

**A SURVEY OF DOWNSIZING STRATEGIES AND PERFORMANCE
OF CHEMICAL MANUFACTURING FIRMS IN KENYA**

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By

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**A Management Research Project Submitted In Partial Fulfillment Of The
Requirements For The Degree Of Master Of Business Administration
(MBA) Of The University Of Nairobi, School Of Business.**

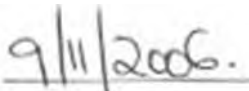
2006




DECLARATION


This is my original work and has not been presented for award of any degree in any university.

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DEDICATION

To my wife Consolata and sons, Keith and Mugi

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The preparation of this research was a cooperative effort from several key individuals and institutions. However, while it might be impractical to mention all of them, some key individuals and institutions deserve mention

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ABSTRACT

The central problem of this study was that while downsizing had been practiced in Kenya for some time, there was little enquiry about downsizing within the chemical manufacturing context. The purpose of this study was to gain a deeper understanding of the various forms of downsizing strategies adopted by chemical manufacturing firms in Kenya. The objectives of the study were to establish the prevalent downsizing strategies practiced by chemical manufacturing firms in Kenya and to determine whether these had any effect on performance.

A descriptive research design was used in this study. The population of interest was all the registered chemical manufacturing firms in Kenya. A sample survey study was done. Descriptive research design was chosen because the study objectives aimed at determining the what, when and how of a phenomenon which was the concern of the study.

Primary data was collected using semi-structured questionnaires. The questionnaires were administered by the researcher or mailed for distant targets. For the purpose of showing the relationship among various variables, quantitative analysis was done using both descriptive statistics. The techniques used were, mean scores, standard deviations. The findings from the study were presented in tables.

The research found that chemical manufacturing firms in Kenya pursue the three downsizing strategies. The most prevalent strategy was retrenchment followed by downscaling and downscoping. Their resultant effects on subsequent firm performance were improvements in both financial and non-financial measures of performance.

Based on these findings, it is recommended that chemical manufacturing firms in Kenya should adopt downsizing. Retrenchment was found to be the most reasonable due to the productivity challenge facing chemical manufacturing firms. The major limitation of the study was difficulty in providing the objective measures of performance by chemical manufacturing firms.

CHAPTER ONE: INTRODUCTION

1.1 Background

Downsizing is often narrowly defined. Furthermore, influences leading firms to downsize are rationalized from only one or two examples. As a result downsizing has not been a very useful strategy research construct. More rigour is needed in the study of downsizing (DeWitt, 1998). Downsizing has been a major and controversial organizational trend since the early 1980s. A prominent rationale for downsizing has been that large industrial firms are "fat". But whether downsizing can improve firm performance has been a central question with many studies reporting mixed results (Love&Nohria, 2005, p. 1087).

The 1960's had limitless possibilities of growth and expansion. This was followed by a period of industrial strife, conflict and retrenchments in the 1970's. After the turmoil of the 1970's then came the 'enterprise' culture of the 1980's. This was a decade of privatization, statutory constraints on industrial relations, mergers and acquisitions, strategic alliances, joint ventures, proceed re-engineering and the like transforming workplaces into free market, hot-house cultures (Burke and Cooper, 2000 as quoted in Mwangi, 2002). In the period 1999-2001, the chemicals industry was a mature industry. Growth levels were lower than the 1970s and 80s and significantly lower than gross domestic product (GDP). Among others, downsizing and productivity emphasis became key themes (Liveries, 2002).

In Kenya, studies have shown that downsizing is associated with negative effects, such as employee motivation suffering, heightened political behavior and anxiety among survivors (Mwangi, 2002; Huka, 2003). There have also been cases of improved performance through efficiencies in reduction of costs, improved quality, better decision-making flows. However there has not been any enquiry on a downsizing strategies and effects on performance from a manufacturing perspective. Most studies reviewed from other contexts have studied this from industry perspective (DeWitt 1998; Farrell& Mavondo, 2005; Love&Nohria, 2005). This study therefore seeks to understand downsizing strategies of chemical manufacturing firms in the Kenyan context.

1.1.1 Downsizing and Performance

Discussions of downsizing commonly note the interdependence between the firm's downsizing approach and the historical and competitive position of the shrinking firm. According to DeWitt (1998), there are broadly three downsizing approaches: retrenchment, downscaling, and downscoping. Dewitt further delineates at least five forms of downscoping. Three reduce the horizontal scope of the firm while two reduce the vertical scope.

The performance of an organization is adjudged, either internally or externally, on its ability to meet the targets of product quality, prices or its outcomes such as profits. Performance indicators are difficult to design. Some indicators are qualitative in nature, while the hard quantitative end of assessing performance has been dominated by financial analysis (Johnson&Scholes, 2004).

According to studies done in other contexts, namely the United States of America and Australia, the evidence concerning the effects of downsizing on organizations is unclear. Cascio (1993, as quoted in Farrell&Mavondo, 2005) found that organizations that downsize do not produce better results with regard to return on investment, sales gains, or other objectively measurable bottom-line outcomes than those organizations that do not downsize. Downsizing is beneficial because it helps to 'turn around organizations' and is critical in eliminating excessive costs and improving the flexibility and market responsiveness of the organization (Robbins&Pearce, 1992; Pearce &Robbins, 1993 as quoted in Farrell and Mavondo, 2005, p.98).

In the Kenyan environment, studies have by and large restricted themselves to the behavioral effects of downsizing and not on performance. It is useful therefore to enquire on the effects of downsizing on performance and we choose the chemical industry for mention for a number of reasons. Most of the other studies have been directed to other sectors like banking and the oil industry and there are no documented studies on the chemicals industry as yet.

1.1.2 The Chemicals Manufacturing Industry in Kenya

Kenya's economy's Gross Domestic Product (GDP) grew from Ksh 968 billion in the year 2000 to Ksh 1,273 billion in 2004. The manufacturing sector continues to play a crucial role in the Kenyan economy. Although its contribution to GDP has oscillated around 13 percent, it has been generally accepted that this sector will play a key role in the growth of the economy. Over the last two years the sector has shown signs of recovery with the annual growth jumping from below 1 percent to about 5 percent in 2003, but sliding to about 4 percent in 2004 (KAM, 2005).

