FACTORS INFLUENCING THE SUCCESS OF NEW DETERGENTS IN KENYA.

BY

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DECLARATION

This management project is my original work and has not been presented for a degree in any other university.

SIGNED: ---------- DATE: 10/11/1999

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

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DEDICATION

To my elder brother, Ayub, who sacrificed a lot, to assist me financially, during my high school days. I would not have come this far without such valuable assistance.

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TABLE OF CONTENTS PAGE

List of Abbreviations

EAI	East African Industries Ltd
GDP	Gross Domestic Product
KIRDI	Kenya Industrial Research Development Institute
NP	New Product
NPD	New Product Development
P&G	Proctor and Gamble Company Ltd
R&D	Research and Development
SAPS	Structural Adjustment Programmes
UK	United Kingdom
US	United States of America

LIST OF TABLES

Liberalisation of the economy in Kenya has lead to stiff competition and the detergent-manufacturing firms seem to have been most affected. As a result most of these firms have introduced new products as a way of coping with competition. However, the available literature exhibits deficiencies on the factors influencing the success of new detergents in Kenya. Hence this study aimed at answering the following questions:

i) What factors determine the success of new detergents in Kenya?

ii) What is the relative importance of each success factor?

The purpose was two-fold: To identify the success factors, and determine the critical ones.

To achieve the stated objectives, a census study was carried out among firms manufacturing detergents in Nairobi. Data was collected by use of a structured questionnaire that was dropped and later picked from the marketing manager or his her equivalent.

Factor analysis was used to identify the factors as well as to determine their order of importance. The results showed that the following were the main factors influencing the success of new detergents in Kenya:

i) The firm's marketing knowledge and resources.

ii) Product uniqueness and marketing synergy.

iii) Price competitiveness.

Based on the findings, it was recommended that the firm's marketing knowledge and resources, being the most critical factor for success, should be put into consideration before introducing any new detergent.

1.0 CHAPTER 1

INTRODUCTION

1.1 Background

During the early years of independence, Kenya achieved commendable economic growth compared to other developing countries. Appendix 3 (page42) shows that between 1964 and 1973, Gross Domestic Product (GDP) grew on average by 6.6 per cent per year. The rapid growth rate during the decade resulted mainly from successful rural development policies that led to increased agricultural output, import substitution industrialisation strategy supported by access to the East African Community markets and good macroeconomic management.

On a sectoral basis, it can be seen from Table 1(Appendix 3) that between 1964 and 1973, the manufacturing sector registered an average growth rate of 9.1 per cent and agriculture 4.6 per cent per year. Between 1980 to 1989 and 1990 to 1995, the annual average growth rates for manufacturing were 4.8 per cent and 3.0 per cent, respectively, and that for agriculture were 3.3 per cent and 0.4 per cent respectively. The two major sectors (that is, Agricultural and manufacturing) have recorded declining performance over the last three decades even though manufacturing appears to have been more resilient.

By mid 1980's, it had become clear that structural constraints had emerged within the economy that were preventing it from achieving the high economic growth rates of the 1960's and early 1970's. This led the government to adopt Structural Adjustment Programmes (SAPs) through the publication of Sessional Paper No.1 of 1986 on *Economic Management for Renewed Growth.* These reforms included price decontrols, removal of all import

licensing and foreign exchange controls, and reforms of investment incentives, public enterprise guidelines, and the financial system.

The reform process or liberalisation discussed above has led to stiff competition. In order to survive in this competitive environment, firms have adopted various strategic options. These options include new product development, mergers and alliances, retrenchment and so on. Each of these options has their own advantages and disadvantages. For instance a merger with a larger and stronger company can enable a company secure new capital for continued growth. This was the case recently (1997) when Coopers and Lybrand merged with Price Waterhouse. However, it might mean one firm loosing its identity.

In Sessional Paper No. 2 of 1996 on *Industrial Transformation to the Year 2020*, the government identifies industrialisation as one of the strategies of achieving rapid economic development. One way of attaining this ambition is through developing successful new products. Hence, this study will explore the factors to be addressed by those firms that opt for the New Product Development (NPD) route as a means of coping with competition.

Researchers in Kenya have not been keen to investigate the factors determining the success of new products. The only research on new products in Kenya, this author came across was on factors influencing innovations (Nzuki 1991). Despite the lack of literature on new products in Kenya, many new detergents have been introduced in the last ten years as is witnessed in the supermarkets, where one is amazed at the number of new brands. These brands include Omo with powerfoam plus, Ariel, Ace Bleach, Jik colours, etc. Many new companies have also come up over the last decade offering new detergents that have led to increased competition with the "old guards" (those who have always been in the market).

Some of those detergents have been successful such as Ace bleach, Omo with powerfoam plus, jik colours, Ushindi bar soap, etc. However some of them seems to be performing dismally such as Toss while mama safi powder detergent failed totally and was withdrawn from the market.

1.2 The Research Problem.

As discussed in the background, liberalisation of the economy has led to stiff competition. One way of coping with this competition is through developing new products that will be successful. However, firms that decide to follow this route seem not to be aware of the critical factors that do influence the success of new products. This is because developments in new products have tended to reflect business circumstances in developed country contexts especially in North America and Europe. Little is known about factors determining the success of new products in developing countries such as Kenya. Socio-cultural, economic, political-legal, infra-structural and technological factors in Kenya are different from those in developed economies (Aosa, 1992 p.90-106). Hence the variables influencing the success of new products in developed world and their relative importance may not be similar to those in Kenya.

Moreover Booz and colleagues (1982) observed that new product management is a delicate and subtle process, not subject to broad generalisations or universal guidelines. Johne and Snelson (1990) study indicate important differences in the way successful product developers in the UK and US manage change. Jacobs and Herbig (1998) also found out that NPD process in Japan and USA differs. Thus it would be more appropriate to study the success factors for a specific product type in a specific country.

The scenario from the literature has been a list of multitude of factors influencing successful introductions of new products. The relative importance of each factor varies, however, by industry and product type and sometimes between countries. Given the limited investment resources in Kenya, some companies cannot afford to put into consideration all these factors. They need to concentrate only on the critical factors determining the success of new products. This can be achieved by a policy of prioritisation, hence this background gives rise to the need to critically analyse the factors influencing the success of a specific product type (i.e. detergents) and in essence the determining factors with a view to prioritise them. This study therefore seeks to address the following issues: What factors determine the success of new detergents in Kenya? What is the relative importance of each factor?

1.3 Objectives of the Study.

The objectives of this study were:

1. To identify the factors that influence the success of new detergents in Kenya.
2. To determine the relative importance of each success factor.

1.4 Importance of the Study.

The results of this study may be useful to: -

1. investors in new products as it may provide an empirical base to new products screening models in developing countries such as Kenya.
2. the management as one of the important reasons for investigating the success is the potential for developing prescriptive guides for the new products' success. Many of the variables, which might separate the 'winners' from the 'losers', are within the control of

the firm. Knowledge of what these variables are and their relative importance would lead to corrective action by improving the way a firm develops and launches new products.

3. the scholars and researchers who might have an interest in developing the findings further or taking other related field on product development and as a reference source.
4. the researcher who would have gained useful skill and experience in carrying out the research.

1.5 Definition of Terms.

Detergents: A cleansing agent, anything that cleanses. Now especially of various synthetic solids or liquids which are soluble in or miscible with water, which resemble soap in their cleansing properties, but which differ from it in not combining with the salts present especially in hard water; also any of the various oil-soluble substances which have the property of holding dirt in suspension in lubricating oils; so detergent oil, an oil containing such a substance. (Oxford English Dictionary, 1991:546).

New Detergent: This is defined as an existing detergent, detergent improvements, detergent modification and new brands that a firm has developed through its own R&D efforts in the last decade.

Success: Success is defined from the point of view of the firm and in terms of profitability, that is, the degree to which a product's profitability exceeded the minimum acceptable profitability for this type of product or investment, regardless of the way a firm measures profitability.

2.0 CHAPTER 2

LITERATURE R EVIEW

What is a new product? Why do companies need new products? This chapter discusses the foregoing issues before reviewing NPD process and factors that influence the success of new products. This is followed by a review of the Kenyan situation. Finally, a critique and synthesis of the state of the art in new product success factors is presented.

2.1 What is a new product?

There are different definitions of new products as provided by different researchers and authors.

The Consulting firm Booz Allen and Hamilton has identified six categories of new products in terms of their newness to the company and to the market place.

i) New-to the world products: New products that create an entirely new market.

ii) New product lines: New products that allow a company to enter an establishment market for the first time.

iii) Additions to existing product lines: New products that supplement a company's established product (Package sizes, flavours and so on).

iv) Improvements and revisions of existing products: New products that provide improved performance or greater perceived value and replace existing products.

v) Repositioning Existing products that are targeted to new markets or markets segments.

vi) Cost reductions: New products that provide similar performance at lower cost.

Only 10 percent of all new products are truly innovative and new to the world (Kotler, 1997). These products involve the greatest cost and risk because they are new to both the company and market place. Thus most company new activity-product activity is devoted to improving existing products.

Wizenberg (1986) defines new products as an addition the consumer product line of a manufacturer, which is either a new brand. Kotler (1996:312) defines new products as original products, product improvements, product modifications and new brands that the firm develops through its own research and development efforts. This is the definition adopted throughout this study because of its broadness. However, this definition has a built-in problem. A new brand of East Africa Industries (EAI) detergents such as OMO with powerfoam plus and a new flavour of beverages such as TreeTop, were both new products, yet there is a multi- million-shilling differential in their sales and profit impact.

