MARKET SEGMENTATION BY THE MEDIUM AND LARGE SCALE MANUFACTURING FIRMS IN KENYA

BY

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A MANAGEMENT PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS IN BUSINESS AND ADMINISTRATION, FACULTY OF COMMERCE, UNIVERSITY OF NAIROBI

JUNE 1991

DECLARATION

THIS PROJECT IS MY OWN ORIGINAL WORK AND HAS NOT BEEN PRESENTED FOR A DEGREE IN ANY OTHER UNIVERSITY

SIGNED: Ng'ang'a

JAMES MBURU NG'ANG'A

THIS PROJECT HAS BEEN SUBMITTED FOR EXAMINATION WITH MY APPROVAL AS THE UNIVERSITY SUPERVISOR

SIGNED:

D.O. OCHORO

DATE: Sept. 12th, 1991

DEDICATION

To my parents, Duncan Ng'ang'a and Phyllis Njeri for their guidance, love and parental care; who, despite the lack of opportunity in their time to get formal education, sacrificed all to have us, their children, educated. Thank You and may God bless you

ACKNOWLEDGEMENTS

For a study of this nature to come to fruitition, input from various parties is required and to all these I will be forever indebted. On the academic side, I would like to thank my supervisor Mr. D. O. Ochoro for his criticism, suggestions, advice and availablilty which helped me complete this project on time. I would also like to extend sincere thanks to all the staff of the Faculty of Commerce, University of Nairobi, and also my colleagues in the MBA programme for their encouragement when my spirits were low and assistance when I needed it. I also wish to thank all the respondents in industry who availed me the data used in this report. To all of you, thank you.

In a demanding course like the MBA, one's immediate family is adversely affected in various ways. Due to pressure of work, one at times may become touchy and generally unapproachable. For this I wish to thank my wife Susan Waithera who persevered it all when my moods were low and as I burnt the midnight oil; my children Michael Ng,ang,a, Catherine Njeri and Larry Wangai who are too young to understand why dad was often not at home and when in was not in the mood for banter. Thank you for bearing with me.

I also wish to thank Felicitas Nyambura and her family Kevin and "Cousin" Wangui for the assistance they gave me and my family during the course of my studies; my older brother Ngaruiya for having been a model to aspire to since my childhood days; to my younger sister Mwihaki for having been a challenge throughout my education carreer and all the other members of my family.

Last but not least, I would like to thank the University of Nairobi for the admission and sponsorship for this course which enabled me fulfil my education and life goals. A big THANK YOU to you all.

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ABSTRACT

The study contained in this report investigated the use of market segmentation by the medium and large scale manufacturing firms in Nairobi with the aim of generalising the findings to similar firms throughout Kenya. It had a further aim of identifying the specific segmentation variables which influence the production and marketing of the firm's product and also isolating the problems encountered in the practice of market segmentation.

To achieve these objectives a questionnaire was constructed and administered. The respondents were marketing managers, product managers or any other person conversant with the product and marketing strategies in the particular firm. The respondents had to rate the various segmentation variables indicating the extent to which such variables influence the product and marketing strategy in their firm.

The data so collected was analyzed by use of tables, percentages and proportions. A further statistical test was carried out using the t - test to find out whether the scores for the various variables were statistically different among the different industries.

The findings obtained thus led to the following conclusions:

1. The medium and large scale manufacturing firms in Kenya segment their markets and direct their marketing mix at particular target groups in the production and marketing of their products. This is despite the lack of the use of sophisticated models as used in the advanced market economies.

2. The various firms in different industries are influenced by quite different segmentation variables depending on their product and market characteristics.

3. The major problem hampering the use of market segmentation models is the undeveloped nature of our markets for they are beset by various restrictions e.g by the government and other regulatory mechanisms which in a way renders them inefficient.

Arising from these findings, it was recommended that the management of any firm needs to differentiate its offer to the consumer even in a subtle way as this will mark the beginning of market segmentation, which is important for the firm's survival in a competitive environment.