The Chemicals and Allied sector had a production turnover of Ksh 19.7 billion in 2004, which was a 5.9 per cent contribution to the turnover in manufacturing. Employment in this sector stood at 12,197 in 2003, which was five per cent of all employment in the manufacturing industry. The sector had 165 registered enterprises. The sector exported goods worth Ksh 5.6 billion, contributing 11.6 per cent to manufactured export earnings, while imports stood at Ksh 35,162 million (KAM, 2005)

According to the KAM Survey (2005), the sector faces a number of challenges as. Firstly, the high dependence on imported raw materials, which implies that potential entrants into the sector cannot be assured of their sufficient availability, since the import market is influenced by many factors, key among them being the cost of oil, which consequently has a bearing on the exchange rate and cost of such materials. The stiff competition from imports also contributes to discouraging new investments into the sector, since investors are always looking for a guaranteed market share before committing capital into a long-term investment. Secondly, anomalies in the Common External Tariff (CET). According to the CET, some finished products are classified as raw materials. This may force some industries to close down, if the competing imports are allowed to come into the region at 0 percent import duty. Therefore, it will be important to review the classification of products and subsequent duties charged. Formal employment in the sector declined over the period 1999 to 2003, from 12,539 in 1999 to 12,197 in 2003. Productivity using value added at basic prices in the chemical and allied sector declined throughout the period 2000 to 2003, from Ksh 6.2 billion

in 2000 to Ksh 4.7 billion in 2003. These challenges above invite innovative responses from the industry and it is contextual therefore to explore downsizing as a possible response.

1.2 The Research Problem

A review of the literature indicates a mixed picture on effects of downsizing. Caselo (1993, cited in Farrell& Mavondo, 2005) found that organizations that downsize do not produce better results with regard to return on investment, sales gains, or other objectively measurable bottom-line outcomes than those organizations that do not downsize. Others argue that downsizing is beneficial because it helps to turn around organizations and is critical in eliminating excessive costs and improving the flexibility and market responsiveness of the organization (Robbins & Pearce, 1992; Pearce and Robbins, 1993 as quoted in Farrell& Mavondo, 2005).

Mwangi (2002) in a survey of downsizing attitudes among Kenyan banks argues that workers suffer job-induced stress as a result of downsizing. Huka (2003) in a survey of practices of downsizing among major oil firms in Kenya found that a firm's reputation as a good employer suffers, downsizing affects survivors, employees' motivation is disrupted; there is increase in political behaviour, anger and fear, which is likely to impact negatively on the quality of customer service.

Studies from other contexts support the view that downsizing improves performance, Love and Nohria (2005) in a study involving the 100 largest American industrial firms from 1977 to 1993 found that downsizings are more likely to lead to improved performance when firms have high slack, when their scope of downsizing is broad, and when downsizing is done pro-actively. Downsizing invariably affects performance of firms, but the nature or effects that are not as apparent. Studies in Kenya have mainly considered the behavioural effects and not performance.

Research question: What are the strategies of downsizing that have been prevalent within the Kenyan chemical manufacturing industry and their effects on performance?

1.3. The Research Objectives

The study therefore focused on the following objectives:

- a) To identify which downsizing strategies are prevalent within the chemical manufacturing industry in Kenya
- b) To determine whether downsizing influences performance of chemical manufacturing firms.

1.4. Importance of the study

The study would be of immense importance to a number of bodies. Researchers in this area would benefit from the findings besides the limitations of the study. This would prove invaluable to future research in this area. Policy makers both in government and practitioners in industry would benefit from the findings of the study in terms of highlighting best practice in the practice of downsizing. To academicians, the study would contribute to enriching the body of knowledge in the area of downsizing in Kenya.

CHAPTER TWO: LITERATURE REVIEW

2.1 The Concept of Downsizing

A review of the literature reveals varied definitions on this subject. Many see downsizing as primarily a reduction in work force. Mwangi (2002) argues that downsizing strategy entails reduction in workforce and not necessarily reduction in the assets of the organization. Farrell and Mavondo (2005) relate downsizing to workforce reduction, but it is the elimination of jobs or positions rather than the dismissal of individuals or individual departures via normal retirement-or voluntary retirement. Dewitt (1993, as quoted in Farrell and Mavondo, 2005, p 103) defines downsizing as:

Management's reduction in their organization's use of human and /or capital resources to correct misalignment and improve performance when organization decline and environmental decline are present. Through selective cuts in resources, the organization's internal processes and domain choice are realigned with the limited environmental opportunities.

Cameron (1994, as quoted in Farrell and Mavondo, 2005) conceptualize downsizing somewhat differently, as an intentionally instituted set of activities designed to improve organizational efficiency and performance which affect the size of the organization's workforce, costs and work processes. It is implied therefore that downsizing is usually undertaken to improve organizational performance. Downsizing therefore may be reactive or pro-active. It may also imply a refocus on certain core businesses and a disposal of peripheral ones (Farrell and Mavondo).

Other literature have also justified downsizing from the point of view of slack presence in an organization (Cameron et al 1993; Freeman and Cameron, 1993, as quoted in Love and Nohria, 2005: 1088) conceptualize downsizing as an intentional effort to permanently reduce personnel in order to improve organizational efficiency and/or effectiveness. The definition implies the existence of excess, removable personnel and suggests then that downsizing be

conceptualized as an attempt to reduce slack. In this study, we pursue the approach adopted above by DeWitt as it relates downsizing in terms of environmental decline.

2.2 Reasons and Types of Downsizing

Literature shows that the concept of downsizing gained prominence in the 1990s. It was found that downsizing was first applied to the process of cutting back employees in the 1980s in the United States of America in response to recessionary pressures (Dawkins et al. 1999 as quoted in Farrell and Mavondo, 2005). Many organizations downsized to become and remain competitive. According to Littler et al (1997, as quoted in Farrell and Mavondo, 2005), 57 percent of Australian organizations downsized between 1993 and 1995.

In Kenya, Huka (2003) found that the biggest cutbacks on employees in the oil industry occurred in the period between 1992 and 1997. These firms in Kenya resorted to staff downsizing due to performance of the national economy, competition due to liberalization and declining profit margins. Hamel and Prahalad (1994, as quoted in Farrell & Mavondo, 2005) argue that return on investment (ROI) has two components, a numerator – net income – and a denominator – investments, net assets, or capital employed. They postulate that raising net income is difficult and takes longer than cutting assets and headcount. This difficulty, they argue is one of the main reasons for the obsession with denominator management, in the form of downsizing.

