by forcing senior managers to consider all operational measures at the same time (Newing, 1995). Acting as a generic multi-dimensional instrument, the balanced scorecard aims to extend the scope of management information from financial measures to include other non-financial aspects linked to business unit strategy. Furthermore, these

systems measure the achievement of the components of the strategic plan and act as a strategic management system (Kaplan and Norton, 2001). Data from the USA research company Gartner group, for example, suggest that 40 percent of the largest businesses in the USA had adopted the balanced scorecard by the end of 2000. Data collected by the Balanced Scorecard Collaborative put the figure even higher; suggesting that over 50 percent of surveyed firms worldwide had adopted the balanced scorecard by the middle of 2001, with a further 25 percent considering it, (Downing, 2001). However, the literature reports several weaknesses in the balanced scorecard, including the absence of procedures for mapping means-end relationship, neglected links with reward structure, the establishment of information systems and feedback loops that are taken for granted, the absence of target-setting directives (Otley 1999), the time dimension, the relationships between measures, and the interdependencies of the four dimensions (Norreklit, 2000). Moreover, judging this approach incomplete because it fails to highlight contributions from employees, suppliers and the community. Atkinson et al. (1997) propose a stakeholder approach whereby the primary and secondary objectives of external stakeholders (customers, owners, community) and process stakeholders (employees, suppliers) are the focus of the performance measurement system so as to give it an integrated performance measurement approach.

### **2.7.2 The performance pyramid**

According to Lynch and Cross (1991) the performance pyramid is a performance measurement system whose main objective is to link strategy and operations by translating strategic objectives from the top down and measures from the bottom up. With this system objectives and measures flow among four successive levels: corporate level, business units, business operating systems and departments and work centres. To summarize, these four models all use financial and non-financial measures for strategy formulation and implementation.

### **2.7.3 The Strategic Measurement Analysis Reporting Technique (SMART)**

The Strategic Measurement Analysis and Reporting Technique (SMART) was developed by Wang Laboratories Inc. as a result of dissatisfaction with the traditional performance

measures such as utilization, efficiency, productivity and other financial variances (Cross and Lynch, 1989). The objective of the system was to devise a management control system with performance indicators designed to define and sustain success.

#### **2.7.4 The Performance Measurement Questionnaire (PMQ)**

The PMQ was developed to help managers identify the improvement needs of their organization, to determine the extent to which the existing performance measures support improvements and to establish an agenda for performance measurement improvements (Dixon et al, 1990). This measurement system consists of four parts. The first provides general data used to classify respondents. Part two assess the company's competitive priorities and performance measurement systems (improvement areas), part three focuses on performance factors (performance measures). The final part asks the respondents to provide performance measures that best evaluate their own performance and any other general comments.

#### **2.7.5 The Performance Prism**

According to Neely A. & Adams C. (2000), this is a performance measurement system concerned with measurement of the processes required to deliver objectives and the capabilities required to support and enhance these processes. It is a performance management tool that adopts a stakeholder centric view of performance measurement. It is meant to reflect the growing importance of satisfying stakeholder requirements. It emphasizes that consideration must be given to an organization's major stakeholder groups such as shareholders, investors, customers, employees and suppliers, all of which are incorporated into the balanced scorecard, or variants of it. In addition to these stakeholders, the Prism also considers a group of stakeholders of growing power and significance in the current business environment, regulators and pressure groups. It also emphasizes that having identified the key stakeholders of the organization and defined their requirements, it becomes necessary to consider whether the organization has the strategies in place to deliver stakeholder satisfaction. The need to implement measures that reflect and communicate an organization's strategies has been a consistent message in much of the recent literature on performance measurement. There is recognition of the



need to communicate strategy, check that it is achieved and challenge whether it is correct (Neely, 1998).

## **2.8 Procurement performance measurement**

According to the Council of Logistics Management (1995), Procurement has been one function whose performance is crucial in the supply chain. The council also recognizes performance measurement as one of the four key competences in the World class Logistics Model. Others are: positioning, integration and agility. According to findings of a study done by the same council, most managers of purchasing departments have no or little information about their own department's performance.

For a business or government to be successful, all its individual parts (departments, divisions or sections) must be successful. It is impossible for any manufacturing or business organization to achieve full potential without a successful procurement activity. In the long run, the success of a business enterprise or government depends on every bit as much on the purchasing executive as it does on the executives who administer the other functions of the business (Dobler et al, 1990).

Scheuing (1989) likens purchasing to management in general. That it consists of the activities of: planning, decision- making, control and feedback. Scheuing further argues that purchasing activities form a sequence that occurs in repetitive and cyclical manner. He names those activities as analysis, planning, implementation and control. Just like in the Demming's Quality cycle, all these activities have some kind of control or feedback information, so that an analysis of previous decisions can be made and in the end, better decisions can be taken (Knudsen 1999). By measuring the performance of procurement, one can therefore be able to improve the conditions for better decision-making and most certainly, make better decisions.

Procurement performance measurement could be having various definitions but the definition given by Lysons is quite satisfying. Lysons (1996, pp.395), defines it as: the qualitative or quantitative assessment of the degree to which the purchasing function and those employed therein achieve the general or specific objectives assigned to them.

## **2.9 Importance of measuring purchasing performance**

Purchasing performance and productivity measurement in the supply chain have not been widely practiced in some organizations and purchasing Productivity, for a long time, has been ignored (Msimangira 2001). In addition, Msimangira says that the drive for economic recovery and restructuring of the organizations needs the purchasing function to be streamlined in order to improve purchasing productivity. Msimangira suggests that Purchasing productivity must be measured to avoid unwise purchasing and misuse of an organization's funds.

Appraisal and control of purchasing and supply performance has always been important in a well managed firm, but in today's environment it is more important than ever. Such market factors as increasing stringent global competition, the extreme emphasis on quality, and the push to bring products to the market faster all exert legitimate pressure on a firm's purchasing and supply operation (Dobler and Burt, 1996).

Performance measurement improves buyer supplier relationships (Knudesen, 1999, pp41). Knudsen argues that procurement is very much about having the right kind of relations with suppliers. He further says that it is not sufficient enough to choose a supplier just because he/she has the right kind of product or service to offer. The researcher further argues that the relation between the customer and the supplier is as important as the product or service itself. So therefore the buyer and supplier must work together in a closer collaborative mode, sometimes in alliance relationships- and this produces an increasing interdependence between the firms. This coupled with the drive for continuous improvement mandates the development of effective performance measures that can be used as a basis for proactive assessment and control of operations.

Measuring organizational performance improves stock prices (Gates, 1999). The same view is shared by Lingle and Schiemann (1996), who adds that companies that are managed using integrated balanced performance measurement systems outperform and have superior stock prices than those that are not.

## 2.10 Procurement Performance Measurement Challenges

Despite the importance of procurement to firms, there is no adequate procurement performance measurement approach (Bruzelius & Skarvad, 1989, quoted in Knudsen, 1999). Russill (1997), shares the same sentiments. He says, "The problem with the whole topic of measuring procurement effectiveness is that the issue is muddled." Commenting on the same, Syson (1992) also states that, "One of the problems that arise in respect of the purchasing function is that there is no common opinion about what should be measured. To add on the same, Murphy et al, (1996) argues that the purchasing department is one of the most difficult functional areas to evaluate.

What emerges from these arguments is that it is difficult to find a generally applicable approach to measure procurement performance. There are of course single measures, but they only cover fragments or pieces of the total procurement process and this is a great obstacle when it comes to improving the purchasing function (Chao et al, 1993).