CHAPTER 1

1 INTRODUCTION

1.1 BACKGROUND

Market segmentation is viewed by many marketing theorists and practitioners as one of the most important advances in marketing theory in recent times. Lazor W. and Culley J.D.(1983:186), Wind Y. (1978:317) among others maintain that the concept of market segmentation is a most important development and one of the most fundamental concepts of modern marketing practice. Indeed as Green (1977:61) asserts, few if any topics in marketing have commanded more attention than market segmentation in the recent past.

Marketing theorists and practitioners have long realized that a firm, whether dealing in goods or services, must formulate a marketing strategy that takes into account the purchasing behavior of their customers, whether organizations or individual consumers. This is the springboard of the concept of market segmentation. Davis K.R.(1982:67) expounds on this and asserts that market segmentation calls for dividing the market into homogeneous buyer groups and creating specific marketing programs to meet the needs of these groups. Researchers and authors are in agreement over the definition of market segmentation. The definition by McDaniel (1982:93) is a typical one bringing out the essential elements of market segmentation . He defines market segmentation as the process of dividing a heterogeneous market into segments which are identifiable for the purpose of designing a marketing mix to meet the needs of consumers in segments attractive to the firm. Attractiveness in this context is measured in terms of segment's contribution to meeting the objectives of the firm.

Kotler (1988:3) views marketing as a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others. Lazer and Culley (1983:12) lists what they consider as the universal marketing functions as:

* Exchange functions: buying and selling
* Physical supply functions: transportation and storage
* Facilitating functions: financing, risk taking, standardizing, grading, and gathering market information.

Marketing management has been defined by the American Marketing Association as the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives. Given that marketing management is the conscious effort to achieve desired exchange outcomes with target markets, certain philosophies have evolved in the history of marketing to guide the marketing effort. These philosophies are the production concept, the product concept, the selling concept, marketing concept and the societal marketing concept.

Among these philosophies, Wind (1978:317) identifies the marketing concept to be of special relevance to market segmentation. This concept holds that the key to achieving organizational goals consists of determining the needs and wants of target markets and delivering the desired satisfactions more effectively and efficiently than competitors. The marketing concept then is the beginning of market segmentation theory as it involves targeting specific groups in the market place and providing an offer specifically targeted to its special needs. Market segmentation is one of the major ways of operationalizing the marketing concept.

Wendell Smith(1956) first used the concept of market segmentation when he advanced the notion that a market demonstrating heterogeneous characteristics could be divided into a number of homogeneous segments along some descriptors. It therefore had its roots in the early post World War II period when the attention of marketers was increasingly customer oriented. Though the orientation of marketers shifted from the marketing concept to the societal marketing orientation around the mid-60s, market segmentation has remained a central tool of marketing strategy up to the present time. Of course the practice has been refined due to the developments in the market place especially the impact of computers and the changing economic and demographic trends.

The development towards market segmentation has gone through three different stages each of which had different emphasis. At its most undeveloped stage, the strategy pursued is mass marketing or undifferentiated marketing. This is characterized by the seller engaging in the mass production, mass distribution and mass promotion of one product for all buyers. The firm in this case chooses not to recognize the different demand curves that make up the market and instead treats the market as an aggregate, focusing on what is common in the needs of the buyers rather than on what is different. The firm will try to design a product and marketing program which appeals to the broadest number of buyers.

The second stage is differentiated marketing or product variety marketing. In this case, the firm decides to operate in all segments of the market but designs separate product and marketing programs for each. The seller produces several products that exhibits different features, styles, qualities, sizes and so on with the aim of offering variety to buyers rather than appealing to different segments. The seller hopes that a deep position in different segment will strengthen the firm's reputation in its product and hence increased sales.

The final stage is concentrated marketing or market segmentation. Instead of going after a small share of a large market the firm goes after a large share of one or a few submarkets. Instead of spreading itself thin in many parts of the market, the firm concentrates its resources to gain a good market position in a few areas. The rationale for this is that the firm is more likely to prosper if it develops a marketing mix that satisfies a particular segment or segments of a total market than if it attempts to design a mix to satisfy everyone.