2. 2 Need for developing new products

To be successful a company needs to be able to meet the ever-changing needs and tastes of the market. This entails developing products to meet these changing needs.

New product development is the basis for maintaining profitability and market share in competitive markets. Sooner or later, most products are pre-empted by other products or else

evolve into less profitable ones due to increased competitive pricing and sales promotion pressures. New products are crucial because they can contribute the additional profits needed to sustain and increase the company growth as the profit margin curve of existing products decline.

In America, it is estimates that over 50 per cent of the profits of all US companies come from products that did not exist ten years ago (Fortune, Dec 9, 1985, Pp 106 - 112)

2.3 New Product Development Process

To ensure success in producing the right product at the right time at the right price entails adhering to a very rigorous process involving eight steps discussed below(Kotler,1997).

2. 3.1 Idea Generation

This is the first stage of new product development process. This is the systematic search for new products ideas. The company must first get ideas about the new product from various sources.

There are several sources of product ideas. The first important source of product ideas is from within, that is, internal sources. One study found that more than 55% of all new product ideas came from within the company. Toyota claims that employees submit two million ideas annually about 35 suggestions per person and that more than 85% of them are implemented (Lawton & Parasuvaman, 1980).

Another important source of new product ideas is the customers. The ideas can be obtained from them through direct customer survey, focused group discussion, suggestion systems and letters received from customers either complaining about the performance of existing products and/or suggesting ways of improving current products. Almost 28 percent of new products come from watching and listening to customers (Business Week, February, 1983).

Competitors are occasionally a good source of new product ideas. About 27 percent of new product ideas come from analysing competitors products. A company can watch competitors advertisements and other communications it get clues about its new products or can buy some of these products, study them and find out how it can improve on them (Mitchell, 1986).

Distributors, suppliers and others who are close to the market and can pass along information about consumer problems and new product possibilities.

Other sources of new ideas include consulting firms, research centres, university, commercial laboratories and so forth.

2.3.2 Idea Screening

The idea generation stage may yield hundreds, if not thousands of ideas. However, some of these ideas may be worthless. This stage involves screening new product ideas in order to spot good ideas and drop poor ones as soon as possible. The various ideas are screened by a screening committee to come up with the best ideas as to the cost, target market, rate of return and competition found by each of the product proposed.

2.3.3 Concept Development and Testing

The proposed product is then developed into a concept (that is, a detailed version of the idea stated in meaningful consumer terms), then the concepts are tested with a group of target consumers. This target group of consumers can be used to forecast the estimated population of consumers and expected sales volume.

2.3.4 Marketing Strategy Development

The marketing strategy statement consists of three parts: The first part describes the target market, the planned product positioning, the sales, market share and profit goals for the first few years. The second part outlines the product's planned price, distribution and marketing budget for the first year. The third part describes the long run sales profit, goals and marketing mix strategy.

2.3.5 Business Analysis

This step involves a review of the product's sales, costs and profit projections to see if they meet the company's objectives. If they do, the product moves to the next stage, that is development.

2.3.6 Product Development

At this stage, the real physical product is developed, as so far it has existed only as a word description or a drawing. A prototype of product is developed and passed over from the

Research and Development department to manufacturing department, where the engineers try to find out the best way to produce the product.

2.3.7 Market Testing

This is the stage at which product and marketing programs are introduced into more realistic market setting. It enables the company to test the product in real market situations and also allows the company to test it's entire marketing program for the product- it's positioning strategy, advertising, distribution, pricing and packaging and budget levels. Test marketing may be done in any of the three ways, depending on the type of product and market situation.

i) Standard Test Market: Test the new product in situations like those it would face in the full-scale launch. The product is marketed in several provinces or towns on a full-scale advertising and promotion campaign is made in these areas.

ii) Controlled Test Market: The company specifies a number of stores where it markets the product through controlled shelf location, amount of space, displays and point of purchase promotion and pricing according to specified plans.

iii) Simulated Test Markets: Consumers are given several products alongside the new product, then they are given some money and invited into a real or laboratory store where they may keep the money or buy the items. The company notes how many consumers buy the new product and competing brands. The consumers are then asked their reasons for buying or not buying the product and the company improves on this, if it works.

2.4.8 Commercialization

Once a product has successfully gone through test marketing, the firm may now go on to commercialise the product. The company must make a decision on when to start production,

where to produce it (whether in one or several locations), to whom the product is to be produced (the best prospect groups), how to introduce the product into the market.

2.4 New Products: Success/Failure Rates.

A Company that decides to follow the new product development route will have to contend with the high failure rate. Practitioners and academics alike usually agree that many newly developed products do not become a success and that the failure rate is too high. Notwithstanding this agreement, the exact percentage of new products that fail has been the subject of discussion for many years. A variety of studies have been conducted, but the results vary widely. The fact that others have cited percentages mentioned by private authors as private opinions as facts only added to the confusion.

Extensive research conducted among 103 Canadian Firms showed that on average, 19 percent of new industrial products failed after being introduced into the market, while another 22% of the projects were killed before launch (Cooper 1982). Thus large amounts of money are spent on unsuccessful projects. According to Booz, Allan and Hamilton (1982), in general 50% of new product expenditure goes on projects that do not succeed. Kotler (1997) puts the failure rate at 80%.

In an attempt to determine the new product failure rate in America by evaluating the most reliable and most recent studies, Crawford (1979) compared 32 sources which actually were reporting on a study or which were cited as doing so. Initially he discovered that the cited failure rates varied between 15% and 99%, but closer investigation led him to drop twenty-five of these sources for varying reasons. Based on analysis of the remaining seven studies, he came to the conclusion that "the best estimate from available studies is that around 35% of

new products failed"(Crawford, 1979, p. 12). Eight years later he updated the study by reviewing another seven studies published after 1979, which resulted in confirmation of the results obtained earlier (although the failure rate for industrial products seemed to be somewhat lower than the rate for consumer products)(Crawford, 1987).

Although there is no consensus on the exact rate, it would be tough to argue that the current new products failure rates are satisfactory.

2.5 New Product success factors.

Recognition of the importance of new product development to corporate and economic prosperity coupled with high risk of failure in such endeavours has triggered considerable research interest in the dynamics of new product development (NPD). The research, from a variety of domains including marketing, management, engineering, R&D, and economics, has been widely reported in a number of journals and has created a large and complex body of literature relating to the various elements involved in the NP.

Product uniqueness and superiority has been identified by researchers as a factor contributing to the success of new products. The literature refers to the new product strategies that emphasise the search for differential advantage, through the product itself (Cooper 1984). Specific reference is made to technical superiority (Myers and Marquis 1969), product quality (Cooper 1979, Link 1987), product uniqueness and novelty (cooper 1979), product attractiveness (Link 1987) and high performance to cost ratio (maidique and Zirger 1984).

Another consideration identified in the NP literature that leads to successful NP is synergy, that is, the relationship between the NPD and existing activities, known as synergy with existing activities (Cooper 1979, Cooper and Kleinschmidt 1987; Mardique and Zirger 1984).

Some research attention has been focused on the top management support in the eventual success of NPD. While Madique and Zirger (1984) found new product successes to be characterised by a high level of top management support, Cooper and Kleinsmidt (1987) found less proof of top management influence, discovering new product failure to have as much top management support as success. Among the "top management issues" covered by the literature are managerial orientation, involvement of top management and top management roles.

Organisational structure and management style has also been identified in the literature as having an influence in the success of NPD. Bentley (1990) present the findings of an empirical study based on the hypothesis that the structure and style adopted by a company are closely related to its ability to connect with its market and since proximity to the market is a determinant of new product success, the organisational structure and style are important issues.

A number of studies have identified the efficient execution of the development process, or particular activities within the development process, as critical to new product success (Cooper 1979, Cooper and Kleinshmidt 1987, Maidique and Zirger 1984). In 1986, Cooper and Kleinsmidt found that there is a greater probability of commercial success if all of the process activities were completed. This finding was confirmed in another study replicating the investigation in Australian companies (Dwyer and Mellor 1991).

Maidique and Zirger (1984) identified functional co-ordination as a critical factor contributing to the development of successful new products. While some of the earliest researchers in NPD (Mayers and Marquis 1969) found market-pull products more likely to succeed, Cooper (1979) found technology-push and market –pull products equally likely to be commercially successful.

The role of information in the NPD is critical to the success of new products (Cooper and Kleinsmidt 1987). The gathering and disseminating of information and making of decisions based upon this information are extremely important.

2.6 The Kenyan Situation

Researchers in Kenya have not been keen to investigate the factors determining the success of new products (Nzuki, 1991). The only research on new products in Kenya, this author came across was on factors influencing innovations (Nzuki 1991).Kenyan firms have been active in producing new products (Nzuki 1991).

Table 2: Product innovation (new product introduction).

Year	No. of mfg. Firms.	No. of new products.
1981	16	10
1982	8	16
1983	18	26
1984	22	50
1985	19	63
1986	17	55
1987	16	70
1988	9	60
Total	125	350

Source: Nzuki (1991:03).

It can be seen from the table above that some firms introduced more than two products in a year while others introduced several products. This shows that new product introduction gained importance despite the fact that an average firm introduces only two to three products in a year (Crawford, 1987)

Despite the lack of literature on new products in Kenya, many new detergents have been introduced in the last ten years as is witnessed in the supermarkets, where one is amazed at the number of new brands. These brands include Omo with powerfoam plus, Ariel, Ace Bleach, Jik colours, etc. Many new companies have also come up over the last decade offering new detergents that have led to increased competition with the "old guards" (those who have always been in the market).

Some of those detergents have been successful such as Ace bleach, Omo with powerfoam plus, jik colours, Ushindi bar soap while others have performed dismally such as Toss, Panga, mama safi powder detergent and so on.