According to Van Weele (1994), the purchasing function presents four major problems that make it difficult to measure its performance:

- i. Lack of definitions. He says, concepts like: purchasing performance, purchasing effectiveness, purchasing efficiency are not defined;
- ii. Lack of formal objectives and performance standards against which measurement can be done;
- iii. The problem of acute measurement, purchasing is not an isolated function and thus the direct input-output relationships are difficult to identify; and
- iv. Differences in scope of purchasing from organization to organization.

Commenting on the above issues raised by Van Weele, Knudsen (1999), summarizes the whole process about procurement as Confusion. He further argues that many concepts in the function are still unclear and many people still show an inability to grasp the width of the procurement function in the supply chain. According to Knudsen, many people see procurement as an administrative department that only causes costs and adds no value. He concludes that the

inability to measure the procurement department's performance can lead to a simple price cutting strategy, which in the long run no one can benefit anything from. (Pp.7).

Another challenge of procurement measurement is what to measure. Literature gives us various lists of what to measure but few of them tell us when to use which measure. For instance, Monczeka and Carter (1979), identify more than 200 measures from a study of 18 American companies. However, according to Syson (1995), measuring performance using too many measures is also a problem. He says, "Central to the whole question of the role and future of purchasing is measurement and here it is possible to argue, "in many companies we suffer not from too few measurements but from too many, and those that we have are frequently of the wrong sort". This issue is further compounded by comments from Van Weele (1994), that what is measured in procurement depends on the status and perceived importance of the purchasing department as in the organization. Which therefore means that if the status is lowly and the perception is poor then there is either little performance measurement or measured based on shallow measures.

### **2.11 Procurement performance measures and systems**

Systems and measures used to measure purchasing performance needs to be carefully selected and applied (Heinritz et al, (1991). According to the researchers, it is a fallacy trying to oversimplify purchasing performance to some set standard of performance. In addition the researchers argue that in measuring purchasing performance, there is a dual job to be done- efficiency in departmental administration and efficiency in procurement. They further stress that most satisfactory measures are those in which the two phases are separately considered (efficiency and effectiveness). There is a vast difference between measuring efficiency and measuring effectiveness. According to Osborne and Gaebler, (1992), Efficiency is a measure of how much each unit of output costs whereas Effectiveness is a measure of the quality of that output. Van weele (1994) agrees with Heinritz et al, (1991) that if procurement measures are to be any meaningful, they should border on procurement effectiveness and efficiency. He defines procurement effectiveness as the extent to which, by choosing a certain course of action, a previously established goal or standard is being met. Thus it refers to the relationship between actual and planned performance. He also defines procurement efficiency as the relationship

between planned and actual sacrifices made in order to be able to realize a goal previously agreed upon.

The performance measurement report on efficiency in purchasing and supply activities can be used for control to improve purchasing productivity and reduce costs in an organisation. This is in agreement with the well-rehearsed adages such as "what gets measured gets done" and "you get what you measure". For this to be achieved therefore there must be put in place an appropriate performance measurement system which will ensure that actions are aligned to strategies and objectives (Lynch and Cross, 1991). Many organizations have spent considerable time and resources implementing balanced performance measurement systems.

So therefore, what is exactly measured in procurement?

As already highlighted above there is no common approach as to how and what is measured in procurement and that the whole issue is muddled. There are of course single measurements, but they only cover fragments or pieces of the total procurement process and this is a great obstacle when it comes to improving the purchasing function (Chao et al, 1993).

Literature points out that measuring procurement performance has largely been cost based, hence applying traditional systems. For instance Lysons (1996), details methods of evaluating purchasing performance as: accounting approaches, comparative approaches, the purchasing audit management approach and the management by objectives approach (pp. 393- 408). Further examination of Lysons text reveals that, he has given more weight on the accounting approach. Further analysis of his thought reveals that he has limited his work to the purchasing and not the entire procurement function. This provides with little connectivity to the organization as a whole. Leonard (1986), on his part has listed more than 38 quantifiable measures normally used to assess procurement performance. An examination of these measures also reveals that they are all financial based.

Heinritz et al, (1991), discusses how to measure purchasing performance with a focus on efficiency and effectiveness. In addition they argue that efficiency is measured against budgeted

cost and defend this position by saying, "the end result of purchasing is product cost, and the measurement of purchasing performance can logically be based on that consideration (pp. 403). As regards effectiveness of purchasing, Heinritz et al, (1991), consider the performance indicators as: cost savings, inventory performance, cost avoidance, supplier quality, supplier delivery management, and transportation management among others. All of these parameters are measured in terms of their contribution to purchasing cost or cost avoidance. This adds to the trend that the purchasing activity is traditionally measured.

Indeed, even in the literature surveyed there is no commonly agreed position on what should actually be measured in procurement. For instance, Axelsson & Hellman (1991, quoted in Knudsen, 1999), detail six areas that should be measured. These are: suppliers, price issues, delivery service, stock levels, cost savings, operational efficiency. All these are also measured in terms of their contribution to their cost or profit of an enterprise.

According to the Center for advanced Purchasing (Dobler and Burt, 1996, 690), the following are the ten most commonly used procurement performance measures:

- i. Material cost reductions produced by joint buyers-supplier efforts, categorized by material and supplier;
- ii. Percentage of major suppliers that deliver on time, noted by material;
- iii. Percentage of orders received within a specified number of days of the due date, noted by material;
- iv. Internal customer satisfaction;
- v. Material cost savings generated from centralized and consolidated by activity;
- vi. Material quality defect rate categorized by material and supplier;
- vii. Documented improvements attributed to strategic supplier partnerships;
- viii. Average supplier lead-time by major materials;
- ix. Percentage of major suppliers certified to the buying firms standards; and
- x. Number of long term contracts in place along with dollar volumes.

However, according to Dobler and Burt (1996), there are no universally accepted procurement performance measures. Each firm selects those that it believes are most useful for its assessment

purposes, and develops its own managerial appraisal and control program. So the above list is neither a panacea or exhaustive.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Overview**

This chapter presents the methodology used in the study to obtain data, which was used to analyze the performance measurement dimensions, indicators, benefits and challenges of procurement performance measurement. It is divided into the following sections: research design, population, data collection tools, presentation and analysis.

### **3.2 Population**

The target population for this study was large manufacturing firms in Nairobi. The researcher considered large manufacturing firms because of their level of procurement activity and the amount of investment in purchases and inventory. Determination of the size of the firm was based on annual sales turnover. Other researchers like Aosa (1992), Kukalis (1991), Wordburn (1984), Steel and Age (1984) have used this criterion. Kukalis, Wordburn, Steel and Age point out that compared to other criteria, sales turnover is a very strong criteria, making it the most popularly used criterion in research. According to Aosa, a company with a sales turnover of Kshs. 3m is considered large. However, for this study the researcher consider the Kenya Association of Manufacturers (K.A.M.) 's definition. According to K.A.M, a firm is considered to be large if it has an annual sales turnover of Kshs 460 million and above. The researcher considered manufacturing firms, with over, Kshs. 460 million annual sales turnovers from a list provided by the Kenya Association of Manufacturers (KAM).

According to the KAM criterion and registration list, there are 68 manufacturing firms in Nairobi, which qualify to be large. The researcher sought responses from all the 68 firms. Nairobi was chosen as the area to be covered by the study because of conveniences in terms of accessibility, time and financial resources available to the researcher. Also, according to KAM's directory of Kenyan firms, most large manufacturing firms are in Nairobi.