For effective market segmentation to be done, there is a need to choose the basis upon which segmentation is to be carried out. In this, many variables have been suggested in the consumer behavior literature. Wind(1978:319) divides these variables into two types:- the first is general customer characteristics which include demographic and socioeconomic characteristics, personality and lifestyle characteristics, and attitude and behavior towards mass media and distribution outlets. Secondly, situation specific customer characteristics such as product usage and purchase patterns, attitude towards the product and its consumption, benefits sought in a product category, and any responses to specific marketing mix variables such as new product concepts, advertisements and so forth. Beckman(1980:123), McDaniel(1982:93) have tended to divide these into four categories:

(a)Geographic variables which include region, city size, climate, density etc.

(b) Demographic variables which are age, sex, family size, family life cycle, income, occupation, education, religion, race, nationality.

(c) Psychographic variables such as social class, lifestyle, personality, etc.

(d) Behavioral variables including occasions, benefits, user status, loyalty status, readiness stage, attitude towards product.

Kotler(1988:285) refines these further and sees them as belonging to two broad groups. These are variables related to consumer characteristics comprising the geographic, demographic and psychographic variables as enumerated above. Here, the researchers try to form segments by looking at consumer characteristics independent of the particular product of interest. By using the above, they try to see whether these customer segments show different responses to the product. The second broad group looks at consumer responses to the product e.g benefits sought, use occasions, attitude towards product. Once the segments are formed on this basis, the researcher tries to find out whether the different characteristics are associated with each segment. For example the researcher might examine whether people who want quality as opposed to low price differ in their geographic, demographic and psychographic makeup; all with the aim of tailoring specific marketing programs to suit particular segments of the market.

Boyd et al(1985:678) outlines the market segmentation process. The first step involves dividing the market into segments and identifying them in terms of their descriptors. These are usually physical characteristics, behavioral characteristics and product related characteristics which can be useful in describing the characteristics of the customers in a given market segment. Mahajan et al(1978:388) point out that individual users of a product have been found to differ in terms of their preferences and choice behavior in the marketplace. Blatberg et al(1976:36) have attributed these differences to a variety of structural and functional characteristics of the product and its users.

These descriptors which will be discussed in greater detail in Chapter 2 are such as customer needs, product usage, brand loyalty, purchase influence, innovativeness, geographical location, account type and size, etc. All of these are common to both industrial and consumer markets. Those peculiar to consumer markets are lifestyle and social demographic. The selection of meaningful descriptors is the first major step in the market segmentation process.

The next step determines whether and to what extent there are differences in the needs or benefits being sought by customers in the various segments. The benefits sought may vary by usage situation. Young et al(1978:406) contend that segmentation based on benefits desired is usually the most meaningful type to use from a marketing standpoint as it directly facilitates product planning, positioning and advertising communications.

The final step in the segmentation process is the evaluation of the present and future attractiveness of each segment through such measures as sales growth, competition, profitability, which are all used to judge the market attractiveness of each segment. This step leads to the formulation of a market segmentation strategy which specifies the allocation of resources across segments.

For the measuring of differences between segments, Wind et al(1978) proposed two basic approaches to segmentation:- a priori and clustering. Green(1977:61) also recognizes the flexible segmentation and the componential segmentation designs in addition to these. He however stresses the point that these last two are offshoots of the a priori and clustering based approaches.

In the a priori segmentation design, researchers start by segmenting a market on the basis of physical descriptors which are often socio-demographics. They then collect data to determine how the segments vary with respect to their purchasing behavior. The survey results show the segments' estimated size and their demographics, socio-economic, psychographic and other relevant characteristics.

The cluster based segmentation design groups prospective customers on the basis of their similarities with respect to benefits sought, attitudes, lifestyles and so on. Therefore, clustering based segmentation models differ from the a priori models only with respect to the way the basis of segmentation is selected. Under this approach, the number and types of segments are not known in advance and are determined from the clustering of respondents on their similarities on some selected set of variables, the common ones being needs, attitudes, lifestyle, other psychographic characteristics or benefits sought.