Why some of these detergents succeed while others fail in the same environment are some of the issues researchers in Kenya are yet to address.

This review of the literature does not claim to be exhaustive, but it gives a flavour of the variety of issues and discipline central to furthering the understanding of the processes of innovation and NPD. Disciplines such as engineering, design, marketing, organisational behaviour, human resources management, economics, psychology and operations management all have important potential inputs to the development of NPD, given the range of issues outlined in the preceding sections: Organisational roles, managerial style, market

information, organisational mechanisms, communication and information use, interfunctional integration, decision making processes, strategy and so on.

However, comparison and evaluation of the studies discussed in the preceding section is difficult due to, mainly different research methods and definitions of key concepts.

The results of any kind of research are obviously very dependent on the research method used. Crawford (1979) mentions four different research methods.

a) One of the most common is to investigate success/failure pairs. Similar new products, one a success and the other a failure, are compared. The factors influencing success can be determined by making statistical analyses of large samples. Cooper (1979) and Maidique and Zirger (1984) have used this method among others.

b) A second method is to analyse executive opinion. The persons involved in the development of specific new products are asked what in their opinion, were the most important reasons for success or failure. A disadvantage is that, except for large samples, the information obtained is often anecdotal and subjective. The most famous example of study using this method, is the one by Peters and Waterman (1982).

c) When the persons interviewed are experts on industry, instead of the people directly involved, the research method is called third-party assessment. This method is obviously very subjective and only useful when the experts are very familiar with the industry in question.

d) When a generalised survey is used, experienced marketers are asked for their experience with failed products (as a group instead of individual cases). Hopkins and Bailey (1971) give an example.

The results of individual studies are also strongly influenced by the way certain key terms have been defined. Especially important are the following questions. What is a new product? When does the new product come into existence? What is success? How long should a product have to achieve success? What type of firm or product should be studied? To illustrate the complexity of all those definitional decisions, Hart (1993) concluded that the somewhat indiscriminate use of a variety of measures of new product success couldn't allow researchers to view the measures interchangeably, or as surrogates. By extension, then factors associated with one success measure, for example, profit, may not be associated with another, for example, market share.

2.7 Product Success Factors Revisited.

Although every researcher uses a different list of criteria, the factors influencing the success of innovations/products can be grouped in five broad categories, that is factors related to

1 *marketing*: uniqueness of product, benefits offered to the user, the structure/size/growth of the market, efficiency of the marketing communications, launch effort, distribution channel choice, targeting and pricing strategies, synergy with existing marketing skills, involvement of users, quality of market research, education of users, training of the sales force, etc.;

2 *management:* top management support, contracts with research institutions, planning, timing efficiency of development activities, internal communications, quality of

management, management style, inadequate project evaluation or project control, integration of the innovation project with corporate strategy, existence of a protocol, etc.;

3 *technology*: in-house expertise, contract between R & D and the production and marketing functions, practicality of design, product defects, production problems, technical and production synergy, availability of outside technology, etc.;

4 *financial resources:* financial resources devoted to the project, etc;

5 *external events:* reaction of key competitors, changes in user needs, changes in exchange rates, expiration of patterns, government regulations, etc.

In conclusion, it can be seen that a plenitude of factors is central to the outcome of new product development projects. In addition, the means of researching this phenomenon are varied. Finally, the factors commonly associated with new product success relate to the strategy for new products within the company, the process of developing new products and the organisation of those charged with the responsibility of delivering these new products.

3.0 CHAPTER THREE.

RESEARCH DESIGN.

In this chapter the population of study, sampling plan, data collection method and data analysis techniques are presented.

3.1 The population.

The population of interest for this study consisted of all the detergents manufacturing Firms in Nairobi that had introduced at least one new product in the last decade. Nairobi was chosen because the majority of these firms were located there. The sampling frame was compiled from the list supplied by Ministry of Industrial Development. The Firms were located in the two industrial areas of Nairobi, Ruaraka and Industrial area.(Appendix IV, P. 50)

3.2 Sampling Design.

This was a census study and hence all the 31 firms were the subjects of study (see appendix IV, P. 50). The whole population was studied because the researcher wanted to avoid errors associated with sampling methods. In addition, the level of accuracy and the value of information were major consideration in taking the whole population.

3.3 Data collection Method.

Both primary and secondary data was used in this study.

The Primary data was collected using structured questionnaire (Appendix II P.40). The "drop and pick later" method of administering the questionnaire was employed. The questionnaire consisted of two sections, A and B. It was pre-tested on a representative number from the population for validity. This type of questionnaire was used by Cooper (1979) and was extensively pretested. In fact Cooper reports that he personally interviewed pre-test respondents following completion of the test questionnaires to check for clarity, operationality, etc.

Firms were initially contacted by telephone to solicit co-operation, identify the appropriate respondent and provide direction. This is because NPD is a sensitive area and if rapport is not established, it might lead to non-response or misleading results. Furthermore, respondents within Firms were selected on the basis of "functional neutrality" and having overall knowledge of the Firm's total new product efforts. In small firms, the managing director or owner was typically being the respondent; in larger firms, the division manager or the company's new product development manager provided the data.

3.4 Data analysis Technique.

Tables and proportions/ percentages were used to represent the response rate, year of establishment and number of employees. Tables and proportions were selected because of their clarity, preciseness and ease of understanding. Factor analysis was used to identify and

to determine the most influential factors on new detergent product success to form the basis of prioritisation. An SPSS package was used.

Factor analysis is typically applied to interval scaled responses to questions about a particular product or service in order to identify the major characteristics or factors considered to be important by respondents. Factor analysis applies an advanced form of correlation analysis to responses to a large number of statements to identify those which are similar-that is, to identify one or more sets of statements which result in highly correlated responses. The idea is, if the responses to a set of three or more statements is highly correlated, then it is believed that the statements measure some factor which is common to all of them. Therefore, since this is what the researcher had set out to do, this technique was the most appropriate.

4.0 CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

This chapter contains summaries of the data together with possible interpretations for each issue. The analysis is presented in two parts. The first part of the chapter presents an analysis of the years of establishment and number of employees of the firms studied. The second part presents empirical findings on the factors influencing the success of new detergents.

4.1Year of Establishment

To determine whether year of establishment might have had an influence on success of detergents, respondents were asked to indicate when their companies were formed. The results are shown in table 4.1 below.

Table 4.1: Year of Establishment

Year of establishment	Number of Firms
Before 1989	13
1989 – 1993	3
1994 – 1999	5
Non – Response	10
TOTAL	31

From the table 4.1 above, it can be seen that the numbers of firms manufacturing detergents in Nairobi were in the increase. In the last decade, 38% of the firms were established, thus intensifying competition in the detergent industry.

4.3 Number of Employees

The researcher wanted to find out whether size of the firm had an influence over the success of detergents. Size was defined using number of employees. KIRDI defined large and medium manufacturing firms as those employing a minimum of 50 employees. The results are shown in table 4.2 below.

Table 4.2 Number of Employees.

No. of Employees	Number of Firms
Below50	10
50 and above	11
Non-Response	10
TOTAL	31

Table 4.2 above shows that 52.4% of the respondents were large and medium detergent manufacturing firms while 47.6% were small.

4.3Factors Influencing the Success of New Detergents

Factor analysis was performed on section B of the questionnaire, in order to identify and prioritise the factors that do have the most influence on the success of new detergents. This part of the questionnaire had 42 variables for the 21 cases (respondents) on factors that do

influence the success of new detergents. A sample of the questionnaire is attached in appendix II, P.40). A statistical package SPSS (Statistical package for social sciences) was used to analyse this data. The results are presented in the following paragraphs.

Most influencing factor for the matrix questions was represented by a score of five (5) while least influence was represented by a score of one (1). Table 4.4(Appendix III, P.42) shows that variable 17,18,27 and 29 had high mean scores. This is because most respondents felt that pricing, competition, and cost and product superiority were the main factors influencing the success of new detergents. The standard deviation does not seem to show a wide variation of the answers to the questions by the respondents. To generate the factors, a correlation matrix was therefore necessary and the results are as follows (Appendix III, P.42).

Table 4.5 (Appendix III, P.42) shows the correlation matrix of the forty-two variables, which were contained, in section B of the questionnaire. This is the basis of generating factors and shows the inter-correlation among variables. For high correlation, the number should be either close to 1 or -1. Zero indicates no correlation For example variable 18 has no correlation with variable 3 at .0000. Variable 28 has high correlation with variable 26 at 0.87781. Variable 25 also correlates fairly highly with variable 24 at 0.86733. This shows how factors are grouped together through correlation by the model.

TABLE 4.6: Initial Output : Variable, Commonality and Eigen Values.

Variable	1	2	3	4	5	6	7	8	9	10	11-18	19-42
Communality	1..... 1											
Eigen Values	11.1	7	5	4.6	3.4	2.6	2.1	1.4	1.1	Below 1		
% Variance	26.4	16.6	11.7	10.9	8.1	6.2	5.1	3.4	2.5	Below 2.5		

Table 4.6 above shows the initial output of variables, communality and eigen values of the initial factor matrix. The communality is the proportion of the variable variation to the total variation that is involved in the factors. There is full contribution of the variables to the factors hence, all are indicated by 1 or 100%. The eigen values shows that there are nine main factors with the following contributions:

Factor 1.....26.4% of the variation

Factor 2.....16.7 of the variation

Factor 3.....11.7 of the variation

Factor 4.....10.9 of the variation

Factor 5.....8.1 of the variation

Factor 6..... . 6.2 of the variation

Factor 7.....5.1 of the variation

Factor 8.....3.4 of the variation

Factor 9.....2.5 of the variation

Factor 1 explains 26.4 percent of the dimension of success followed by factor 2 with 16.6 percent up to factor 18.