(Cyert & March, 1963; Bourgeois, 1981 as quoted in Love & Nohria, 2005) do not restrict themselves to personnel only, rather even excess resources such as retained earnings, excess inventory and working capital. Slack is categorized as either absorbed or available dependent on ease of recovery or redeployment. Available slack is highly flexible and easily redeployed such as retained earnings, while absorbed slack is not easily redeployed, excess personnel is an ideal example. More specifically, then, downsizings aim to reduce absorbed slack and transform it to available slack through cost savings and increased cash flow (Love & Nohria).

De Witt (1993, as quoted in DeWitt, 1998) gives the construct a broader perspective with the model of the three approaches. The first downsizing approach, retrenchment, maintains the firm's scope while maintaining or even augmenting its output. Retrenchment tactics include

centralization and specialization of production, alteration of supplier relationships, and realignment of managerial responsibilities.

The second downsizing approach, downscaling, is the use of permanent cuts in human and physical resources to maintain product line and market scope yet reduces output to bring supply in line with demand. Downscaling vacates competitive space and involves permanent sacrifice of scale advantages. De Witt argues that so long as permanent scale reductions do not shrink the firm's boundaries by changing its product line and market scope, such resource reductions qualify to be called a downscaling downsizing approach (De Witt 1993, as quoted in DeWitt, 1998).

The third downsizing approach, downscoping, directs reductions at resources underlying variety in a firm's activities. Downscoping usually combines physical and human resource reductions with simplification of organizational systems or processes (DeWitt, 1998). Downscoping then has at least five forms. Three reduce the horizontal scope of the firm while two reduce the vertical scope. One form of downscoping is product line pruning. This is where there is sale of manufacturing or distribution rights or outright product elimination in conjunction with personnel reductions to rationalize product portfolio (Kotler, 1965, as quoted in De Witt, 1998). Porter (1980, as quoted in DeWitt, 1998) argues that market withdrawal is where a firm that serves distant, population sparse, or other geographically non- viable market positions, eliminates associated people and facilities. Others also argue that market withdrawal is likely to reduce both the firm's scope and scale and ultimately reduce its ability to use internal transfers to support geographically dispersed operations (Kogut & Kulatilaka, 1994 as quoted in De Witt, 1998).

The third horizontal form is called customer withdrawal, where the firm severs relationships with customers who account for a small proportion of current and future business, lack sound business fundamentals, or are inherently price sensitive because they compete in unattractive industries (Whitney, 1996 as quoted in De Witt, 1998). The vertical forms of downscoping (deintegration or impartition) reduce the vertical scope of the firm. Backward deintegration eliminates upstream input production, whereas forward deintegration eliminates ownership of distribution or retail facilities (Barreya, 1988; Kreiken, 1980; Porter, 1985 as quoted in De Witt, 1998).

2.3 Benefits of Downsizing

There are various benefits of downsizing discussed in literature. The benefits are closely related to the scope of downsizing approach adopted. Farrell and Mavondo (2005) argue that the expected benefits of downsizing are improved performance along a variety of performance dimensions. Madison and Clancy (2000, as quoted in Farrell and Mavondo, 2005) found that initial downsizing is associated with improved performance, and that subsequent reductions in personnel are associated with poorer performance.

Mishra and Mishra (1994, as quoted in Farrell and Mavondo) examined three downsizing strategies and organizational performance found that the use of organization redesign and systemic change strategies is positively related to organizational performance in terms of both cost reduction and quality improvement. But they also found out that utilizing workforce reduction strategy is negatively related to both cost reduction and to quality improvement performance.

Later, Love and Nohria (2005) reviewed several studies below that showed that a broader scope of downsizing is likely to lead to better results than narrower scope. Cameron et al (1993, as quoted in Love and Nohria, 2005) found that participants' perceptions of downsizing that included organizational redesign (broad scoped) were more positive than those that emphasized workforce reduction (narrow scoped). Further, Freeman and Cameron (1993, as quoted in Love and Nohria, 2005) found that such broader changes could also improve efficiency by reducing costs: they also have substantial potential to increase organizational effectiveness. Reducing the number of management layers not only reduces overhead costs but also improves information flows and reduces decision-making times according to (Neinstedt, 1989; Marks, 2003, as quoted in Love and Nohria, 2005).

2.4 Measurement of Performance

Measuring performance is an integral part of any management control system. Making strategic planning and control decisions requires information about how different subunits of the organization have performed. To be effective, performance measures (both financial and nonfinancial) and rewards must motivate managers and employees at all levels to strive to achieve company strategies and goals. To address the above requirement, some organizations present financial and non-financial performance measures in a single report called the balanced scorecard. Different organizations stress different elements in their scorecards, but most scorecards include: profitability measures; customer satisfaction measures; internal measures of efficiency, quality, and time; and innovation measures (Homgren, Data & Foster, 2003).

Balanced score card approach combine both qualitative and quantitative measures; acknowledge the expectations of different stakeholders and relate an assessment of performance to strategy choice (Johnson & Scholes, 2004). Performance measurement is intended to provide information for control and monitoring. Performance measurement provides the basis for evaluating the quality of the divisional manager's performance but also motivate him to operate his division in a manner consistent with the basic goal of the total organization (Siegel and South 1978, as cited in Minja, 1995). Minja (1995) continues by saying that the other aspect of performance measurement is to find out the performance of a division as an economic entity.

Economic performance of a division is measured to answer the basic question, "should the investment in this segment be increased or maintained or should the division be closed down?" (Pitze, 1987 as quoted in Minja, 1995, p.12) Performance measures therefore can be grouped into two broad groups, accounting (financial) measures and non-financial measures. According to Minja (1995), profitability measures are commonly referred to as accounting/financial measures. Most financial measures are thus related to profit measures and include profit, residual income (RI) and return on investment (ROI). Most financial measures have major weaknesses of focusing on short-term objectives (Drury, 1988 as quoted in Minja, 1995). There is therefore need to use non-financial measures such as labour efficiency and

turnover, customer satisfaction, product quality and reliability, new products and markets and delivery schedules (Minja, 1995).