The last two designs, flexible and componential are recent developments and make extensive use of statistical methods and computer simulations. For the flexible segmentation design, in contrast to the a priori in which the segments are determined at the outset of the study and the cluster-based in which the selected segments are based on the results of the clustering analysis; the flexible segmentation model offers a dynamic approach to the segmentation problem. Using this approach, one can develop and examine a large number of alternative segments, each composed of those consumers or organizations exhibiting a similar pattern of responses to new products.

The componential segmentation design shifts the emphasis of the segmentation model from the partitioning of a market to the prediction of what person type, as described by a particular set of demographic and other psychographic attribute levels, will be most responsive to whichever type of product feature. In this, the researcher is interested in developing, in addition to parameter values for the product stimuli, parameter values for various respondent characteristics e.g demographic, product usage and so on.

1.11 Some Practical Examples of Market Segmentation:

Many studies in this area have been carried out in the United States and other countries. Indications are that market segmentation is a practical concept there as the following examples show.

(a) Geographic Segmentation:

* A coffee manufacturing firm sells its coffee nationally but flavors it regionally. The coffee is flavored stronger in the West than in the East.

* A soup company has also appointed local area market managers and given them budgets to adapt the company's products and promotions to local conditions.

(b) Demographic Segmentation:

(i) Age and life cycle stage:

* A toy manufacturer discovered that consumer wants and capacities change with age and therefore designed different toys for babies as they move through the various stages from three months to one year. The same has also been done for dog foods.

* Individuals under sixteen years do not represent a market for automobiles and elderly adults are not considered a major consuming group for athletic equipment.

(c) Psychographic Segmentation:

(i) Social class:- the social class has a strong influence on the person's preferences in cars, clothing, leisure activities, and so forth. Marketers design products and services for specific social classes.

(ii) Lifestyles:- peoples' interest in various goods is influenced by their lifestyles and the goods they consume express their lifestyle.

* Manufacturers of women's clothing are designing different clothes for the "plain woman", the "fashionable woman"' and the "manly woman".
* Cigarette companies are developing brands for the "defiant smoker"' the "casual smoker" and the "careful smoker".

(d) Behavioral Segmentation:

(i) Occasions:- air travel is triggered by occasions related to business, vacation, or family. Charter airlines use this form of segmentation.

(ii) Benefits:- Yankelovich in his study of the watch industry found that 23 percent bought for lowest price, 46 percent for durability and general product quality, 31 percent as symbols of some important occasion. As a result, the US Time Company made a departure from the traditional approach to watch making concentrating on the first two benefits (low price and durability) and selling through mass merchandisers. It was a success story.

Other examples can also be cited. In the auto industry for example, the Volkswagen and Mercedez manufacturers have targeted their products to specific markets with divérse needs. In the case of the Volkswagen, it is tailored to the economy minded person who wants a vehicle for its functional value as opposed to the Mercedez consumer who is usually well off and buys the vehicle not for its functionality only but also for its status enhancing value. The same applies to branded consumer products whether for the consumer or industrial markets. From the simplest of products by way of manufacture to the most hi-tech like computers and stereo players; market segmentation has been practiced to the maximum especially in the Western economies where the markets are very competitive.

1.12 Conclusion:

After establishing the marketing objectives one of the primary functions of marketing managers is to define their target markets. Segmentation aids managers in selecting marketing targets because it involves the examination of various potential customer profit and market share opportunities. It allows marketing managers to accurately define target consumers and zero in on understanding the need of a specific group and devising marketing programs for the unique groups. In the long run, segmentation allows management to identify its best profit opportunities and results in a more efficient allocation of resources since the firm will devote its limited resources to the most profitable market segments the firm intends to pursue.

1.2 STATEMENT OF THE PROBLEM

The preceding background has mainly dwelt on laying the conceptual framework of the concept of market segmentation as an important marketing strategy in today's competitive marketing environment. Its main dimensions especially as appertains to the current study have also been highlighted. Its practicability in the advanced market economies has also been demonstrated by the few examples cited above. Its usefulness is also not in dispute as explained above.