Table 4.7(Appendix III P. 46) Shows the initial factor matrix, thus the co-efficient (factor loadings) between the factors and the variables. At a glance, variable 30 loads higher to factor 2 while variables 17, and 37 to factor 3. Variable 2 loads higher to factor 4 while variables 35 and 36 loads higher to factor 5. Variable 13 loads higher to factor 9, etc.

However, all the loadings except for factor 9 are below 0.3 thus do not contribute sufficiently to the underlying constructs (factors) identified by the model. On the other hand, the first factor (Refer to table 4.6) has got a percentage of explained variance of 26.4% for much higher than the rest seventeen identified factors. This means that the first factor is explaining more than a quarter of the desired dimension of new detergent success. Hence there is need to rotate the initial matrix for easier interpretation using varimax rotation.

Table 4.8: Final output of variable, communality and Eigen values

Variable	1	2	3	4	5	6	7	8	9
Communality	.88	.82	.92	.91	.82	.80	.84	.97	.81
Eigen Values	11.1	7	5	4.6	3.4	2.6	2.1	1.4	1.1
% of Variance	26.4	16.6	11.7	10.9	8.1	6.2	5.1	3.4	2.5
Cum %	26.4	43.1	54.7	65.7	73.8	80.0	85.1	88.5	91.0

The final rotated factor matrix indicates nine factors, whose eigen values are more than 1. The principal component extraction had identified the same number of factors. Contribution of the nine factors in explaining variation is indicated below:

Factor 1---------- 26.4 %

Factor 2 ---------- 16.6%

Factor 3 ---------- 11.7%

Factor 4 ---------- 10.9%

Factor 5 ---------- 8.1%

Factor 6---------- 6.2%

Factor 7 ---------- 5.1%

Factor 8 ---------- 3.4%

Factor 9 ---------- 2.5%

The accumulated percentage variance is 91% of the dimension. This means that 9% of the dimension of new detergent success is explained by other factors not identified by the model.

Table 4.9 (Appendix III, P.47) shows that the rotated matrix of the initial factor matrix. Varimax, which is an orthogonal type (Kaiser, 1958) of rotation was performed. Varimax rotation attempts to simplify the columns of factor matrix by making all values close to either 0 or 1. This final matrix represents the terminal solution and it stands for both a pattern and a structure matrix with the coefficients representing both regression weights and correlation coefficients. The loading in a given row represents regression coefficients of factors that describe a given variable. In the varimax rotated matrix, Factor 1is loaded heavily by variables 30, 40,42, etc (as underlined). Factor 2 is loaded heavily by variables 15,19, 23, etc.

Factor 3 is loaded heavily by variables 4 and 17 while Factor 4 is loaded heavily by variables 2, 8, 11, etc. among others. The factors are identified below.

FACTOR IDENTIFICATION

Factor 1: **Resource base of the firm and marketing knowledge.**

V7 The company under took production start up well

V30 The Company had adequate financial resources

V33 The Company had compatible sales staff/distributor resources

V34 The Company had adequate advertising skills

V37 The Company undertook market launch well

V40 This good idea was derived from the market

V42 Customers needs change rapidly in market

Factor 2 : **Product Uniqueness and Marketing Synergy**

V15 The Company undertook user education well

V19 The Company understood buyer behaviour

V21 The management was confident about success

V22 The Company had a strong sales force launch effort

V23 Sales force effort was well co-ordinated

V24 This was a highly innovative product, new to the market

V25 Product had unique features for customer.

Factor 3 **Product/Price Competitiveness**

V4 The Company undertook product development well

V17 The Company understood buyer price sensitivity

Factor 4 **Technical and Production synergy and proficiency**

V2 The Company had compatible production resources for the product

V3 The Company undertook preliminary technical assessment well

V8 The Company knew production technology well.

V9 The Company knew production design well " no bugs"

V11 The production facilities were well geared up

Factor 5 : **Investment Magnitude strength, of marketing communication and launch effort**

V35 The Company had a strong advertising promotion launch effort

V36 Advertising effort was well coordinated

V39 The relative size of the investment in the product

Factor 6 : **Proficiency of pre development activities**

V6 The Company undertook pilot production well

V12 The Company undertook preliminary market assessment well.

V14 The Company undertook test market well

V20 The company undertook/knew size of potential market

Factor 7 : **Technological breakthroughs.**

V1 The Company had compatible engineering skills for product.

V5 The Company undertook in-house prototype test well

V10 The Company knew product process technology well.

V27 The product led customers reduce their costs

V29 The product was of higher quality than competitors.

Factor 8 : **Knowledge of consumer needs & wants**

V16 The Company understood customer needs wants.

Factor 9 : **Proficiency of market study**

V13 The Company undertook market study well.

Prioritisation of Factors

Factor	Pct of variance	Cum Pct	Order of priority
Resource base of the Firms and marketing knowledge	26.4	26.4	No. 1
Product uniqueness and marketing synergy	16.6	43.1	No. 2
Product/ price competitiveness	11.7	54.7	No. 3
Technical & Production Synergy & proficiency	10.9	65.7	No. 4
Investment magnitude, Strength of marketing Communication & launch effort	8.1	73.8	No. 5
Proficiency of Precommercialization Activities	6.2	80.0	NO. 6
Technological break throughs	5.1	85.1	No. 7
Knowledge of consumer needs, Wants	3.4	88.5	N0. 8
Proficiency of Market study	2.5	91.0	No. 9

Therefore resource base of the firm and marketing knowledge has got the highest percentage of explained variance (26.4%) thereby presenting the most parsimonious representation of the variables attached to the success of new detergents. According to the findings therefore, it is the priority factor. Proficiency of market study has the least influence on the success of new detergents.

5.0 CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS.

The objectives of this study were two folds: To identify the factors influencing the success of new detergents and two; to determine their relative importance. This was important for all the stakeholders in detergent products in pointing to the direction that the investors should take to ensure success. To achieve the stated objectives, the researcher assessed the type, severity, and prevalence and extends of the impact of the various factors under review to determine the most critical ones that influence the success of new detergents.

5.1 Discussions

The results of the factor analysis revealed that firms resources and marketing knowledge is the most important factor that influence the success of new detergents. This is both familiar and intuitively obvious in a developing country such as Kenya. Due to the enormous resources at the disposal of P&G (Proctor & Gamble) Company,for example, it has reduced the prices of its leading detergent by half (Daily Nation, June 24 1999 Page 4). The current research has identified these resources as finance, sales force, distribution, and advertising skills among others. The marketing knowledge required was information on the changing needs of the customers and launching. The findings support the notion that both dimensions are important characteristics of new successful detergents. Of particular interest is the fact that these two dimensions are not mutually exclusive; the dimensions are independent of each other. A product simultaneously can have both a strong marketing knowledge and adequate resources.

Product uniqueness and marketing synergy are prioritised second. The current research indicated that the product had unique features for the customers. Marketing synergy was in the form of coordinated sales force and launch effort and user education. That product uniqueness and marketing synergy is such an important ingredient in new product success is so obvious and truistic that it tends to be overlooked. The product is the core or central strategy in most detergent products; and it is through the product that the firm will seek its differential advantage.

The pricing aspect in the detergent products is the third in the priority list. It is occasioned by the fact that in developing countries such as Kenya, the majority of the people are poor. Therefore any change upwards in the cost/price of a commodity impacts negatively on its purchase/use. The results of this research support this notion. The managers of new detergents should therefore pay great attention to the element of pricing.

Technical and production synergy and proficiency is the fourth factor in order of relative importance, which impacts on success of new detergents. Products where such synergy and proficiency existed were undertaken in firms with a particularly strong and compatible technical engineering and production and resource base. The technical and production activities were carried out proficiently: Preliminary technical assessment and production facilities. In addition, such firms had a thorough understanding of the product and design technologies " no bugs". That all of these technical and production facets are important to new product success has long been taken for granted. Perhaps the most noteworthy conclusion is that this technical dimension, although very important, does not stand alone as the most critical dimension to new detergents success, even in a study of detergent product innovation.

Investment magnitude, strength of marketing communication and launch effort comes sixth in order of a priority. Strength of marketing communications and launch effort describes the marketing function. The need of a careful attention to the marketing function-sales force, advertising and promotion - as part of the innovation process is reinforced. Also when the relative size of the investment in the product is high, due attention is given to the investment to ensure that it succeeds.

The seventh factor was technological breakthroughs. Such detergents let customers reduce their costs and are of superior quality than competitors. Such products are hard to come by and hence it was not a critical factor influencing success of new detergents in Kenya.

Factor eight and nine, that is, knowledge of customer needs, wants and market study proficiency respectively, had very little impact on success of new detergents. This seems to suggest that proficiently executing those precommercialization activities alone is not a condition for success. In contrast, the commercialization phase was found to be of particular importance.

The findings of this research support other research findings. However there is a difference in the order of importance. For instance, most studies found product uniqueness as the number one factor that influences the success of new product (Cooper 19984, Myers and Marquis 1969, Cooper 1987, Link 1987, Maidique and Zirger 1984, etc). The current research ranked product superiority second, number one was resource base of the firm. A possible reason for this difference might be that in the developing Countries like Kenya, the critical issue is mass production and distribution of the product, while in the developed countries, where these studies were carried out, the critical issue was the quality of the product.