### **3.3 Data collection**

The data was collected through a semi-structured questionnaire having closed and open ended questions. The closed-ended questions enabled the researcher to collect quantitative data for statistical analysis. The open-ended questions on the other hand elicited qualitative responses about the respondents' views on the issues under study in the organization. The questionnaire



was validated in order to help the researcher identify any ambiguous and unclear questions to the respondents. The questionnaires were dropped to the respondents and collected later. The study targeted Purchasing and supply managers or whoever was directly responsible for procurement management as the respondents.

### **3.4 Data analysis**

The data collected were edited for accuracy, uniformity, consistency and completeness and then arranged to enable coding and tabulation before final analysis. The data was then coded and cross-tabulated to enable the responses to be statistically analyzed using the Ms Excel software program. Data was analyzed using descriptive statistical method and the results presented in both tabular and graphical format.

## CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

### 4.1 Overview

A structured questionnaire was sent out to 68 companies. Out of the 68, 3 companies had merged their operations and 2 had moved out of Nairobi leaving only 66 companies to interview. Out of the 66, companies 40 actually responded. This gives a response rate of 60.6%. The respondents were supposed to be procurement or purchasing managers. Here below is a report of the responses they gave in each question:

### 4.2 Company profiles

Data was collected from companies with a sales turnover of over Kshs. 460 million. The composition of those firms in terms of their ownership was as follows:

**Table 1. Company ownership**

<b>COMPANY OWNERSHIP</b>	<b>NUMBER OF RESPONSES</b>	<b>PERCENTAGE</b>
Fully local	18	45%
Fully foreign	5	12.5%
More than 50% foreign	7	17.5%
More than 50% local	10	25%
<b>Total interviewed</b>	<b>40</b>	<b>100</b>

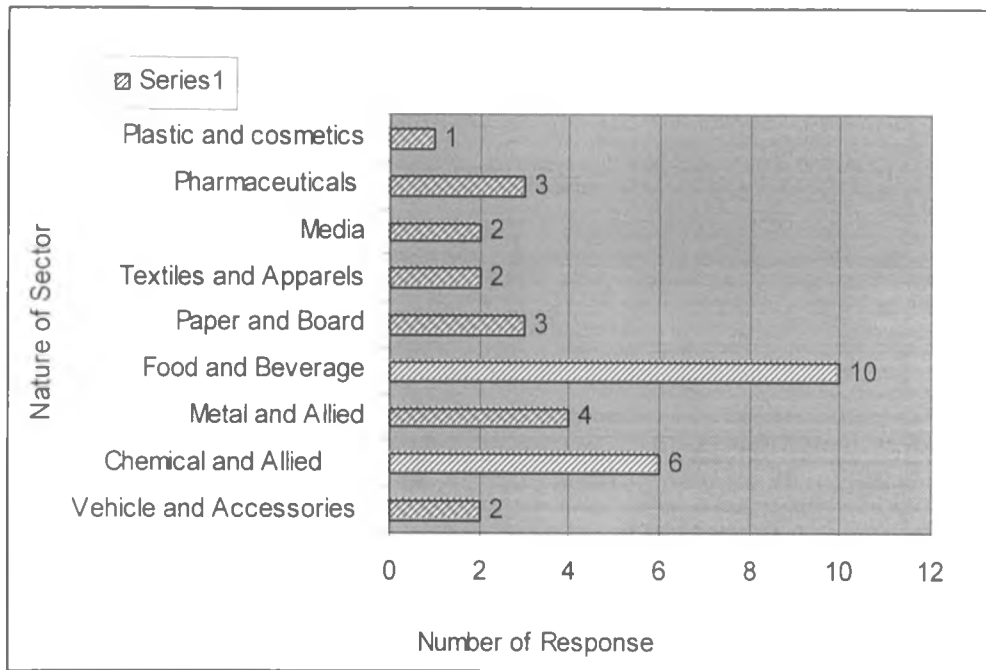
**Data Source: Questionnaires**

From the table above it is evident that 45% of the interviewed firms were fully local, While the others were: 12.5% fully foreign, 17.5% were more than 50% foreign and 25% were more than 50% locally owned.

### 4.3 Nature of sectors represented

Questionnaires were sent to companies in various sectors. Figure1 below gives a summary of those sectors and representation of how they responded.

**Figure 1. Nature of sector**



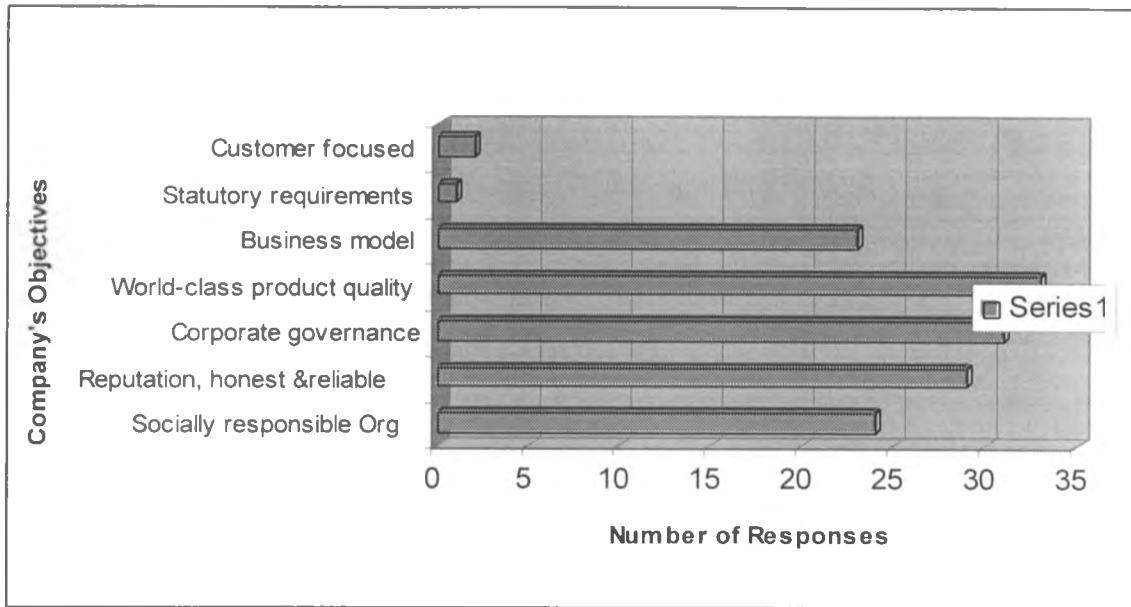
**Data Source: Questionnaire**

Majority responses were received from the food and beverage sector, followed by chemical and allied sector whereas plastics and cosmetics gave the list responses. This can be attributed to their relatively small number that was involved in the study.

#### **4.4 Company objectives**

Each company interviewed was required to state some of its highly cherished company objectives. Majority companies appeared to share objectives. For instance, figure 3, given below shows that many of the companies have their main objectives as being: maintaining world class, product quality; exhibiting the highest level of corporate governance; maintaining a reputation for honest and reliability and being socially responsible among others. Figure 3 below gives a summary of the objectives that shared among the companies interviewed.

**Figure 2. Number of Responses**



**Data Source: Questionnaire**

From the figure given above, majority companies interviewed indicated that it was their cooperate objective to: achieve world class standards in product quality; to maintain sound principles of corporate governance, critical to obtaining and relating the trust of share owners, employees and other stakeholders and to maintain a reputation for honest and reliable business conduct.