With this background, one can then wonder at the practical application of this concept especially in the local setting: the practicability of identifying and segmenting a market, the segmentation variables used, the rationale for such variables, and so forth. This is the first problem which motivated the researcher to undertake this study and seeks to establish whether medium and large scale manufacturing firms especially in the consumer goods industries in the country actually practice market segmentation as done in the advanced market economies. No study that I know of has been undertaken in this area locally and so the current study is intended to fill this void.

Given the advanced nature of the market economies' markets as compared to ours in the Developing World, it is doubtful whether the concept of market segmentation can be practiced in the same way as done elsewhere without some modifications. Given the different cultural backgrounds, the structure of our economies, the low levels of education, low incomes; the researcher highly doubts whether some of the segmentation variables like lifestyle and social class to name but two used in these economies would actually make sense in our context.

Finally, it is evident from these economies' experience that as the economy becomes more open, as trade becomes more liberalized, as the market place becomes more sophisticated, competitive pressure is brought to bear on the firm to somehow differentiate its offer from the competitors', hence the need to segment the market. The typical Kenyan firm is already in this situation given the widening of their markets due to the establishment of the PTA and the liberalization of the economy as spelled out in the policy documents among other measures. Therefore, a study on the use of market segmentation by Kenyan manufacturing firms is most appropriate at this point in time.

The issues raised above motivated this study and it is on the basis of these that the following objectives of the study were formulated.

1.3 OBJECTIVES OF THE STUDY

1. (a) To find out whether and how Kenya's medium and large scale manufacturing firms segment their markets.

(b) If segmentation is not practiced, find out the reasons why and the alternative strategies used.

2. If practiced:

(a) find out the main methods and segmentation variables used

(b) find out the reasons why these particular methods and variables are used in the Kenyan context.

1.4 IMPORTANCE OF THE STUDY

1. The importance of market segmentation as a marketing strategy cannot be overemphasized in today's competitive marketing environment. It is therefore surprising that very little attention has been directed to this area in the past. With this in mind, this exploratory study is aimed at arousing the interest of the academics who will hopefully direct their attention to more specific aspects of this topic in future. These specific areas will be pointed out under the section on direction for further research.

2. The study also aims at creating awareness in the marketers in the manufacturing firms sampled and also others who can then find out about the merits of market segmentation and use it so as to gain the competitive edge over competitors.

3. The findings, conclusions and recommendations from this study, it is hoped, will also be of great use to the business community in general who will learn the benefits of market segmentation and recognize it as a viable competitive tool.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

2.11 Definition

Unlike some other concepts in marketing theory, many authors are in agreement as far as the definition of market segmentation is concerned. Beckman et al (1982) defines market segmentation as the process of dividing the total market into several homogeneous groups with similar interests in a particular product or service category. Kotler(1967) on the other hand asserts that segmentation means dividing a market into meaningful buyer groups with the purpose of determining differences among buyers which may be consequential in choosing among them or marketing to them. Basically, these definitions are identical and it is for this purpose that the definition by McDaniel(1982:94) is the working definition for this study as it brings out the main issues more clearly. According to him market segmentation is the process of dividing a heterogeneous market into segments which are identifiable for the purpose of designing a marketing mix to meet the needs of consumers in segments attractive to the firm.

2.12 Market Segmentation vs Market Differentiation

It is necessary to distinguish these two terms which are often used synonymously in practice though erroneously as they are not synonymous. As shown above, market segmentation is predicated upon examining a market on one or several criteria and then designing a marketing mix to reach the target market. Wind(1978:317) viewed market segmentation as one of the major ways of operationalizing the marketing concept. Market segmentation is thus a market oriented strategy.

McDaniel(1982), Kotler(1988) assert that product differentiation has a different conceptual basis. The major objective here is to distinguish one firm's product from anothers'. The bases for product differentiation are usually brand name, minor ingredients or product feature variations and packaging. Promotion is the mainstay of product differentiation. In a nutshell then, product differentiation begins with the product and asks: "How can we make this one different from all the rest?" Market segmentation on the other hand begins with the total market and asks: "What are the characteristics of overall market and how can meaningful segments be reached?" Market segmentation then goes much deeper than product differentiation.