Another consideration identified in the NP literature that leads to successful NP is synergy, that is, the relationship between NPD and existing activities known as synergy with existing activities (Cooper 1979, Cooper and Kleinschmidt 1987, Mardique and Zirger 1994). This factor was strongly supported in the current research. Marketing Synergy was number two while technical and production synergy was number four in the priority list.

A number of studies have identified the efficient execution of the development process or particular activities in the development process, as critical to new product success (Cooper 1979, Cooper and Kleinschmidt 1987, Mardique and Zirger 1984). This finding has again been confirmed by the present research, as factors 6, 8 and 9 all deals with precommercialization activities.

The role of information in the NP success is critical (Cooper and Kleinschmidt 1987). Factors 1, 8 and 9 in the current research all relate to information. The gathering and disseminating of information and making decisions based upon this information are extremely important.

5.2 CONCLUSION

The secrets to success of new detergents remain a mystery, for the problem is very complex. What this research has done is identify a set of underlying constructs that can be used to characterize and perhaps cluster new detergents projects. The identification of the factors and the relative importance of each factor as a determinant of success provide valuable inputs into the screening decision. Moreover knowledge of which factors are critical to success can be

used to suggest needed improvements – which activities need attention, what information is critical, etc – to individual firms' new product processes.

The results from this research are gratifying to marketers. The critical role of marketing concept, marketing information, marketing communication and marketing launch strategy was strongly demonstrated. Indeed, a review of all the nine factors closely shows that all but one directly or indirectly pertains to the marketing function or to the market place. The wisdom of the marketing concept, even for detergents, often high technology new products, prevails.

The research question – what factors influence the success of new detergents is an important one, and so the search will continue. However the results of this research has gone along way in identifying some of the critical factors for success. Thus, there is no doubt that the new detergent developer would improve on their decision making.

5.3 Limitations of the Study

The research suffers from a number of limitations. A lack of descriptive model building, questions of reliability of the data (after the fact, scale measures), and issues of predictability are some of the unresolved problems. Overriding all of these is the basic issue: is there really an answer to what makes a new product a success? Perhaps the problem is so complex, and each case so unique, that those attempts to develop generalizations is in vain.

5.4 Suggestions for Further Research

As mentioned in the conclusion, the search for what factors influence the success of new products will continue. Future research thrust will focus on the moderating impact of other variables: for example, are the factors influencing success, the same for high technology versus low technology detergents: for big versus small?

Another research would focus on detergent manufacturing firms outside the city of Nairobi. This would provide a large sample on which to make sound conclusions.

APPENDIX I

INTRODUCTION LETTER TO THE RESPONDENTS

C/O MBA OFFICE
UNIVERSITY OF NAIROBI
LOWER KABETE CAMPUS
P.O. BOX 30197
NAIROBI.
APRIL21, 1999.

Dear Respondent,

I am a postgraduate student at the University of Nairobi. In partial fulfillment of the requirements for the award of the Masters of Business and Administration (MBA) degree, I am conducting a study on "FACTORS INFLUENCING THE SUCCESS OF NEW DETERGENTS IN KENYA."

Your organization has therefore been selected to form part of this study. To this end, I kindly request your assistance in completing the questionnaire and provide any other relevant information necessary to this study.

The information and data provided will be used for academic purposes only and will be treated in strict confidence. A copy of the research project will be made available to your organization upon request.

Your co-operation will be highly appreciated.

Yours faithfully,

OMONDI, I.O.
MBA STUDENT

MRS OMBOK, M.A.
SUPERVISOR

APPENDIX II

QUESTIONNAIRE

To be completed by the New Product Development Manager or his/her equivalent.

SECTION A

Please answer the following questions by either filling in the spaces provided or ticking one of the alternatives provided.

1. Name of the firm .....
2. Year of establishment .....
3. Estimated number of employees in all the branches .....
4. Which word best explain your firm's operation base?(Tick one)
(a) Multinational ( )
(b) National ( )
5. State one new detergent (new detergents should be defined as original detergents, detergent improvements, detergent modifications and new brands that the firm develops through its own research and development efforts) product manufactured by your firm that was a clear-cut case of success (success should be defined from the point of view of your firm, and in terms of profitability (that is, the degree to which a product's profitability exceeded the minimum acceptable profitability for this type of project or investment, regardless of the way your firm measures profitability)
.....

SECTION B

Listed below are some factors which have been identified as influencing the success of new detergents. You are asked in your opinion the extent to which these factors influenced the success of the detergent you have identified in (5) above by circling the most applicable score. A score of (1) implies least influence while a score of (5) implies most influence

1. The Company had compatible engineering skills for project 1 2 3 4 5
2. The Company had compatible production resources for the project 1 2 3 4 5
3. The Company undertook preliminary Technical Assessment well 1 2 3 4 5
4. The Company undertook product development well 1 2 3 4 5
5. The Company undertook in house prototype test well 1 2 3 4 5
6. The Company undertook pilot production well 1 2 3 4 5
7. The Company undertook production start up well 1 2 3 4 5
8. The Company knew product technology well 1 2 3 4 5
9. The Company knew product design well "no bugs" 1 2 3 4 5
10. The Company knew product process technology well 1 2 3 4 5
11. The production facilities were well geared up 1 2 3 4 5
12. The Company undertook preliminary market assessment well 1 2 3 4 5
13. The Company undertook market study well 1 2 3 4 5
14. The Company undertook test market well 1 2 3 4 5
15. The Company undertook user education well 1 2 3 4 5

16. The Company understood customer needs, wants 1 2 3 4 5
17. The Company understood buyer price sensitivity 1 2 3 4 5
18. Understood competitive situation 1 2 3 4 5
19. The Company understood buyer behaviour 1 2 3 4 5
20. The Company understood/knew size of potential market 1 2 3 4 5
21. The management was confident about success 1 2 3 4 5
22. Had a strong sales-force launch effort 1 2 3 4 5
23. Sales-force effort was well co-ordinated 1 2 3 4 5
24. This was a highly innovative product, new to the market 1 2 3 4 5
25. Product had unique features for customer 1 2 3 4 5
26. The product was superior to the competing products in meeting customers needs 1 2 3 4 5
27. The product let customers reduce their costs 1 2 3 4 5
28. The product had unique task for customer 1 2 3 4 5
29. The product was of higher quality than competitors 1 2 3 4 5
30. The Company had adequate financial resources 1 2 3 4 5
31. The Company had necessary market research resources 1 2 3 4 5
32. The Company had needed managerial skills 1 2 3 4 5
33. The Company had compatible sales-force/distribution resources 1 2 3 4 5
34. The Company had adequate advertising skills 1 2 3 4 5

35. The Company had a strong advertising/promotion launch effort 1 2 3 4 5
36. Advertising effort was well coordinated 1 2 3 4 5
37. The Company undertook market launch well 1 2 3 4 5
38. The product was priced higher than the competitors' products 1 2 3 4 5
39. The relative size of investment in the product 1 2 3 4 5

40. This product idea was derived from the market 1 2 3 4 5

41. The company frequently introduces new products in the market 1 2 3 4 5

42. Customer's needs change rapidly in market 1 2 3 4 5

43. Others (please specify)..... 1 2 3 4 5

..... 1 2 3 4 5

..... 1 2 3 4 5

APPENDIX III

Table 1. Average Annual Growth Rates of Real Gross Domestic Products, 1964-1995 (Percentages).

	1964-	1974-	1980-	1990-
Agriculture	4.6	3.9	3.3	0.4
Manufacturing	9.1	10.0	4.8	3.0
Private Household	3.5	14.5	10.0	10.5
Government Services	16.9	6.5	4.9	2.6
Finance, Real Estates, etc	9.8	12.4	6.7	6.6
Other Services	-	3.3	4.2	1.9
GDP	6.6	5.2	4.1	2.5

Source: National Development Plan (1997-2001).

TABLE 4.4 SUMMARY STATISTICS

	Mean	Std Dev
VAR00001	3.66667	1.15470
VAR00002	2.66667	1.31656
VAR00003	3.33333	.96609
VAR00004	3.14286	1.01419
VAR00005	3.66667	.96609
VAR00006	3.04762	1.02353
VAR00007	3.57143	.87014
VAR00008	3.42857	1.12122
VAR00009	3.09524	1.09109
VAR00010	3.76190	.99523
VAR00011	3.04762	.66904
VAR00012	3.71429	.84515
VAR00013	3.61905	.80475
VAR00014	3.47619	.87287
VAR00015	3.28571	1.05560
VAR00016	3.80952	.60159
VAR00017	4.19048	.92839
VAR00018	4.14286	.79282
VAR00019	3.76190	.53896
VAR00020	3.57143	.81064
VAR00021	3.57143	1.02817
VAR00022	3.33333	1.01653
VAR00023	3.80952	.81358
VAR00024	3.80952	1.32737
VAR00025	3.71429	1.38358
VAR00026	3.80952	1.36452

VAR00027	4.52381	.92839
VAR00028	3.95238	1.16087
VAR00029	4.47619	.81358
VAR00030	2.52381	1.07792
VAR00031	2.47619	.98077
VAR00032	2.90476	.83095
VAR00033	2.52381	1.07792
VAR00034	2.80952	1.16701
VAR00035	2.28571	1.27055
VAR00036	2.38095	1.02353
VAR00037	2.33333	.85635
VAR00038	1.47619	.81358
VAR00039	2.33333	.96609
VAR00040	3.04762	1.24403
VAR00041	1.85714	1.19523
VAR00042	2.33333	1.62275