#### **4.5 Procurement objectives**

From the responses given, the following procurement objectives were found to be more common among the respondents and are arranged in order of frequency from the highest to the lowest.

- i. To supply the company with a steady flow of materials to meet its operational needs;
- ii. To obtain materials and other supplies at the right time;
- iii. To maintain a sound relationship with both suppliers and all customers, be they internal or external;
- iv. To obtain the maximum value of money spent in purchases;
- v. To manage the procurement function at the minimum cost;
- vi. To design and maintain effective procurement processes that will support efforts to achieve company goals and objectives;

- vii. Embrace a strategic approach to procurement in line with company strategy;
- viii. To keep inventory investment and inventory losses at a practical minimum and
- ix. To foster honesty, fair, and legal trade practices with our suppliers.

The table below shows all the objectives given and how they ranked.

**Table 2. The companies' procurement objectives**

<b>COMPANIES' PROCUREMENT OBJECTIVES</b>	<b>Responses</b>
To supply the company with a steady flow of materials to meet its operational needs.	36
To obtain materials and other supplies at the right time.	34
To maintain a sound relationship with both suppliers and all customers, be they internal or external.	34
To obtain the maximum value of money spent in purchases.	34
To manage the procurement function at the minimum cost.	32
To design and maintain effective procurement processes that will support efforts to achieve company goals and objectives.	32
Embrace a strategic approach to procurement in line with company strategy.	32
To keep inventory investment and inventory losses at a practical minimum.	32
To foster honesty, fair, and legal trade practices with our suppliers.	28
Embrace a win -win relationship with the customers as partners in Business.	12
To minimize wastage in the supply chain as much as possible so as remain efficient and effective in the supply chain activities in order to enhance the competitive advantages.	8
To re-engineer the supply chain so as to create more value. This comes after optimizing it.	8
To check materials in accordance with ISO requirement	6
To check if the supplier have been used in the past	4

**Data Source: Questionnaire**

#### 4.6 Approximate sales Turnover for the companies surveyed

Majority of the companies interviewed considered keeping privy to their sales turnover. The companies approached for data were those with an annual sales turnover of over Kshs. 460 m. (2003/2004- KAM statistics). However, based on the 2003/2004 statistics, 31.25% of the interviewed firms showed that they had an annual sales turnover of below Kshs. 460 million while only 12.5% of them had above Kshs. 2960million. Table 5 below indicates the sales turnovers and the number of companies in that category of sales turnover in the period between 1999 and 2004.

**Table 3. An approximate sales Turnover for the companies surveyed**

Kshs. Millions?	1999/00	00/2001	2001/2002	2002/2003	2003/2004
0- 459.99	8	5	7	5	5
460-960	3	3	2	2	2
960-1460	4	2	3	2	3
1460-1960	2	3	-	-	3
1960-2460	3	4	4	5	1
2460-2960	3	4	4	7	2
Above 2960	1	-	-	-	-

**Data Source: Questionnaire**

#### 4.7 Profit levels

For the year 2003/2004, 33.33% of the respondents had profit levels of less than kshs.200m, followed by those with profits of between kshs. 401-600m (16.67%) and above kshs. 1billion (16.67%). More details on this are given in table 6 below.

**Table 4. Profit levels for the companies interviewed in specified years**

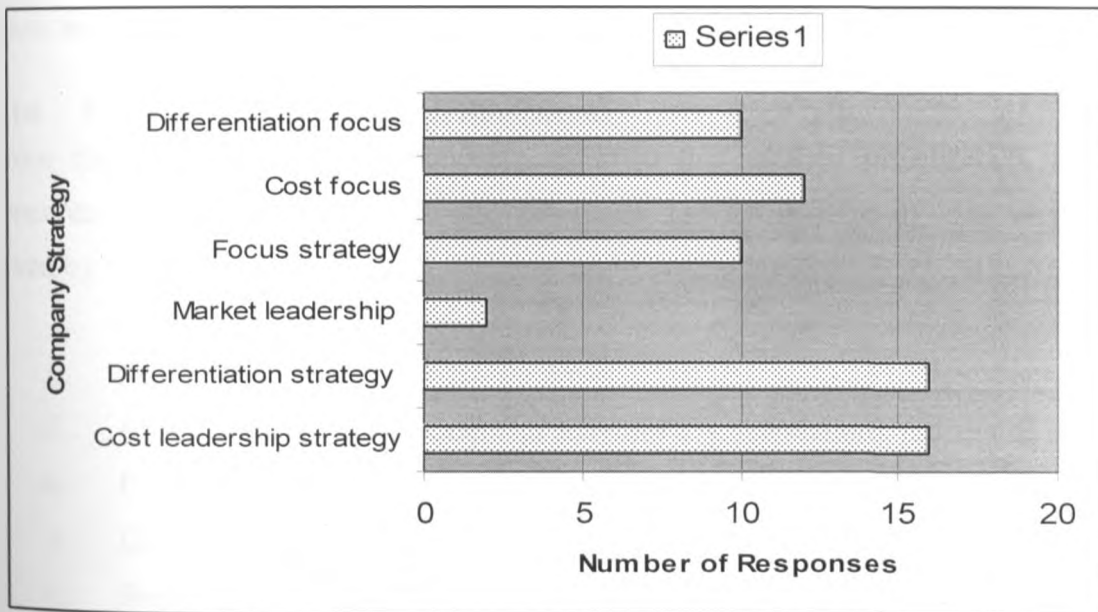
Kshs. (millions)	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
0-200	9	7	10	7	8
201-400	4	4	3	2	4
401-600	5	2	5	6	3
601-800	2	2			2
801-1billion	3	2	3	2	3
Above 1billion	5	5	4	2	4

**Data Source: Questionnaire**

**4.8 Business strategies**

From the responses given in figure 4 below, majority organizations interviewed compete on both differentiation and cost leadership strategies. Differentiation is the leading strategy for it is used by 37.5% followed by cost leadership, which is used by 22.5% of the firms interviewed. They also indicated evidence of applying cost focus and differentiation focus.

**Figure 4. The Companies Business strategy (ies)**

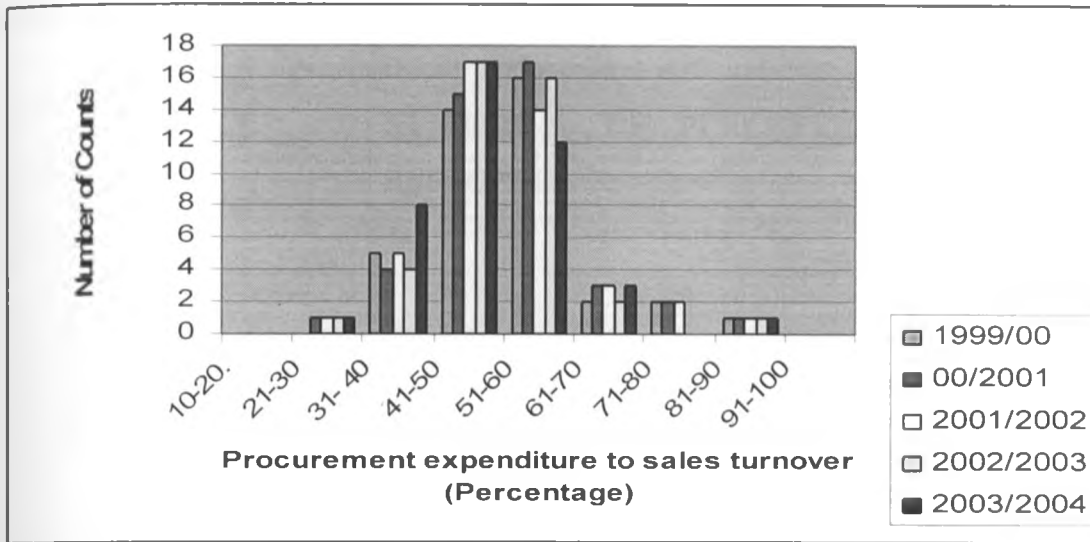


**Data Source: Questionnaire**

#### 4.9 Percentage of procurement expenditure to sales turnover

From the evidence given in figure 5 below which is also diagramed in figure 8 below it, it is clear that for all the years majority between 1999 and 2004 firms spend between 41 and 50% of their sales on the purchase of materials.