2.5 Downsizing and Performance

Literature reveals that it is in the effects of downsizing where most debate has been generated amongst scholars (Robbins and Pearce, 1992; Pearce and Robbins, 1993 as quoted in Farrell and Mavondo, 2005) argue that downsizing is beneficial because it helps to turnaround organizations and is critical in eliminating excessive costs and improving flexibility and market responsiveness of the organization. Conversely, Cascio (1993, as quoted in Farrell and Mavondo, 2005) found that organizations that downsize do not produce better results with regard to return on investment, sales gains, or other objectively measurable bottom-line outcomes than those that do not downsize. Lesly and Light (1992, as quoted in Farrell and Mavondo, 2005) in a study conducted by the American Management Association found that only 43.5 percent of the 547 organizations that had downsized during the past six years experienced an improvement in operating profits. Huka (2003) found that effects of downsizing on firm performance are mixed. Some short-term costs savings, but long-term profitability and valuation are not strongly affected. Further a firm's reputation as a good employer suffers.

(Tomasko, 1992; Lublin 1994; as quoted in Farrell and Mavondo) argue that reducing the overall cost structure enables organizations to compete more effectively in the global environment. Most downsizing literature so far has tended to relate to one aspect or few aspects of organizational performance, objective measures. Although objective measures of performance seem intuitively more accurate than subjective measures, there are some potential problems (Farrell and Mavondo, 2005). They further argue that there was little difference between subjective and objective measures and since organizational performance is a complex and multidimensional phenomenon, the use of multi-item scales as opposed to a single item measures is appropriate.

Farrell and Mavondo (2005) in their survey on the effects of two downsizing –redesign strategies on business performance among the top 2000 manufacturing organizations in

Australia used a multi-scale item that captured customer retention, new product success, sales growth, return on investment and overall performance to measure business performance.

Using a structural equation modeling approach (SEM), they concluded that downsizing that drives redesign (reducing workforce) had a negative effect on business performance, while redesign that drives downsizing (restructuring the organization, redesigning tasks) had a positive effect on business performance.

Love & Nohria (2005) offer a contingent perspective on whether downsizing improves organizational performance. They emphasize the role of absorbed slack, but also consider two other important contingencies. Rather than asking whether downsizing is overall effective, they suggest that one should ask what category a downsizing is in, high or low absorbed slack, proactive or reactive, broad or narrow scope. In their study involving 100 hundred large industrial, American firms from 1977 to 1993, they found that overall downsizings had no main effect on subsequent firm performance. However each of the contingencies, absorbed slack, scope and timing was related to post-downsizing performance and taken together they had quite substantial effects. High-absorbed slack firms that downsized proactively using a broad scope approach were most likely to achieve performance improvements. Conversely, low absorbed slack firms that downsized reactively and focused narrowly on employee reductions were least likely to see performance improve.

From the foregoing literature there is no convergence amongst scholars on the effects of downsizing. This is an important gap that this study identifies. But more importantly studies above have shown downsizing have been necessitated by a number of factors, high absorbed slack, excess physical and human resources, non-viable customers, complexity in organizational processes and systems. There is no evidence of rigorous enquiry from an African or indeed Kenyan context of forces leading to downsizing and the effects on business performance. In particular, the reviewed literature has not given us any manufacturing industry specific approach in the Kenyan context.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research design

The study adopted a cross-sectional survey approach that sought to uncover the common aspects of downsizing amongst Kenyan chemical manufacturing firms and also review their impact on the performance of those firms. The study is of particular interest in view of considerable debate that still abounds on the effects of downsizing in many contexts and the challenges facing the chemical manufacturing industry in Kenya. The survey was conducted in the towns of Nairobi, Thika, Nakuru, Eldoret and Mombasa where most chemical manufacturing firms were located. Both qualitative and quantitative data were collected by means of semi-structured questionnaires. The study was conducted over a period of two months, August and September.

3.2 The Population

The population of interest was all the registered chemical manufacturing firms as per the Kenya Industrial Research Development Institute Directory of Manufacturers (1997) and the Register of Industries, Ministry of Trade and Industry (2003). We used the two directories in order to get maximum overlap. Aosa (1992) argues that by using several directories to construct the sampling frame, one reduces the margin of discrepancy between the sampling frame and population. The combined listing gave a total of 146 chemical manufacturing firms, which constituted our sampling frame.

3.3 Sample and sampling plan

In designing the sampling plan and frame we used the classification of industrial activity adopted by the register of industries and the KIRDI directory. There are seven available categories. In designing a sampling plan, scholars argue that the sample must be of optimum size, neither excessively large nor too small (Kothari, 2004). Dixon and Leach (1981 as quoted in Aosa, 1992) argue that the size of the sample should be determined by adequacy and resource considerations. In this case a sample of 46 firms

was considered optimal given that the researcher had to conduct the interviews alone and in limited time and budget. Using proportionate sampling the sample units were distributed among the categories as shown. Simple random sampling procedure was then used to select the sample units from their industrial categories

Table 3.1: Sampling of Chemical Firms

Industrial Activity	No. Of Firms registered	No. Of firms in sample set
Manufacture of basic industrial chemicals excluding fertilizer	32	10
Pyrethrum extraction	1	1
Wattle bark extraction	2	1
Manufacture of fertilizer and pesticides	20	6
Manufacture of paints, varnishes and lacquers	23	7
Manufacture of soap, perfumes, cosmetics and other preparations	35	11
Manufacture of chemicals n.e.c.	33	10
TOTAL.	146	46

3.4 Data Collection methods

Primary data were collected by means of a semi-structured questionnaire, which was administered mainly through personal interviews. Respondents who were relatively far or inaccessible within other means were reached at reasonably low cost using mail and they would have time to think over the responses. Key statements with guidelines on how to complete the questionnaire sections were provided. The questionnaire had three sections: section a, part I and Part II covering respondent and organization background information, section b covered downsizing experiences and section c covered measurement of performance.