TABLE 4.5 Correlation matrix for respondents No. Of cases =21 items=42

	VAR00001	VAR00002	VAR00003	VAR00004	VAR00005	VAR00006	VAR00007
VAR00001	1.00000						
VAR00002	.12060	1.00000					
VAR00003	.10458	.64207	1.00000				
VAR00004	.08539	.56170	.40825	1.00000			
VAR00005	.43327	.38000	.33929	.20412	1.00000		
VAR00006	.14102	.08658	.43823	.13762	.16855	1.00000	
VAR00007	.44787	-.17458	.23792	-.04047	.11896	.24862	1.00000
VAR00008	.19310	.54195	.32312	.20729	.60007	.15560	.04393
VAR00009	.30426	.37128	.11068	.39375	.36366	-.04904	-.06019
VAR00010	.71065	.05088	-.06934	.03538	.43336	.20803	.45365
VAR00011	-.17259	.47304	.43835	.21054	.33521	.06954	-.04908
VAR00012	-.25617	.08987	.48990	-.18333	.06124	.47892	-.10684
VAR00013	-.08968	-.22023	-.08575	-.11377	-.17150	.08383	-.38762
VAR00014	-.23150	.05801	.27670	.08876	.01976	.47704	-.37618
VAR00015	-.45123	-.17989	.04903	-.04003	-.24515	-.10578	-.51325
VAR00016	.19194	.16835	-.05735	.53854	.05735	.01547	.02729
VAR00017	.10883	.05454	-.13008	.71310	-.03716	-.22050	-.01768
VAR00018	.38232	.19161	.00000	.34645	.45695	.23766	.23814
VAR00019	-.37493	-.25837	-.03201	-.20908	-.16005	-.06906	-.22846
VAR00020	.16025	.28109	.06384	.32146	.19153	.14635	-.34430
VAR00021	-.16846	-.07387	-.10067	.39730	-.10067	-.21720	-.32734
VAR00022	-.49697	-.02491	.08486	.09700	-.23760	.03204	-.62180
VAR00023	-.33708	-.10892	-.16964	.03463	-.21205	-.22874	-.40359
VAR00024	.08699	-.15259	-.22095	-.46162	-.28593	-.25061	-.42053
VAR00025	-.06259	-.16469	-.37407	-.25452	-.44888	-.48421	-.56364
VAR00026	.02116	.10205	-.32872	-.12388	-.16436	-.42279	-.61964
VAR00027	.40422	-.13636	-.42739	-.03034	.37165	-.18542	-.14147
VAR00028	.17407	-.04362	-.52013	.00607	-.10403	-.33464	-.56570
VAR00029	.44353	.06224	-.33928	-.20776	.14843	-.38886	-.26234
VAR00030	-.09373	.09395	.40012	.01960	.12804	.61073	.46454
VAR00031	-.33849	.24524	.19349	-.12208	.07036	.12571	-.04185
VAR00032	.17370	.24375	.41523	.49160	.14533	.47591	.35564
VAR00033	-.13390	.19965	.49614	.06534	.27208	.56541	.25131
VAR00034	.17315	-.27119	.32522	-.27158	.02957	.46843	.55570
VAR00035	-.03408	.00000	.52955	.08315	-.24441	.48884	.20675
VAR00036	.11282	-.01237	.21911	.13762	-.21911	.36364	-.14436
VAR00037	-.38766	.28087	.40291	.40300	-.10073	.32326	-.06710
VAR00038	.28386	.20228	.29687	-.26836	.27566	.27163	.37332

VAR00039	.10458	.13104	.62500	.00000	-.03571	.43823	.41635
VAR00040	.01160	.25440	.40216	.35101	.26348	.11593	.43551
VAR00041	.54343	.44484	.56292	.47140	.43301	.29194	.46703
VAR00042	.16900	.35885	.46777	.57724	.39335	.23079	.49574

	VAR00008	VAR00009	VAR00010	VAR00011	VAR00012	VAR00013	VAR00014
VAR00008	1.00000						
VAR00009	.49629	1.00000					
VAR00010	.27525	.43634	1.00000				
VAR00011	.70462	.67842	.01788	1.00000			
VAR00012	-.28644	-.24012	-.20381	.02526	1.00000		
VAR00013	.07916	-.07050	-.43106	.03538	-.09452	1.00000	
VAR00014	-.32113	.05500	-.20830	.04485	.80364	.12880	1.00000
VAR00015	-.36210	-.32869	-.78870	-.16182	.32026	.66426	.44187
VAR00016	-.09531	.02902	.00398	-.34902	-.21073	-.26066	-.00907
VAR00017	-.13038	.27736	.10565	-.17633	-.43697	-.09879	-.17923
VAR00018	-.01607	.27249	.61558	-.10773	.06396	-.69411	.18579
VAR00019	.01182	-.21459	-.57705	.03301	.06273	.70266	.04049
VAR00020	-.17289	.27457	-.00885	-.05268	.25022	-.18614	.58549
VAR00021	-.13631	-.00637	-.54447	-.18691	-.20550	.39710	.07163
VAR00022	-.21934	-.12021	-.70839	-.02451	.40739	.46859	.60107
VAR00023	-.01566	-.09120	-.61458	-.07436	-.15582	.57094	-.00671
VAR00024	-.24477	-.02137	-.30099	-.10188	.03820	.58398	.16851
VAR00025	-.43282	-.01419	-.37868	-.25464	-.07330	.43623	.15969
VAR00026	-.27079	.18071	-.07188	-.15388	.03716	.02168	.28986
VAR00027	-.08234	.09637	.24996	-.36416	-.24579	-.05418	-.01469
VAR00028	-.32927	.16166	.03297	-.38320	-.16745	.08665	.22087
VAR00029	.03915	.28431	.27053	-.13560	-.30126	.13819	-.19446
VAR00030	.38416	-.12956	.16868	.24101	.22738	-.16194	-.06579
VAR00031	.35076	.09567	-.08294	.42091	.17235	.05128	.01391
VAR00032	.26067	.34140	.39443	.36832	.03051	-.13174	.13459
VAR00033	.26004	-.04454	.16868	.24101	.55668	-.27722	.30620
VAR00034	.10372	-.22065	.17425	.01220	.24623	.23831	-.00467
VAR00035	-.26575	.01546	-.02260	.10083	.63858	.06287	.59254
VAR00036	-.14938	.10020	.04441	-.02782	.24772	.42781	.40242
VAR00037	.10415	.12486	-.13689	.31999	.34542	-.09674	.31216
VAR00038	.47765	.00268	.27053	.32369	.06233	-.09091	-.19446
VAR00039	.00000	.01581	.13868	.28364	.42866	-.02144	.21741
VAR00040	.55818	.10700	.17115	.35758	-.22419	-.13080	-.48238
VAR00041	.42107	.47104	.55845	.32157	.00707	-.26734	.02054
VAR00042	.46717	.26357	.29928	.30702	-.10937	-.35735	-.18826

	VAR00015	VAR00016	VAR00017	VAR00018	VAR00019	VAR00020	VAR00021
VAR00015	1.00000						
VAR00016	-.06749	1.00000					
VAR00017	-.00729	.60536	1.00000				

	VAR00015	VAR00016	VAR00017	VAR00018	VAR00019	VAR00020	VAR00021
VAR00018	-.58891	.47923	.23290	1.00000			
VAR00019	.74075	-.14687	-.00476	-.73552	1.00000		
VAR00020	.03339	.43941	.04746	.56681	-.47412	1.00000	
VAR00021	.62522	.58895	.56122	-.22782	.52849	.18854	1.00000
VAR00022	.79214	.19078	.03532	-.37224	.51716	.30338	.66975
VAR00023	.70696	.22864	.24903	-.57584	.80364	-.12996	.79413

VAR00024	.46900	-.36078	-.37483	-.49548	.28289	.15268	.04710
VAR00025	.53798	-.06865	-.03336	-.41675	.23947	.24200	.29625
VAR00026	.17852	.13632	-.04887	.07263	-.20073	.55534	.08146
VAR00027	-.00729	.45615	.16851	.43669	-.13800	.44608	.24694
VAR00028	.17487	.34434	.19441	.22507	-.17886	.61481	.27528
VAR00029	.00832	-.00973	.07250	-.03322	.04344	.09747	.01708
VAR00030	-.31388	-.14687	-.20461	.02507	.05328	-.41690	-.28358
VAR00031	.00690	-.43179	-.21442	-.28477	.31981	-.35937	-.23375
VAR00032	-.42345	-.03810	.15432	.32527	-.38810	.01060	-.34278
VAR00033	-.18205	-.06976	-.20461	.20060	-.03279	-.13079	-.23846
VAR00034	.04639	-.41036	-.33403	-.29336	.32177	-.56628	-.23812
VAR00035	.19705	-.18690	-.13322	-.09218	.03129	.02774	-.13123
VAR00036	.26444	-.36348	.02506	-.25526	.08201	.02583	-.02715
VAR00037	.00000	.03235	.23060	.00000	.07222	-.07203	.05679
VAR00038	-.39922	-.41836	-.65567	-.03322	-.29865	-.12996	-.58065
VAR00039	-.04903	-.57354	-.35306	-.13056	-.12804	-.19153	-.50337
VAR00040	-.27740	.01273	.29480	-.10863	.16690	-.62329	.01675
VAR00041	-.40196	.16888	.11587	.39196	-.36591	.08847	-.17437
VAR00042	-.37946	.37560	.35401	.34977	-.13339	-.15204	.08990