**Figure 5. Approximate sales revenue spent on procurement**



**Data Source: Questionnaire**

#### 4.10 Performance measurement dimensions

From the responses given, respondents indicated that in their organization, the following procurement dimensions are commonly measured. The list is given in order of importance as given by respondents.

- i. Quality of purchases;
- ii. Supplier lead time;
- iii. Effectiveness of the procurement activities e. g negotiations, processing of orders etc;
- iv. Contribution of procurement to Corporate competitiveness;
- v. Customer Satisfaction;
- vi. Supplier performance;
- vii. Compliance to company's procurement guidelines;
- viii. Response time to user demand;
- ix. Supplier Relations;
- x. Administration cost the procurement department;



- xi. Procurement's contribution to company Profitability; and
- xii. Contribution of Procurement department towards the company's Social responsibility.

#### 4.11 Procurement performance measurement

The companies interviewed indicated that 60% of them measure procurement performance on various dimensions as given in section 4.9 above. The responses of those who measure compared to those who don't are given in table 10 below.

**Table 5. Procurement performance measurement**

VARIABLE	NUMBER OF RESPONSES	PERCENTAGE
Measure	24	60%
Don't measure	16	40%
<b>Total</b>	<b>40</b>	<b>100</b>

**Data Source: Questionnaires**

#### 4.12 Reasons why organizations don't measure procurement performance

The companies, which don't measure procurement performance, gave the following reasons:

- i. The nature of business in certain sectors makes it difficult to measure procurement performance;
- ii. The purchasing process is still manual and not computerized and therefore it's not accurate enough to manually retrieve necessary data for performance measurement;
- iii. Lack of adequate manpower allocated to the area of procurement while every activity is urgent;
- iv. Lack of a well-structured procurement system to enable measurements be done;
- v. The purchasing function is not centralized but rather decentralized to user departments. This makes it rather difficult to set uniform indicators which could be used in measurement; and
- vi. Lack of relevant performance Indicators.

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1

#### 4.13 Frequency of procurement performance measurement

Out of the companies that measure procurement performance majority of them measure monthly (25%), however 8.3% did not specify the frequency of procurement measurement. The responses of frequency of measurement are given in table 10 below.

**Table 6. Frequency of Procurement performance**

VARIABLE	RESPONSES	PERCENTAGE
Annually	3	12.5%
Bi annually	4	16.7%
Quarterly	5	20.8%
Monthly	6	25%
Weekly	1	4.2%
Daily	1	4.2%
As per requirement	1	4.2%
Regularly	1	4.2%
Not defined	2	8.3%
<b>Total</b>	<b>24</b>	<b>100%</b>

**Data Source: Questionnaire**

#### 4.14 Procurement Performance indicators

The table below lists various performance indicators for various procurement performance dimensions as given by respondents.

**Table 7. Vital performance indicators**

DIMENSION	INDICATORS
i. Quality of purchases	<ul style="list-style-type: none"> <li>• Non conformances –rejects</li> <li>• Users complaints</li> <li>• End product quality</li> <li>• User satisfaction level</li> </ul>
ii. Supplier lead times	<ul style="list-style-type: none"> <li>• Standard Lead times</li> <li>• Responses time to user demand</li> </ul>
iii. Effectiveness of the procurement	<ul style="list-style-type: none"> <li>• Standard Lead times</li> </ul>

process	<ul style="list-style-type: none"> <li>• Adherence to documented procurement Procedures</li> <li>• Continuity of supply as per production schedules</li> <li>• Intra organizational interface among the users</li> </ul>
Contribution of procurement to Company Profitability	<ul style="list-style-type: none"> <li>• Cost reduction for procured goods</li> <li>• Having stock at the right time to avoid rush orders</li> <li>• Demurrage charges on procured goods</li> <li>• Letter of credit costs</li> <li>• Saving against budget</li> </ul>
Procurement efficiency	<ul style="list-style-type: none"> <li>• Adherence to quarterly procurement budget</li> <li>• Procuring on a Just – In – Time basis</li> <li>• Total cost of supply</li> </ul>
Response time to user demand	<ul style="list-style-type: none"> <li>• User requisition lead period</li> <li>• Supplier lead times</li> </ul>
Compliance to procurement guidelines	<ul style="list-style-type: none"> <li>• Adherence to authorization limits in use</li> <li>• Adherence to approved supplier limits</li> <li>• Raising of purchasing requisition</li> <li>• Follow company group buying policies</li> <li>• Compliance with internal and external audits</li> <li>• Adherence to tender committee resolutions</li> </ul>
Supplier Relations	<ul style="list-style-type: none"> <li>• Number of Memorandum of Understandings (MOUs) signed with selected suppliers for a stated period</li> <li>• Number of Contract agreements signed</li> <li>• Payment schedules arranged with suppliers</li> <li>• Supplier feedback or number of complaints</li> <li>• Payment terms/supplier development</li> <li>• Partnerships arranged</li> </ul>
Customer Satisfaction	<ul style="list-style-type: none"> <li>• Complaints from user departments and or suppliers</li> </ul>
Supplier performance	<ul style="list-style-type: none"> <li>• Delivery periods</li> </ul>

	<ul style="list-style-type: none"> <li>• Stability of prices</li> <li>• After sale services</li> <li>• Number of rejections per supplier</li> <li>• Supplier quality management systems</li> <li>• Supplier lead times and delivery delays</li> </ul>
Social responsibility	<ul style="list-style-type: none"> <li>• Environmental /health and safety standards enforced on our suppliers</li> <li>• Proper disposal of scrap and unusable materials</li> <li>• Sale scrap material for recycling to physically handicapped</li> <li>• Encourage /support development of the upcoming small local suppliers</li> <li>• More business given to the local firms</li> </ul>

**Data Source: Questionnaires**

#### 4.15 Overall performance measurement systems

This part of the study sought to establish whether organizations applied the non- traditional performance measurement systems in measuring their company performance.

**Table 8. Overall performance measurement systems applied**

SYSTEM	RESPONSES	%
Balanced scorecard	8	29.6
Performance pyramid	0	0
The Smart System	5	18.5
Performance measurement Questionnaire	2	7.4
Performance Prism	1	3.7
None	11	40.7
<b>Total</b>	<b>27</b>	<b>100</b>

**Data Source: Questionnaire**

Table 8 above shows that 40.7% of manufacturing firms in Nairobi that measure their performance don't use such systems. This means that they use the traditional financial based performance measurement system. However, it is encouraging to note that a number of Kenyan firms are trying to match with their counterparts in the west. This is confirmed by the study report that 29.6% use the Balanced scorecard whereas 18.5% uses the Smart System.

#### 4.16 Application of the systems in measuring procurement performance

Those organizations that measure procurement performance were asked to indicate if they used the overall performance measurement systems used in their organization for measuring procurement performance. Their responses were as indicated in the table below.