The mail questionnaires were mailed out with an Introductory letter detailing purpose of the research to the managing directors or chief executive officers of the firms. These were chosen

on the basis that they would have the ability to relate aspects of downsizing within the firm with performance of the firm. The mail questionnaires were also followed by telephone to expedite responses

3.5 Data Analysis Techniques

After editing, coding and classification the data was then analyzed using percentages and descriptive statistics among them frequency, means, standard deviations.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter contains analysis and findings from the study with the possible interpretations. The chapter is divided into three sections. The first section analyses the general information of the chemical-manufacturing firms in Kenya. The second section analyses the downsizing strategies that are prevalent within the chemical manufacturing firms in Kenya while the third section analyses how downsizing influences performance of chemical manufacturing firms in Kenya. The findings presented in this chapter are based on data collected from the respondents. Out of the 46 chemical manufacturing firms targeted in the study, 15 responded giving response rate of 33 per cent. For the purpose of showing the relationship among various variables, quantitative analysis was done using descriptive statistics and mean score differences. The findings from the study were presented in tables.

4.2 General information on chemical manufacturing firms

This section generally covered the general information on chemical manufacturing firms that responded in the study. The specific information that is covered includes ownership, size of the firm, and number of employees.

4.2.1 Ownership

This section aimed to determine the ownership structure of the chemical-manufacturing firms in Kenya. The findings are presented in table 1 below.

Table 4.1: Ownership forms

Ownership	Frequency	Percent
Local	11	73
Foreign owned	2	13
Joint venture	2	13
Total	15	100

Source: Research data

Out of the 15 firms interviewed, 73 per cent were local, 13 per cent were foreign and the remaining 13 per cent were joint ventures. From the findings, majority of the chemical firms are locally owned.

4.2.2 Size of the firm

This section aimed to classify the chemical firms in to three sizes, these were small scale, medium and large scale. The details of the findings are presented in table 4.2 below.

Table 4.2: Size of the firms

Size of Firms	Frequency	Percent
Small scale	2	13
Medium scale	4	27
Large scale	9	60
Total	15	100

Source: Research data

Out of the 15 firms interviewed, 60 per cent were large scale, 27 per cent were medium scale and only 13 per cent were small scale. From the findings, it can be concluded that majority of the firms (60%) are large scale.

4.2.3 Number of employees

This variable sought to capture the number of employees in the chemical firms interviewed. The details of the findings are presented in table 4.3 below.

Table 4.3: Number of employees

No. of Employees	Frequency	Percent
1- 50	2	13
51- 100	2	13
101 and above	11	73
Total	15	100

Source: Research data

From the above findings, 73 per cent of the firms interviewed employ more than 100 employees, 13 per cent employ as from 51-100 and the other 13 per cent employ less than 50

employees. It can therefore be concluded that 73 per cent of the firms employ more than 100 employees.

4.3 Prevalent downsizing strategies in chemical manufacturing firms

This research objective sought to establish the prevalent downsizing strategies pursued by chemical manufacturing firms in Kenya. The data was captured using a questionnaire with structured questions. Participating firms were given opportunity to choose downsizing strategies applicable to their firms amongst the three broad types namely retrenchment, down scaling and down scoping. Each of these broad downsizing strategies were further divided into their operational aspects. The findings related to this research objective are discussed here below.

4.3.1 Down sizing strategies

In this section, the study sought to establish the extent to which each of the three down sizing strategies are pursued by the chemical manufacturing firms in Kenya. The findings are detailed in the table below.

Table 4.4: Down sizing strategies

Strategies	Minimum	Maximum	Mean	Std. Deviation
Retrenchment	1	4	2.833	1.329
Downscaling	1	4	1.444	1.014
Down scoping	2	8	2.727	1.849

Source: Research data

In order to operationalize the interpretation of the data, a four point likert scale was adopted. The four-point scale used Very Prevalent, Prevalent, Moderate Prevalence and Low Prevalence. For retrenchment and downscaling, a score of 3.26 to 4.0 has been taken to mean that the down sizing strategy is very prevalent i.e. ($3.26 \leq V.P. \leq 4.0$), a score of 2.6 to 3.25 has been taken to mean Prevalent i.e. ($2.6 \leq P \leq 3.25$), a score of 1.76 to 2.5 taken to mean Moderate Prevalence i.e. ($1.76 \leq M.P \leq 2.5$) and a score of below 1.75 has been taken to mean Low Prevalence i.e. ($1.0 \leq L.P. \leq 1.75$). For down scoping, a score of 6.6 to 8.0 has been taken to mean that the down sizing strategy is very prevalent i.e. ($6.6 \leq V.P. \leq 8.0$), a score of

5.1 to 6.5 has been taken to mean Prevalent i.e. ($5.1 < P < 6.5$), a score of 3.5 to 5.0 taken to mean Moderate Prevalence i.e. ($3.5 \leq M.P. \leq 5.0$) and a score of below 3.5 has been taken to mean Low Prevalence i.e. ($2.0 \leq L.P. \leq 3.4$).

From the above finding, it is evident that the prevalent form of down sizing strategy is retrenchment with a mean score of 2.8833. A standard deviation > 1 implies a significant difference. From the findings, it can be concluded that there was significant variations in the three strategies pursued by the chemical firms in which retrenchment had 1.329, downscaling with 1.014 and down scoping with 1.849.

4.4 Influence of downsizing on performance

This section addressed the second research objective. The research objective was to determine the influence of downsizing on performance of chemical manufacturing firms. The research sought to establish the performance of the firms five years before and after downsizing. The performance was rated in terms of both financial and non-financial measures on a five point likert scale with a score of 1 rated as very poor and 5 rated as very good. Mean scores of the individual financial and non-financial measures of performance were compared and differences in mean scores before and after computed. Details of the research findings are discussed here below.

4.4.1 Differences in financial performance

In this section, the research sought to establish the difference in financial measures of performance before and after downsizing. The details of the findings are presented in the table below.

Table 4.5: Differences in financial performance before and after downsizing

Performance measures	Mean Scores		Difference between Means
	Before	After	
Sales revenue	3.455	3.818	0.364
Sales volume	3.545	3.818	0.273
Net income	2.909	3.364	0.455
Return on investment	2.909	3.364	0.455
Grand Total	12.818	14.364	1.545

Source: Research Data.

From the analysis, it can be deduced that most financial measures showed a relatively improved mean score after downsizing as shown by the grand mean scores. The individual mean score differences were also consistent in this regard. Net income and return on investment showed a moderately higher mean score difference as compared to sales volumes and revenues. This would imply a moderate improvement after downsizing.