	VAR00022	VAR00023	VAR00024	VAR00025	VAR00026	VAR00027	VAR00028
VAR00022	1.00000						
VAR00023	.62473	1.00000					
VAR00024	.23469	.28882	1.00000				
VAR00025	.39106	.43784	.86733	1.00000			
VAR00026	.30039	.10080	.58629	.79074	1.00000		
VAR00027	-.08830	.13870	.20673	.31697	.47739	1.00000	
VAR00028	.22598	.20168	.51300	.73823	.87781	.72020	1.00000
VAR00029	-.20153	.21942	.59749	.61552	.58122	.64622	.66050
VAR00030	-.16732	-.22263	-.62569	-.83336	-.81263	-.58767	-.81818
VAR00031	-.01672	.18202	-.08047	-.22635	-.30245	-.50729	-.41825
VAR00032	-.25651	-.54590	-.47059	-.54674	-.36958	-.45061	-.41961
VAR00033	.10647	-.27964	-.62569	-.73278	-.50668	-.48774	-.61839
VAR00034	-.11239	-.09279	-.12143	-.37602	-.62051	-.41095	-.63446
VAR00035	.30971	-.18657	-.02541	-.06501	-.11124	-.51472	-.29541
VAR00036	.25630	-.02859	.24009	.15132	-.05285	-.43097	-.02605
VAR00037	.32548	-.04784	-.51319	-.46420	-.37085	-.73373	-.48620
VAR00038	-.38290	-.46043	-.00441	-.31728	-.22949	-.21435	-.39831
VAR00039	-.22062	-.42409	.01300	-.22444	-.36665	-.53889	-.52013
VAR00040	-.25041	.00941	-.69066	-.71793	-.76022	-.45560	-.76004
VAR00041	-.24692	-.38931	-.39620	-.41898	-.17081	-.06437	-.22136
VAR00042	-.16166	-.17674	-.82792	-.77944	-.57957	-.25445	-.54853

	VAR00029	VAR00030	VAR00031	VAR00032	VAR00033	VAR00034	VAR00035
VAR00029	1.00000						
VAR00030	-.64074	1.00000					
VAR00031	-.11040	.41440	1.00000				
VAR00032	-.52124	.39342	.11978	1.00000			
VAR00033	-.64074	.82787	.31981	.39342	1.00000		
VAR00034	-.32099	.63975	.17058	.23816	.52050	1.00000	
VAR00035	-.42843	.28685	.00573	.45330	.50590	.54436	1.00000
VAR00036	-.10865	.12733	.15891	.33873	.17264	.39866	.60419
VAR00037	-.66982	.55972	.45641	.53871	.66806	.11674	.45955
VAR00038	-.13309	.38553	.07758	.21836	.27150	.41628	.10365
VAR00039	-.27566	.40012	.14072	.41523	.35210	.63566	.69248
VAR00040	-.36934	.68891	.30833	.34319	.50248	.41984	.02260
VAR00041	-.13222	.29384	-.15233	.58974	.41027	.37383	.42332

VAR00042	-.50496	.60980	.05236	.54384	.60980	.29923	.16976

	VAR00036	VAR00037	VAR00038	VAR00039	VAR00040	VAR00041	VAR00042
VAR00036	1.00000						
VAR00037	.36129	1.00000					
VAR00038	.01144	-.16746	1.00000				
VAR00039	.52250	.16116	.48771	1.00000			
VAR00040	-.05423	.45370	.17408	.19415	1.00000		
VAR00041	.16932	.14655	.38197	.43301	.40833	1.00000	
VAR00042	-.11038	.49173	.13886	.11694	.78431	.72181	1.00000

Table 4.7: Initial factors score coefficient matrix

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR00001	-.01520	.01678	.01627	-.01166	.08354
VAR00002	-.05769	-.00281	.00230	.22373	-.00836
VAR00003	-.00053	.05468	-.02392	.13530	.06741
VAR00004	-.00756	.00643	.14841	.10802	.07761
VAR00005	.04367	.05774	-.04609	.09896	-.15071
VAR00006	.08605	.03132	-.05824	-.03546	-.01396
VAR00007	.06707	-.01976	.00023	-.09313	.06132
VAR00008	.03944	.06746	-.09852	.20680	-.10840
VAR00009	-.07581	-.02689	.09038	.14986	.07345
VAR00010	-.00861	-.09340	.06716	-.05646	.04793
VAR00011	-.03032	.00757	-.06242	.22756	-.00886
VAR00012	-.00021	-.00117	-.03164	-.03903	-.01706
VAR00013	.01366	.16299	-.06611	.04060	.05858
VAR00014	-.02474	.00480	.01541	-.01255	.01612
VAR00015	-.00406	.14936	.00628	-.00409	.02394
VAR00016	.04825	.02807	.11474	-.02591	-.08290
VAR00017	-.00661	-.00683	.26751	-.04630	.09738
VAR00018	.01245	-.11711	.06335	-.04277	-.08228
VAR00019	.05388	.18242	.01894	-.02239	-.02093
VAR00020	-.05298	-.04001	-.01616	.06909	-.05226
VAR00021	.03962	.14893	.10419	.00882	-.02784
VAR00022	.00820	.11086	.01933	.03109	-.02471
VAR00023	.02477	.17027	.05915	.01558	-.04583
VAR00024	-.10560	.05350	-.09241	.04049	.08288
VAR00025	-.12580	.02859	.00997	.01599	.10114
VAR00026	-.13396	-.04753	.00906	.05357	.01658
VAR00027	-.00326	.04111	-.00452	-.03501	-.13290
VAR00028	-.09547	-.02246	.05252	-.00913	-.00324
VAR00029	-.10088	.02704	.03989	.02130	.02094
VAR00030	.12521	.01320	-.03762	-.03133	-.05404
VAR00031	.00235	-.00437	.02497	.04694	-.03281
VAR00032	.01032	-.08035	.04181	.04566	.13042
VAR00033	.09370	-.00107	.00296	-.02560	-.05956
VAR00034	.08387	.08794	-.04368	-.09180	.09478
VAR00035	-.01970	-.00169	.05245	-.04272	.20638
VAR00036	-.04473	.01060	.07549	-.02855	.23949
VAR00037	.03069	-.04196	.12410	.01654	.04958
VAR00038	.02268	.00159	-.23756	.10876	-.03223

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR00039	-.03152	-.01785	-.04742	.01915	.19618
VAR00040	.08740	.04926	.06739	.03907	.00468
VAR00041	-.00063	.01023	.04020	.08189	.11147
VAR00042	.08866	.02179	.08144	.04371	-.01258

	Factor 6	Factor 7	Factor 8	Factor 9
VAR00001	-.02478	.24861	.05360	-.00396
VAR00002	.00526	-.04767	.02197	-.23919
VAR00003	.03526	.01770	.10517	-.32398
VAR00004	-.04661	-.05763	.13542	.01045
VAR00005	.12793	.21111	-.06628	-.02108
VAR00006	.15849	.08820	.08549	.29381
VAR00007	-.07549	.09416	.07620	-.15961
VAR00008	-.02741	.03709	.03852	.18551
VAR00009	-.01714	.07291	-.16655	.12316
VAR00010	.02171	.20777	-.21654	.08511
VAR00011	-.03055	-.08455	-.03390	.06575
VAR00012	.23481	.05358	-.13381	-.23844
VAR00013	-.03688	.04817	.13532	.35446
VAR00014	.23731	.03940	-.06686	.05770
VAR00015	.05612	.02700	.04339	-.09509
VAR00016	.03996	.02657	.16956	-.03117
VAR00017	-.07750	.04429	-.11409	-.03903
VAR00018	.12939	.06200	-.03448	.03683
VAR00019	.01836	.12366	-.13172	-.03660
VAR00020	.14058	-.04408	.18046	.11245
VAR00021	-.00229	.03439	.13388	.01738
VAR00022	.11698	-.04476	.07286	.05235
VAR00023	.00323	.08205	-.06063	-.04013
VAR00024	-.02856	.03451	.03341	.01282
VAR00025	-.04755	-.00500	-.00221	-.08867
VAR00026	.03968	-.02493	-.03491	-.08073
VAR00027	.08783	.19962	.03015	.01913
VAR00028	.05170	.05593	-.02655	.07170
VAR00029	-.01171	.22661	-.23953	-.16714
VAR00030	.05197	.01155	-.03485	.10226
VAR00031	.05115	.02018	-.40851	-.03710
VAR00032	-.04200	-.09258	.09303	.27279
VAR00033	.16009	.05086	-.12415	-.02959
VAR00034	.00991	.17734	-.01161	-.01050
VAR00035	.06061	.02751	-.00147	-.12201
VAR00036	.00766	.05602	-.08562	.19574
VAR00037	.05522	-.11766	-.16677	.06709
VAR00038	-.04447	-.04615	.27476	.08509
VAR00039	-.03286	.01206	.03929	-.18268
VAR00040	-.09109	.03618	-.06839	-.11070
VAR00041	-.01579	.12096	.10234	-.11583
VAR00042	-.01706	.03264	.06244	-.06655

TABLE 4.9: Final Rotated Factor Matrix for respondents:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR00001	-.07926	-.30075	.02535	.07992	.16320
VAR00002	-.00584	-.13310	.12051	.82190	-.00822
VAR00003	.37880	.05178	-.07109	.54745	.38663