**Table 9. Application of the same systems in measuring procurement performance**

VARIABLE	RESPONSES	PERCENTAGE
Applying	14	58.3
Not applying	10	41.7
<b>Total</b>	<b>24</b>	<b>100</b>

**Data Source: Questionnaire**

From the table 9 above 58.3% of those firms that measure procurement performance confirmed that they use those systems in measuring procurement performance whereas 41.7% don't.

#### 4.17 Benefits of measuring procurement performance

According to the responses given, measuring procurement performance is beneficial for it:

- i. Enhances High levels of procurement efficiency;
- ii. Promotes better control of the procurement process;
- iii. Helps to identify areas of weakness in the supply chain;
- iv. Facilitates competitiveness in the pricing of end products;
- v. Enhances supplier performance in quality and timely delivery;
- vi. Facilitates comparisons with other companies;
- vii. Helps to measure savings through procurement;
- viii. Helps to identify key areas through which procurement can contribute to profitability and competitive advantage;
- ix. Helps to measure the fitness of procurement function into corporate

Strategy; and

- x. Helps in the appraisal and rewarding of procurement staff.

#### **4.18 Major challenges faced when measuring procurement performance**

Respondents interviewed listed the following challenges, which they face when measuring procurement performance in their organization.

- i. Lack of relevant performance indicators;
- ii. Difficulties in measuring supplier lead times as this is affected by various factors;
- iii. Inability to account for the contribution of other functions in the procurement process e.g. users and finance;
- iv. Lack of transparency in the procurement process;
- v. Lack of clear procurement policies and procedures;
- vi. Lack of adequate professionalism in procurement. Procurement is an activity performed by anybody-secretaries, personnel officers, administration assistants and accountants;
- vii. Poor recording systems for procurement data; and
- viii. Employees' attitude. Some feel measuring is tedious, they don't have time for it etc.

#### **4.19 Additional comments**

Asked on extra comments they can give concerning procurement performance, respondents gave the following views:

- i. Some companies are implementing Total productive Maintenance (TPM). This is a methodological and pragmatic way to increase competitiveness by systematically converting losses into gains. It employs the Pareto principle in the deployment of losses to identify focus areas. Simple losses are attacked using simple tools and as losses are eradicated complex tools are employed. Towards this goal, companies are driving toward World class Manufacturing (WCM). To measure performance is the first step to improve the goal;
- ii. Procurement activities are largely performed by non professionals;
- iii. The procurement function is regarded as clerical so much that its

performance is not a bother in many organizations;

- iv. In most cases the function report to finance department and its performance could be measured there without the involvement of procurement; and
- v. In most cases procurement function is not an independent department with responsibility over its performance.

## **CHAPTER FIVE: SUMMARY, DISCUSSIONS AND CONCLUSIONS**

### **5.1 Overview**

This chapter summarizes, discuss and make conclusions on findings of this study in relation to the objectives put forward in chapter 1. It also discusses recommendations of the study, its limitations and suggested areas for further research.

### **5.2 Summary Discussions**

This study sought to achieve the following objectives:

- i. To establish if large manufacturing firms in Kenya formally measure procurement performance;
- ii. To identify performance measurement systems used in measuring purchasing and supply performance;
- iii. To identify performance dimensions emphasized by the firms when measuring procurement performance;
- iv. To identify indicators used to measure each procurement performance Dimension; and
- v. To establish benefits and challenges of measuring procurement Performance.

The results of the study show that:

From the findings of the study 60% of manufacturing firms in Kenya measure procurement performance. This is in contrast to an argument by Msimangira (2001) that purchasing performance is ignored. It could be ignored but in Kenya this study shows that most manufacturing firms are keen on it. This could be a confirmation to arguments that the need for performance measurement has increased with changing business environments, leading to more rapid changes in business strategy (Nelly, 1991). Further observations indicate that these firms may not be having sophisticated and well detailed systems but they have a concern for certain aspects of procurement performance and they measure them. As regards the characteristics of those firms that measure, the study shows that:

- i. 45.8% of them are fully locally owned followed by those that are more than 50% foreign owned (20.8%);



- ii. Majority of these firms operate in the Chemical and allied sector (25%) followed by those in the pharmaceutical and Medical equipment sector (16.7%). These are also followed by a mixture of others operating in such sectors as the media, tobacco and household and beauty product manufacturers;
- iii. Majority of these firms (38.5%) follow the differentiation strategy Whereas those that follow the cost leadership strategy (26.9%) come second;
- iv. Majority of these firms (16.7%) have sales revenues ranging between kshs. 460m and kshs. 1billion whereas their profit range from kshs. 0 to 200 million. However, this result may not be relied on because 37.5% of respondents, who measure, didn't indicate their sales turnover whereas 50% also never indicated their profit levels;
- v. Majority of these firms (15.4%), spend between 41 and 50% of their sales revenue on procurement. This result as well may not be reliable, as 33.7% percent respondents from these firms kept privy to their company profits;
- vi. Majority of them measure the performance monthly (25%) followed by those that measure quarterly (20.8%); and
- vii. An examination of the sales revenue trend of those that measure procurement performance for the period between the years 1999 and 2004 shows that sales revenues for majority (30.8%) of those that measure have an increasing trend. While their Profit levels show a constant trend. They neither increase nor decrease. However, it is important to note that 37.5 % of the respondents didn't respond to the question concerning their sales revenue whereas 50% didn't respond on their profits. Possibly even those that responded probably never gave a true picture of their sales revenues and profit levels.

As regards the performance measurement systems used in measuring procurement performance, respondents were asked to state whether they use new non-traditional performance measurement systems. The study shows that 58.7% of large manufacturing firms in Nairobi that measure procurement performance actually use such systems whereas 41.3% don't apply them. This leaves us to conclude that they use traditional performance systems. This confirms that Kenyan manufacturing firms are closely following the west in employing the non-traditional performance

measurement systems. Probably it is a preferred system because one, it summarizes in one management report, many seemingly disparate elements of a company's competitive agenda, two, it prevents sub-optimization by forcing senior managers to consider all operational measures at the same time (Newing, 1995). This is also a confirmation of arguments that organizations have had to change their performance measurement systems, dimensions and indicators so as to align them with their current strategy (Nelly, 2001).

The study revealed that many of those that measure procurement performance do so based on varied performance dimensions. Among the most commonly identified in majority of the organizations are listed below in order of preference/frequency:

- i. Quality of purchases;
- ii. Supplier lead-time;
- iii. Effectiveness of the procurement activities e. g negotiations, order processing etc;
- iv. Contribution of procurement to corporate competitiveness;
- v. Customer satisfaction;
- vi. Supplier performance;
- vii. Compliance to company's procurement guidelines;
- viii. Response time to user demand;
- ix. Supplier relations;
- x. Administration cost of the procurement department;
- xi. Procurement's contribution to company Profitability; and
- xii. Contribution of Procurement department towards the company's Social responsibility

As per the indicators used to measure each dimension, the study shows that companies in Kenya might not have uniform indicators for each dimension. This confirms arguments by Russil (1997) and Syson (1997) that there is no common opinion about what should be measured in procurement. Also there is an indication that one indicator may be used to assess several dimensions. Details concerning indicators for each dimension are given in table 7 on pg 34.

As concerns benefits of measuring procurement performance, this study actually shows that those who measure procurement performance enjoy numerous benefits. Details of this benefits

are given in page 38. These benefits actually facilitate the achievements of company efficiency and effectiveness.