4.4.2 Differences in Non-financial performance

In this section, the research sought to establish the difference in Non financial measures of performance before and after downsizing. The details of the findings are presented in the table below

Table 4.6: Differences in non financial performance before and after downsizing

Performance measures	Mean Scores		Difference between Means
	Before	After	
Sales per employee	2.375	3.125	0.750
Customer satisfaction	3.182	3.900	0.718
Quality performance	3.909	4.400	0.491
Delivery performance	3.182	4.200	1.018
Employee turnover	2.636	3.200	0.564
Grand Total	15.284	18.825	3.541

Source: Research Data

From the analysis, it can be deduced that most non-financial measures showed a relatively improved mean score on the scale as shown by the grand mean scores. The individual mean score differences were also consistent in this regard. Delivery performance and sales per employee showed a high mean score difference while quality performance and employee turnover showed only a moderately high mean score difference.

CHAPTER FIVE: CONCLUSION

5.1 Introduction

This chapter discusses the findings of the study and interprets the results in line with the research question and research objectives. The salient conclusions arising from the study are detailed and recommendations given. Finally, limitations that the study faced and areas for further research are discussed ending with policy and practical implications of the findings of the study

5.2 Summary, Discussions and Conclusions

The study set out to answer the question, what strategies of downsizing are prevalent in the chemical manufacturing industry and their effects on performance? The first objective sought to determine which among the downsizing strategies was most prevalent amongst chemical manufacturing firms in Kenya. Our results show that among the forms of downsizing practiced by chemical manufacturing firms in Kenya, retrenchment is the most prevalent form. Both downscaling and down scoping had low prevalence. We note that retrenchment takes various forms, among them centralization of production, specialization of production and realignment of managerial responsibilities but there is no incidence of reduction of human resources. This compares well with other studies. Farrell and Mavondo (2005) in their study of manufacturing organizations in Australia found that downsizing that drives redesign (reducing workforce size) has a negative effect on business performance while redesign that drives downsizing (restructuring the organization, redesigning tasks) had a positive effect on business performance. Love and Nohria (2005) do not restrict themselves to personnel only, rather even excess resources such as retained earnings, excess inventory and working capital. They argue that high-absorbed slack firms that downsized proactively using a broad scope approach were most likely to achieve performance improvements. Conversely, low absorbed slack firms that downsized reactively and focused narrowly on employee reductions were least likely to see performance improve.

The second objective sought to establish whether downsizing affects firm performance. We examined firm performance before and after downsizing. This revealed interesting results. Financial measures of performance namely: sales revenues, sales volumes and return on

investment all reported improvement to a different measure. Net income and return on investment improved more after downsizing, while sales revenues and volumes showed slight improvement. This would appear to suggest that there was efficiency that accrued to these firms as a result of downsizing. In terms of non-financial measures, there was a strong positive improvement in delivery performance and sales per employee after downsizing. Customer satisfaction also showed high improvement though to a lesser extent, while quality and employee turnover performance improved to a moderate extent. The results again support earlier related studies. Love and Nohria (2005) in their study of large industrial American firms found that overall downsizing had no main effect on subsequent firm performance but the contingencies in which downsizing was done, like absorbed slack, scope and timing were related to post-downsizing performance and taken together had quite substantial effects.

From the foregoing our results support the intuitive proposition that downsizing is likely to lead to improved performance. The results also show clearly that the chemical manufacturing firms in Kenya practice more than one form of downsizing and retrenchment is most significant. This is reasonable given that we found out that productivity in the sector was on the decline and so firms are practicing retrenchment to improve on this aspect. Although the results show a positive correlation between downsizing and firm performance care should be taken in interpreting them as there are may be other control variables that affect performance that need to be controlled for.

5.3. Limitations of the study

As with all studies, this study has limitations, which we will now address. Firstly the study collected data from single informants only. The use of multiple informants would have been useful especially with regard to quantitative data. Most managing directors or senior managers were not able to provide their quantitative performance over the years and so there was difficulty in obtaining this form of data. Other scholars observe that objective measures of performance (quantitative data) while preferable are difficult to obtain. However subjective measures (qualitative data) correlate highly with objective measures and so this limitation should not diminish confidence in the study findings (Dess and Robinson, 1984 as quoted in Farrell and Mavondo, 2005). Time was also a constraint as this study was conducted under extreme time pressure and this limited the number of firms sampled.

5.4 Recommendations for further research

Future research should consider the effects on business performance of firms shifting from one downsizing strategy to the other and as strategy is continuous we suggest a longitudinal approach to capture such data. The study looked at only the broad level strategies of downsizing. There however are various tactics in each of the downsizing strategies and we would suggest that future research would benefit by enquiring on how these tactics themselves impact on firm performance.

Also future studies should consider inclusion of control variables that may also affect performance so that one can have greater confidence in the findings concerning the relationship between downsizing and firm performance.

5.5 Implications for policy and practice

Finally, the study has important implications for managerial practice. Firstly, we recognize that downsizing that is narrow scoped and directed to reduction of personnel is not likely to yield good performance. One of the firms we encountered lost market share as result of loss of key personnel through a poorly designed downsizing process that narrowly focused on workforce reduction. But downsizing that is directed at systemic improvement of a firm's activities and resources (broad scope) ultimately leads to better results. Secondly, managers should therefore leverage other aspects including simplification of organizational systems and processes to improve firm performance rather than restrict themselves to a narrow scope only. Downsizing is therefore inevitable in present business circumstances but the degree of its success is contingent on how well it is aligned with overall organizational strategic direction.