VAR00004	.14780	-.05928	.73152	.48264	.14116
VAR00005	.21965	-.12830	-.06053	.50462	-.34614
VAR00006	.47350	-.06860	-.14926	.02712	.27307
VAR00007	.57790	-.35724	-.10347	-.19811	.20327
VAR00008	.33841	.03375	-.18626	.79102	-.21134
VAR00009	-.19832	-.20838	.28907	.67181	.13833
VAR00010	.10873	-.68209	.05034	.05973	.09164
VAR00011	.15403	-.00422	-.17697	.82832	.09579
VAR00012	.09168	.03290	-.25552	-.07139	.22462
VAR00013	-.16819	.78684	-.16688	.01468	.25452
VAR00014	-.19036	.09682	.04216	.01212	.26156
VAR00015	-.24029	.84525	.03998	-.15628	.12040
VAR00016	.03832	-.01979	.70639	-.04717	-.39020
VAR00017	.01509	.01748	.94208	-.01661	.01392
VAR00018	.05325	-.73956	.32976	.03504	-.26935
VAR00019	.13365	.91779	-.03319	-.11378	-.00275
VAR00020	-.48273	-.23807	.22446	.19824	-.14455
VAR00021	-.07550	.69633	.59818	-.03031	-.19515
VAR00022	-.16287	.67323	.21392	.01511	.03286
VAR00023	-.12823	.87699	.25514	-.02649	-.20629

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR00024	-.77001	.37759	-.40373	-.07469	.19454
VAR00025	-.89317	.36764	-.02489	-.15862	.11376
VAR00026	-.90449	-.05792	.06135	.04751	-.11504
VAR00027	-.46700	-.03119	.14698	-.14480	-.55094
VAR00028	-.85985	-.01749	.26381	-.12161	-.22014
VAR00029	-.70018	.07447	-.02832	.05706	-.17057
VAR00030	.90517	-.08440	-.17886	.06813	.11103
VAR00031	.27189	.13345	-.18259	.28975	.02928
VAR00032	.40839	-.44292	.17536	.32112	.49861
VAR00033	.74425	-.13157	-.06134	.13068	.11972
VAR00034	.60985	.20566	-.37182	-.19920	.50541
VAR00035	.19645	.01941	-.00734	-.04929	.79586
VAR00036	-.05532	.15308	.04672	-.00741	.81313
VAR00037	.50133	-.01734	.36412	.23261	.29279
VAR00038	.25622	-.25333	-.73248	.30950	.11158
VAR00039	.25282	-.15057	-.39349	.12150	.76036
VAR00040	.80368	.06469	.18599	.31023	.05075
VAR00041	.31774	-.30562	.16151	.46541	.37779
VAR00042	.75365	-.16854	.39470	.36176	.01865

	Factor 6	Factor 7	Factor 8	Factor 9
VAR00001	-.16161	.81154	.24845	.02982
VAR00002	.13508	-.03761	.05168	-.29300
VAR00003	.31396	.02526	.18383	-.43219
VAR00004	.03783	-.04540	.29677	.01665
VAR00005	.21337	.57186	-.01511	-.01797
VAR00006	.55655	.19924	.12954	.32147
VAR00007	-.28254	.34413	.18080	-.22865
VAR00008	-.20200	.23092	-.08407	.21930
VAR00009	-.05994	.27046	-.20802	.23552
VAR00010	-.10437	.64541	-.17581	.16893
VAR00011	-.03563	-.14888	-.21336	.08642
VAR00012	.84892	-.11766	-.12478	-.30745
VAR00013	-.08077	.05417	.04529	.44634
VAR00014	.91364	-.08899	-.01066	.07953
VAR00015	.27396	-.18733	.04612	-.11294

VAR00016	.12812	.12823	.44511	-.06260
VAR00017	-.24585	.07081	.00271	.02119
VAR00018	.35488	.29021	.15867	.04235
VAR00019	-.05398	-.00320	-.27612	-.01337
VAR00020	.59697	.01622	.39403	.11576
VAR00021	.01916	-.02888	.26230	.02367
VAR00022	.52004	-.33086	.09148	.05197
VAR00023	-.07657	-.03187	-.11249	-.01468
VAR00024	-.04301	.07645	-.00848	.05127

	Factor 6	Factor 7	Factor 8	Factor 9
VAR00025	-.07173	-.05523	.01651	-.05626
VAR00026	.18828	-.02677	.03546	-.05485
VAR00027	.06822	.57970	.22906	.04476
VAR00028	.14165	.18295	.10215	.14325
VAR00029	-.24329	.55075	-.23443	-.10031
VAR00030	.11975	-.04120	-.14326	.07889
VAR00031	.03650	-.19484	-.73015	.01339
VAR00032	.05851	-.07103	.10255	.32145
VAR00033	.50572	-.03009	-.17415	-.06508
VAR00034	.00494	.33373	-.04807	-.02426
VAR00035	.45843	-.05855	.06045	-.14730
VAR00036	.21020	.03726	-.13440	.29737
VAR00037	.31750	-.47070	-.29122	.09246
VAR00038	-.09644	.13752	.25232	.02238
VAR00039	.10199	.04107	.03107	-.23667
VAR00040	-.36292	.05450	-.14864	-.13910
VAR00041	.05369	.45311	.27484	-.14145
VAR00042	-.04087	.13505	.15290	-.10964

APPENDIX IV

LIST OF DETERGENTS MANUFACTURING FIRMS IN NAIROBI

1. East Africa Industries
2. Proctor and Gamble
3. Kapa oil Refineries
4. Colgate Palmolive
5. Orbit Chemical Industries
6. Reckitt and Colman Industries
7. Haco Industries
8. United Chemicals Industries Ltd.
9. R.H. Devani
10. Dexit Florachem Index Ltd
11. Cussons & CO. Ltd.
12. Nova Chemicals
13. Supersleek Ltd.
14. Diamond Industries
15. Jet Chemical Industries
16. Thika Wax Works Ltd.
17. Amsco Industries Ltd.
18. Blue Ring Products Ltd.
19. Mbichi Industries Ltd.
20. Mbui World Industries Ltd.
21. Turaco Ltd.
22. Safi Products Ltd
23. Soilex Chemicals Ltd.
24. Spear Industries Ltd.
25. Johnson Wax (EA) Ltd.
26. Patrainic Products Ltd.
27. Deskin Products Ltd.
28. Kiwi Brands Ltd.
29. Patrainic Products Ltd.
30. Seka Processors Ltd.
31. Transcare Industries ltd.

REFERENCES

Aaker,D.A. and Day, G.S. Marketing Research. John Willy & Sons, Inc.NY, 1990.Fourth Ed.

Aosa, E.(1992) "An Empirical Investigation of Aspects of Strategy Formation and Implementation Within Large, Private Manufacturing Companies in Kenya."Unpublished Ph.D.Thesis, University of Strathcylyde,Glasgow-Scotland.

Banting,P.M. "Unsuccessful Innovation in industrial Market". Journal of marketing.vol.42 January, 1978.

Booz, Allen And Hamilton: New product Management for the 1980s, New York, John Willy & Sons, Inc. 1982.

Cooper, R.G: "The Dimensions of Industrial New Product Success and Failure".Journal of Marketing, Vol.43 Summer 1979 pp 93- 103..

Crawford Merle C: "Marketing Research and the New Product failure Rate". Journal of Marketing, Vol.41 April 1977 pp 51-61.

Davidson Hugh J. "Why Most New Consumer Brands Fail".Harvard Business Review, March-April 1976 pp 117-122.

Dillion, William R: "The New Product Problems: an approach for investigating product failures". Management Science Journal Vol. 25, 1979.

Economic Survey, 1998. Central Bureau of Statistics, government Printer Nairobi, Kenya.

Guiltinon, J.P. and Paul, G.W: Readings in Marketing Strategies and Programmes. New York, McGraw-Hill, Inc. 1982.

Hogan, P.T. and Higgins, S.H.(1999) "Internal diffusion of high technology industrial innovation:an empirical study." Journal of Business and industrial marketing, Vol.14 No.1.

Howley, M: "Criteria for Success in NPD for Consumer Goods: A Comparative Study". European Journal of Marketing, Vol.24. 1990.

Jacobs, L and Herbig, P.: "Japanese Product Development Strategies". The Journal of Business and Industrial Marketing. Vol.13 Nos. 2 & 3, 1998, pp 132-154.

Kamath, R.R and Liker J.K: "A second look at Japanese Product Development". Harvard Business Review, Nov-Dec. 1994, pp 154-74.

Kotler, P.: Marketing Management. Prentice Hall of India Private Ltd. New Delhi, 1997.

Kotler, P and Armstrong G.: Principles of Marketing. Prentice Hall of India Private Ltd. New Delhi, 1996.

Lawton, L. and Parasuvaman, A.: "So You Want Your New Product Planning to be Productive". Business Horizons. Dec.1980 pp 29-34

---------- "Listening to Voice of the Market Place". Business Week Feb. 21st, 1983 pp 90 ff.

National Development Plan, 1997-2001, Nairobi Government Printer, 1996.

Nzuki, K.P. "Factors Influencing Product Innovation among Medium and Large Manufacturing Firms". Unpublished MBA Project, University of Nairobi, Nairobi 1981.

Paisley, College of Technology: Marketing for Manufacturing Managers. Oxford Pergamon Press plc, 1989.

Parker, M.H, Brownlee R.E and Bartels, R: Readings in Marketing Columbus, Ohio, Charles E. Merrill Books, Inc.

Power,C.,Kervin,K., Grover,R., Alexander, K. and Alot, R.D.:"Flops: Too Many New Products Fail. Here is Why and To Do Better". Business Week 16th August, 1993 pp 34-39.

Schmidt, J.B. "New Product Myopia" The Journal of Business and Industrial Marketing Vol.10 No.1, 1995 pp 23-33.

Sessional Paper No.2 of 1996 On Industrial Transformation to the Year 2020, Government

Printer, 1996.

Wind, J and Vijay, M. "Issues and Opportunities in New Product Development. An introduction to the Special Issue". Journal of Marketing Research , Vol.34 Feb. 1997 pp. 1-11.

Wizenberg, L. The New Products Handbook Don Jones-Irwin Homewood, Illinois, 1986.