Many of the listed benefits indeed concur with arguments made by Knudsen, (1999); Gates (1999); Lingle and Schievemann (1996) and Dobler and Burt (1996)

Whenever there is a benefit, there won't miss challenges. The study shows that manufacturing firms in Kenya experience the following challenges when measuring procurement performance. details concerning the challenges are in page 39.

Following additional comments given by respondents, the study further reveals that in some manufacturing firms in Kenya, Procurement activities are largely performed by non-professionals. This is probably because of another view given that the procurement function is regarded as clerical activity. As a result its performance is not a bother in such organizations. The report also gave evidence that the procurement function in most cases is not an independent department with responsibility over its performance. It either reports to finance or production departments and hence its performance could be measured from the two fronts without the involvement of procurement personnel.

### **5.3 Conclusion**

From the findings of the study, the following conclusion can be made:

First, most manufacturing firms in Kenya know and appreciate the importance of measuring procurement performance. The study has clearly shown this by the fact that 60% of manufacturing firms measure procurement performance although what is measured and the intensity of what is measured is varied.

Two, the traditional performance measurement systems are used by 40.7% of manufacturing firms in Nairobi. This indicates therefore, that the remaining 58.3% uses various non-traditional performance measurement systems. For instance the study shows that 29% of them use the Balanced scorecard and 18.5% use the Smart system. The study further shows that 58.7% of the firms that use these non-traditional firms apply them in procurement performance measurement.

Third, the study indicates that attempts to monitor and evaluate procurement performance are dogged by myriads of handicaps, which include lack of professionalism, poor data management and the operation of manual systems in procurement.

Fourth, procurement performance measurement is not a preserve of developed multinationals. This is clearly shown by the fact that majority of those that measure is locally owned companies. Perhaps this is due to the drive for economic recovery and restructuring of the organizations which has necessitated that the purchasing function be streamlined in order to improve purchasing productivity (Mmasingira, 2001) this might also be as a result of such market factors as increasing stringent global competition, the extreme emphasis on quality, and the push to bring products to the market faster (Dobler and Burt, 1996), the need to improve buyer supplier relationships (Knudesen, 1999) and the need to improve stock prices (Gates, 1999).

#### **5.4 Recommendations**

Arising from the findings of this study, several recommendations can be made. These recommendations are aimed at improving the performance (efficiency and effectiveness) of procurement as a function with great potential to enhance profitability and competitiveness of firms

One, owing to the huge sums of money organizations spend on procurement (41-50% of sales revenue) there is need to emphasize on performance measurement in this areas. This will help identify areas of weakness, control efficiency, increase profitability and competitiveness of firms.

Two, for the full fruits of procurement performance measurement to be realized, organizations need to embrace the importance of professionalism and independence of the function.

Three, there is need for procurement professionals to come together and develop sectoral procurement performance measurement indicators to facilitate uniform measurements and inter company benchmarking.

### **5.5 Suggested areas for further research**

This study opens up the field for interested researchers to probe further into the area of procurement. More particularly further research should be conducted in the following areas:

- i. Procurement performance measurement systems in public and service organizations. This study only concentrated on manufacturing firms;
- ii. The contribution of business strategy towards procurement performance Measurement; and
- iii. Procurement strategies adopted by manufacturing firms in Kenya and their implications on procurement performance measurement.

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## APPENDIX 1: QUESTIONNAIRE

### PART A: COMPANY PROFILE

1. Company name.....
2. Respondent's title .....
3. Email address (optional).....
4. Company ownership (tick one as appropriate)
  - Fully Local
  - Fully Foreign
  - More than 50% foreign
  - More than 50 % local
5. Nature of sector operated in. (please tick as appropriate)
  - Motor vehicle and accessories
  - Chemical and allied
  - Metal and allied
  - Food and beverage
  - Leather and footwear
  - Paper and board
  - Energy, electrical and electronics
  - Plastics and rubber
  - Textiles and apparels
  - Pharmaceuticals and medical equipment
  - Others (specify).....

6. From the provided list of objectives please tick those that apply in your company.

- To be a socially responsible company.
- To maintain a reputation for honest and reliable business conduct.
- To maintain sound principles of corporate governance, critical to obtaining and relating the trust of shareowners, employees and other stakeholders.
- To achieve world-class standards in product quality.
- To develop a business model that will deliver consistent level of profitability.
- Others (please specify in the space below)

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7. Which of the following are some of your company's procurement objectives? Please tick as appropriate.

- To supply the company with a steady flow of materials to meet its operational needs.
- To obtain materials and other supplies at the right time.
- To obtain the maximum value of money spent in purchases.
- To manage the procurement function at the minimum cost.
- To maintain a sound relationship with both suppliers and all customers, be they internal or external.
- To keep inventory investment and inventory losses at a practical minimum.
- To foster honesty, fair, and legal trade practices with our suppliers.
- To design and maintain effective procurement processes that will support efforts to achieve company goals and objectives.
- Embrace a strategic approach to procurement in line with company strategy.
- Others (please specify in the space provided below).

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8. Which of the following represents an approximate sales turnover for your company during the specified years (Kshs. millions)? Tick as appropriate.

	<u>2003/4,</u>	<u>2002/3</u>	<u>2001/2</u>	<u>2000/1</u>	<u>1999/00</u>
<input type="checkbox"/> 460-960	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 960-1460	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 1460-1960	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 1960-2460	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 2460-2960	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> Above 2960	[ ]	[ ]	[ ]	[ ]	[ ]

9. Which of the following represents your company's profits (Kshs. Millions) for the years specified? Tick as appropriate.

	<u>2003/4,</u>	<u>2002/3</u>	<u>2001/2</u>	<u>2000/1</u>	<u>1999/00</u>
<input type="checkbox"/> 0-200	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 201-400	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 401-600	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 601-800	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 801-1billion	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> Above 1billion	[ ]	[ ]	[ ]	[ ]	[ ]

10. Which of the following represents the business strategy (ies) followed by your company? Please tick as appropriate. (If not familiar please refer to brief notes provided at the end of questionnaire)

- Cost leadership strategy
- Differentiation strategy
- Focus strategy
- Cost focus
- Differentiation focus
- Any other (specify).....

11. Which of the following represents your company's approximate (%) of procurement expenditure to sales turnover for the years specified?

	<u>2003/4,</u>	<u>2002/3</u>	<u>2001/2</u>	<u>2000/1</u>	<u>1999/00</u>
<input type="checkbox"/> 10-20	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 21-30	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 31- 40	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 41-50	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 51-60	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 61-70	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 71-80	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 81-90	[ ]	[ ]	[ ]	[ ]	[ ]
<input type="checkbox"/> 91-100	[ ]	[ ]	[ ]	[ ]	[ ]

**PART B: PERFORMANCE MEASUREMENT DIMENSIONS**

12. Based on the scale provided below, what relative importance does your company place on the following dimensions?

**1- not important 2- slightly important 3- important 4- very important 5- crucial 6- not applicable**

<b>Dimension</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Procurement's contribution to company Profitability						
Administration cost the procurement department						
Effectiveness of the procurement activities e.g negotiations, processing of orders etc						
Quality of purchases						
Response time to user demand						
Supplier lead times						
Compliance to company's procurement guidelines						
Contribution of procurement to Corporate competitiveness						
Supplier Relations						
Customer Satisfaction						
Supplier performance						
Contribution of Procurement department towards the company's Social responsibility						

13. Does your company normally measure the extent to which the above dimensions are achieved?

- Yes
- No

14. Other than the dimensions outlined in number 12, list any other procurement factors/issues normally measured in your company.