REFERENCES

- Aosa, E. (1992). "An empirical investigation of aspects of strategy formulation and implementation within large, private manufacturing companies in Kenya". Unpublished doctoral thesis, University of Strathclyde.
- Cefic (2004) Horizon 2015: Perspectives for the European chemical industry. Retrieved August 17, 2006 from <http://www.cefic.org/files/Publications/Scenarios2.pdf>.
- Dewitt, R. (1998). "Firm, industry, and strategy influences on choice of downsizing approach." *Strategic Management Journal*, 19, 59-79.
- Farrell, A. M., & Mavondo, F. (2005). "The effect of downsizing-redesign strategies on business performance: Evidence from Australia". *Asia Pacific Journal of Human Resources*, 43, (1), 98-116.
- Horngren, T. C., Datar, M.S., & Foster, G. (2003). *Cost accounting: A managerial emphasis (11th ed.)*. New Delhi: Prentice-Hall of India.
- Iluka, G. C. (2003). "A survey of the practices of stall downsizing among the major oil firms in Kenya". Unpublished MBA thesis, University of Nairobi.
- Johnson, G., & Scholes, K. (2004). *Exploring corporate strategy (6th ed.)*. New Delhi: Prentice-Hall of India.
- Keeth, F. (2006) Generation of the dragon: Challenges and opportunities in china for the chemicals industry. Retrieved August 17, 2006 from <http://www.shellchemicals.com/news/1,1098,148,00.html>.
- KAM. (2006). Kenya's Manufacturing Industry: A survey of the sector 2005, Kenya Association of Manufacturers, Nairobi.
- Kothari, C.R. (2004). *Research Methodology: Methods and Techniques (2nd ed.)*. New Delhi: New Age International (P) Ltd.
- Liveries, A. (2002). Structural Changes in the chemical industry: Impact on the distributor. Retrieved August 17, 2006 from <http://news.dow.com/speeches/20020603a.htm>.
- Love, E.G., & Nohria, N. (2005). "Reducing Slack. The performance consequences of downsizing by large industrial firms, 1977-93". *Strategic Management Journal*, 26, 1087-1108.

- Minja, J. E. (1995). "A survey of performance measurement in divisionalized companies in Kenya" Unpublished MBA thesis, University of Nairobi.
- Mwangi, E.N.K. (2002) "A survey of the factors that influence the attitudes of survivors of downsizing towards management and job security in the banking sector". Unpublished MBA thesis, University of Nairobi.
- Ndegwa, M.G.M (2003) "A survey on the application of promotion mix in the agrochemical industry in Kenya". Unpublished MBA thesis, University of Nairobi.

APPENDICES

Appendix 1: Letter of introduction

August 2006

Dear Respondent

REF: REQUEST FOR RESEARCH DATA

I am a Master of Business Administration (MBA) student at the University of Nairobi. I am required to submit as part of my course work assessment a research project report on "A survey of downsizing strategies and performance of chemical firms in Kenya". To achieve this, your organization is one of those selected for the study. I kindly request you to fill the attached questionnaire to generate data required for this study. This information will be used purely for academic purpose and your name will not be mentioned in the report. Findings of the study, shall upon request, be availed to you

Your assistance and cooperation will be highly appreciated.

Thank you in advance.

Mwangi Njeke.
MBA Student- Researcher
Nairobi

Dr. Martin Ogutu
Supervisor
University of Nairobi

Appendix 2: Questionnaire

For purposes of academic analysis only, we are interested in the level and type of downsizing activities that have taken place in your firm in the last ten years. Please answer the following questions by circling the appropriate box or by giving the necessary details in the spaces provided. Your answers will remain anonymous and strictly confidential.

SECTION A

PART 1: RESPONDENT PROFILE/PERSONAL DATA

1. What is your current job title?.....
2. Please state your academic qualifications and/or professional qualifications attained.....
3. Please describe your work experience over the last five (5) years

Role/Position	Organization

PART 2: ORGANIZATION DATA

In this section, please circle the item that provides the most accurate or correct answer to the question asked

4. Name of organization _____

5 (a). Which of the following forms of Ownership most appropriately describe your company?

- i. Local
- ii. Foreign owned
- iii. Joint venture

(b) For each of the above what are proportions of ownership?

- i. Largely foreign owned (51 percent or more)
- ii. Largely locally owned (51 percent or more)

iii. Equally owned (foreign & local) (50/50percent)

iv. Other please specify _____

6. Which of the following best describes the geographical scope of your firm

i. National (Operating within one country)

ii. Regional (Operating within a regional bloc)

iii. International (Operates in two or more countries apart from home country)

7. How many years has your firm been operational in Kenya?

i. Less than 5 years

ii. 5- 10 years

iii. 11-15 years

iv. Over 15 years

8. How would you classify the size of your company?

i. Small scale

ii. Medium scale

iii. Large scale

9. What is the number of employees in your company?

i. 1- 50

ii. 51-100

iii. 101-150

iv. Over 150

10. Among the following chemicals sectors, which one most appropriately describes your area of specialization?

i. Manufacture of basic industrial chemicals

ii. Pyrethrum extraction

iii. Wattle extraction

iv. Manufacture of fertilizers and pesticides

v. Manufacture of paints, varnishes and lacquers

vi. Manufacture of soaps, perfumes, cosmetics and other preparations

vii. Other chemicals n.e.c

viii. Other please specify _____

SECTION B: ASPECTS OF DOWNSIZING.

In this section, please circle the item that provides the most accurate or correct answer to the question asked

11. Please describe which of the following aspects have occurred to your company over the last ten (10) years.

a). Retrenchment namely:

- i. Centralization of production
- ii. Specialization of production
- ii. Alignment of managerial responsibilities
- iii. Maintaining firm's scope and output
- iv. All the above

b). Downscaling namely:

- i. Permanent cuts in human resources
- ii. Permanent cuts in physical resources
- iii. Maintaining product line and market
- iv. All the above

c). Downscoping namely:

- i. Reduction in physical and human resources
- ii. Simplification of organization systems and processes
- iii. Product line pruning

(This is sale of distribution or marketing rights and outright product elimination)

iv. Market withdrawal,

(Entails elimination of people and resources in non-viable geographical locations)

v. Customer withdrawal

(Dropping price sensitive & small customers who compete in non-profitable markets)

- vi. Elimination of upstream inputs production
- vii. Elimination of downstream retail and distribution facilities.
- viii. All the above

12. What would you say were the reasons for downsizing?

- i. Economic
- ii. Excess human and physical resources
- iii. Direction by Board of Directors
- iv. Others please specify _____

SECTION C: MEASUREMENT OF PERFORMANCE.

In this section, please circle the item that provides the most accurate or correct answer to the question asked or fill out in the spaces provided

13. Does your firm have a performance measurement policy (Yes) (No)?

14. If the answer to above is NO, please state why.....

15. To what extent would you describe the following as performance measurement objectives in your organization before and after downsizing?

- 1= Not at all
- 2= to a very small extent
- 3= to some extent
- 4= to a large extent
- 5= to a very large extent

a.) Non-Financial measures

i	Sales per employee	[1]	[2]	[3]	[4]	[5]
ii	Customer satisfaction	[1]	[2]	[3]	[4]	[5]
iii	Quality Performance	[1]	[2]	[3]	[4]	[5]
iv	Delivery performance	[1]	[2]	[3]	[4]	[5]
v	Employee turnover	[1]	[2]	[3]	[4]	[5]
	Other please specify _____					

b.) Financial measures

i.	Sales Revenues	[1]	[2]	[3]	[4]	[5]
ii.	Sales volumes	[1]	[2]	[3]	[4]	[5]
iii.	Net income	[1]	[2]	[3]	[4]	[5]
iv.	Return on Investment	[1]	[2]	[3]	[4]	[5]

16. Which one below appropriately describes your company's performance five years before and after the downsizing effort?

- 5= Very good
- 4= Good
- 3= Neutral
- 2= Poor
- 1= Very Poor

a). Before Downsizing:
Financial Measures

i.	Sales Revenues	[1]	[2]	[3]	[4]	[5]
ii.	Sales volumes	[1]	[2]	[3]	[4]	[5]
iii.	Net Income	[1]	[2]	[3]	[4]	[5]
iv.	Return on Investment	[1]	[2]	[3]	[4]	[5]

b). Before Downsizing:
Non-financial measures

i.	Sales per employee	[1]	[2]	[3]	[4]	[5]
ii.	Customer satisfaction	[1]	[2]	[3]	[4]	[5]
iii.	Quality Performance	[1]	[2]	[3]	[4]	[5]
iv.	Delivery performance	[1]	[2]	[3]	[4]	[5]
v.	Employee turnover	[1]	[2]	[3]	[4]	[5]

c). After Downsizing:
Financial Measures

i.	Sales Revenues	[1]	[2]	[3]	[4]	[5]
ii.	Sales volumes	[1]	[2]	[3]	[4]	[5]
iii.	Net Income	[1]	[2]	[3]	[4]	[5]
iv.	Return on Investment	[1]	[2]	[3]	[4]	[5]

d). After Downsizing
Non-financial measures

i.	Sales per employee	[1]	[2]	[3]	[4]	[5]
ii.	Customer satisfaction	[1]	[2]	[3]	[4]	[5]
iii.	Quality Performance	[1]	[2]	[3]	[4]	[5]
iv.	Delivery performance	[1]	[2]	[3]	[4]	[5]
v.	Employee turnover	[1]	[2]	[3]	[4]	[5]

17. Please indicate the profile of your performance five years before and after downsizing

a). Before Downsizing Covers the years 1997-2001

Years/Measure Kshs	1997	1998	1999	2000	2001
Sales Revenues					
Sales Volumes					
Net Income					
Return on Investment					

b) After Downsizing covers the years 2002-2006

Years/Measure Kshs	2002	2003	2004	2005	2006
Sales Revenues					
Sales Volumes					
Net Income					
Return on Investment					

SECTION D:

I thank you very much for your time in completing this questionnaire. Please add any further comments on the subject of downsizing and performance that you may have that you feel would be useful to the study.

.....

.....

THANK YOU FOR YOUR CO-OPERATION

Appendix 3: List of Sampled Chemical Manufacturing Firms by Industrial Activity

MANUFACTURE OF BASIC INDUSTRIAL CHEMICALS EXCEPT FERTILIZERS

- 1 B O C KENYA LTD
- 2 CARBACID (CO₂) LTD
- 3 DHRUPA ENTERPRISES LTD
- 4 EASTERN CHEMICAL INDUST LTD
- 5 HENKEL CHEMICALS (EA) LTD
- 6 KEL CHEMICALS LIMITED
- 7 LABCHEM LTD
- 8 METOXIDE AFRICA LTD
- 9 NOVA CHEMICALS (NCL) LTD
- 10 SYNRESINS LTD

PYRETHRUM EXTRACTION

- 1 PYRETHRUM BOARD OF KENYA

WATTLE BARK EXTRACTION

- 1 E A TANNING EXTRACT CO LTD

MANUFACTURE OF FERTILIZERS AND PESTICIDES

- 1 BAYER (EA) LTD
- 2 CONSOLIDATED CHEMICALS LTD
- 3 K.E.V.E.VA.P.I.
- 4 KENYA RENEWABLE CHEMICALS LTD
- 5 MURPHY CHEMICALS (EA) LTD
- 6 TWIGA CHEMICAL INDUSTRIES LTD

MANUFACTURE OF PAINTS, VARNISHES AND LACQUERS

- 1 BASCO PAINTS K LTD
- 2 CROWN PAINTS & BUILDING PRODUCTS
- 3 GALAXY PAINTS (K) LTD
- 4 KEN NAT INK & CHEMICALS LTD
- 5 NASIB INDUSTRIES PRODUCTS LTD
- 6 SAIDOLIN PAINTS (EA) LTD
- 7 SPECTRA CHEMICALS LTD

MANUFACTURE OF SOAP, PERFUMES, COSMETICS AND OTHER PREPARATIONS

- 1 BIDCO OIL REFINERIES
- 2 COLGATE PALMOLIVE (EA) LTD

3 CUSSONS & CO LTD
4 ELEPHANT SOAP INDUSTRIES
5 FEDERAL DISTRIBUTORS
6 IACO INDUSTRIES LTD
7 INTERCONSUMER PRODUCTS LIMITED
8 KAPA OIL REFINERIES LTD
9 MOMBASA SOAP & OIL MANUFACTURERS
10 OASIS LTD
11 SUDI CHEMICAL INDUSTRIES LTD

OTHER CHEMICALS NEC

1 ALPHA INKS LTD
2 BIDS MATCH LTD
3 DIVERSEY LEVEL (E A) LTD
4 GRAPHIC [INDUSTRIAL INKS (K)
5 JOHNSONS WAX (E A) LTD
6 KENYA ADHESIVES PRODUCTS LTD
7 KILAGRAMS LTD
8 ORBIT INDUSTRIES LTD
9 RECKITT BENCKISER
10 SERACOATINGS

Source: Kenya Directory of Manufacturing Industries, 3rd Edition (1997) and Register of Industries (2003)