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15. If your answer to question 13 is no, please list major reasons why you don't, in the space provided below

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16. If your answer to question 13 is yes, how frequent do you measure? (Tick as appropriate)

- Annually
- Bi annually
- Quarterly
- Monthly
- Weekly
- Daily
- Others (specify).....

## PART C: PERFORMANCE INDICATORS

17. For each of the areas you have highlighted as very important or important in question 12, list three (3) vital performance indicators that you measure as provided in the table below.

DIMENSION	INDICATORS
Contribution of procurement to Profitability	I  ii  iii.
Procurement efficiency	i.  ii.  iii
Effectiveness of the procurement process	i.  ii.  iii.
Quality of purchases	i.  ii.  iii.
Response time to user demand	i.  ii.  iii.
Corporate competitiveness	i.  ii.  iii.
Compliance to procurement guidelines	i.  ii.  iii.
Supplier Relations	i.  ii.

	iii.
Customer Satisfaction	i. ii. iii.
Supplier performance	i. ii. iii.
Social responsibility	i. ii. iii.

**PART D: PERFORMANCE MEASUREMENT SYSTEMS**

18. Which of the following systems are applied in the overall performance measurement of your company? Tick as appropriate. *(If not familiar please refer to notes provided at the end of questionnaire)*

- The Balanced Score Card
- The Performance Pyramid
- The Smart System
- The Performance Measurement Questionnaire
- The Performance Prism
- Others (please specify) .....

19. Do you apply the same systems when measuring procurement performance?

Yes                        No           

20. If the answer is No, please name the system(s) you use if any.

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**PART E: PERFORMANCE MEASUREMENT BENEFITS AND CHALLENGES**

21. In the space provided below please list the major benefits experienced by your company from measuring procurement performance

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22. In the space provided below please list the major challenges your company faces when measuring procurement performance

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## DEFINATION OF TERMS

1. **Procurement.** As used in this paper, procurement refers to the activities of purchasing, purchasing research, supplier management, management of purchased materials & equipment and the disposal of surplus and scrap stores and equipment.
2. **The Balanced Scorecard.** This is performance measurement technique, which seeks to answer four basic questions: How do customers see us? What must we excel at? Can we continue to improve and add value; and how do we look at shareholders? By each of the above perspectives, goals are set by the managers. Similarly specific measures are specified in order to achieve each goal. It is a multi-dimensional measurement instrument, which aims to extend the scope of management information from financial measures to include other non-financial aspects linked to business unit strategy. Furthermore, these systems measure the achievement of the components of the strategic plan and act as a strategic management system.
3. **The SMART system.** This is a performance measurement technique whose main objective is to measure the efficiency and effectiveness of a company by how much it achieves its objectives at the company's various levels: corporate level, business units level and departments/work centres levels.
4. **The Performance Measurement Questionnaire (PMQ).** This a measurement technique developed to help managers identify the improvement needs of their organization, to determine the extent to which the existing performance measures support improvements and to establish an agenda for performance measure improvements. This measurement system consists of four parts. The first provides general data used to classify respondents. Part two assess the company's competitive priorities and performance measurement systems (improvement areas), part three focuses on performance factors (performance measures). The final part asks the respondents to provide performance measures that best evaluate their own performance and any other general comments.
5. **The Performance Prism.** This is a Performance measurement technique. Which is concerned with measurement of the processes required to deliver objectives and the capabilities required to support and enhance these processes. It is a performance management tool that adopts a stakeholder centric view of performance measurement. It is meant to reflect the growing importance of satisfying stakeholder requirements. It emphasizes that consideration must be given to an organizations major stakeholder groups such as shareholders, investors, customers, employees and suppliers, all of which are incorporated into the balanced scorecard, or variants of it. In addition to these stakeholders, the Prism also considers a group of stakeholders of growing power and significance in the current business environment, regulators and pressure groups. It also emphasizes that having identified the key stakeholders of the organization and defined their requirements, it becomes necessary to consider whether the organisation has the strategies in place to deliver stakeholder satisfaction.



6. **Cost-Leadership Strategy.** This is a business strategy aimed at making the organization among the lowest cost producers in the market thus selling its products at a low price. This is achieved by such moves as: Securing suppliers of scarce raw materials; gaining unique access to a large source of low cost materials etc.
7. **Differentiation strategy.** This is a strategy that calls for the development of a product or service that offers unique attributes that are valued by customers and that customers perceive them to be better than other competing products.
8. **The Focus Strategy.** A focus strategy whether based on low-cost or differentiation, attempts to attend to the needs of a particular market segment.

## APPENDIX 2: LIST OF FIRMS VISITED

No.	Company Name
1.	Associated Battery Manufacturers (E.A.) Ltd
2.	Associated Steel Ltd
3.	Bayer East Africa Ltd
4.	BOC Kenya Limited
5.	British American Tobacco Kenya Ltd
6.	C & P Shoe Industries Ltd
7.	Cadbury Kenya Ltd
8.	Central Glass Industries Limited
9.	Chandaria Industries Limited
10.	Coca-Cola East Africa Ltd
11.	Colgate Palmolive (E.A.) Ltd
12.	Cook 'N Lite Limited
13.	Corn Products Kenya Ltd
14.	Corrugated Sheets Limited
15.	Dodhia Packaging Limited
16.	East Africa Packaging Industries Limited
17.	East African Sea Food Ltd
18.	Farmer's Choice Limited
19.	Firestone East Africa (1969) Limited
20.	Frigoken Ltd
21.	General Motors Kenya Limited
22.	General Printers Limited
23.	Glaxo Smithkline Kenya Ltd
24.	Haco Industries (K) Ltd
25.	Henkel Kenya Ltd
26.	Indigo Garment (EPZ) Ltd
27.	J.A.R Kenya [EPZ] Ltd
28.	JohnsonDiversey East Africa Limited
29.	Kaluworks Limited
30.	Kapa Oil Refineries Ltd
31.	Kenafriic Industries Limited
32.	Kenchic Ltd
33.	Kenya Breweries Ltd
34.	Kenya United Steel Company Limited
35.	Kenya Wine Agencies Limited
36.	Khetshi Dharamshi & Co. Ltd
37.	Kodak Kenya Limited
38.	Laboratory & Allied Limited
39.	Mastermind Tobacco (K) Ltd
40.	Mecol Limited
41.	Millenium Garments Ltd
42.	Mini Bakeries (Nbi) Ltd
43.	Nairobi Flour Mills Ltd
44.	Nation Media Group Ltd
45.	Nestle Foods Kenya Ltd

No.	Company Name
46.	Premier Flour Mills Ltd
47.	Prestige Packaging Ltd
48.	Procter & Gamble East Africa Ltd
49.	PZ Cussons & Company Limited
50.	Rafiki Millers Ltd
51.	Reckitt Benckiser (E.A.) Ltd
52.	Sara Lee Household and Body Care Kenya Ltd
53.	Spin Knit Dairy Ltd
54.	Steel Structures Limited
55.	Steelmakers Ltd
56.	Tetra Pak Ltd
57.	The Standard Ltd
58.	Thika Cloth Mills Ltd
59.	Twiga Chemical Industries Limited
60.	Twiga Stationers & Printers Ltd
61.	UDV Kenya Ltd
62.	Unga Group Ltd
63.	Unilever Kenya Ltd
64.	United Millers Ltd
65.	Vitafoam Products Limited
66.	W. E. Tilley (Muthaiga) Ltd
67.	Welding Alloys Ltd
68.	Wrigley Company (E.A.) Ltd