2.2 RATIONALE FOR MARKET SEGMENTATION

2.21 Importance of Market Segmentation

As stated in the background, the concept of market segmentation has grown in importance since the pioneering article by Wendell Smith(1956:3) and as judged by the proliferation of articles in this area.

Beckman et al (1989), Kotler (1989) have proposed that a company cannot normally serve all the customers in a broad market. This is because the customers may be too numerous, widely scattered and varied in their buying requirements. Furthermore, Mahajan et al (1978:338) also contend that some competitors will be in a better position to serve particular customer segments of the market and so instead of trying to satisfy all consumers the firm needs to identify the most attractive market segment that it can serve effectively.

With this in mind, Reynolds (1965:107), McDaniel(1982:85) extend this further. They state that given the primary function of marketing managers is to define their target market after establishing marketing objectives, segmentation will assist them in selecting market targets because it involves the examination of various potential customers profit and market share opportunities. It allows marketing managers to accurately define target consumers and zero in on understanding the needs of a specific group. Johnson (1971:13) further states that in the long run, segmentation allows management to identify its best profit opportunities and results in a more efficient allocation of resources.

Yankelovich (1964), Johnson(1971), Kotler(1989) give the following as some of the ways in which effective market segmentation will help the firm. It enables the firm to:-

(i) direct the appropriate amounts of promotional attention and money to the most potentially profitable segments of the market.

(ii) design a product line that truly parallels the demand of the market.

(iii) catch the first sign of a major trend in a swiftly changing market and thus give it time to prepare to take advantage of it.

(iv) choose advertising media more wisely and determine the proportion of the budget that should be allocated to each medium in the light of anticipated impact.

(v) correct the timing of advertising and promotional efforts so that they are massed in the weeks, months and seasons when selling resistance is least and responsiveness is likely to be at its maximum.

(vi) understand otherwise seemingly meaningless demographic market information and apply it in scores of new and effective ways.

These advantages of segmentation hold in the case of both packaged and hard goods, and also for commercial and industrial products as well as consumer products.

2.22 <u>Some Limitations of Market Segmentation</u>:

Given the foregoing, one may be forgiven for assuming that market segmentation is a cure-all and it can be equally applied for all companies, in the same manner. This is not so. Resnik et al(1978:100), McDaniel (1982:95) points out that market segmentation increases certain costs e.g the more differentiated the products are, the fewer the economies of scale and the higher the production and inventory costs. Greater product variety often means greater product complexity and hence more problems. Different promotional strategies for various segments may mean higher promotional expenditure. If different distribution channels are required, the cost also be higher.

Young et al(1978:405) add that in addition to the above, some markets may be too small to be segmented on an economical manner. A market may not have enough distinguishing characteristics to be segmented. In some cases the manager may discover a basis for segmentation but may not be able to identify and reach the target consumer or as happens in some cases, heavy users may make up such a large proportion of the sales volume that they are the only relevant target.

The majority fallacy has also been cited as a problem in market segmentation. The marketing manager should avoid this fallacy by entering a market only if it is large enough to meet the profit goals. This does not mean that the firm should always target its effort to the biggest, most easily accessible market segment, the reason being that competitors will follow the same kind of logic which will mean everyone fighting for the same group of customers.

Another limitation which has come up in the highly segmented markets is a situation whereby customers have become more sensitive to the relationship between price and satisfaction in purchase decisions. In some markets consumers are increasingly willing to accept products less tailored to their individual needs if substitutes are available at a lower price. Resnik et al(1978:100) have documented this phenomenon and termed it countersegmentation. It is the strategy of reducing the number of market segments and according to McDaniel et al(1982:98), it is a problem facing marketers in some competitive industries. It can be accomplished by eliminating products that serve specific segments, and therefore dropping the segment or clustering existing segments to form other segments. It is the opposite of market segmentation.

2.3 MARKET SEGMENTATION PRACTICE

2.31 The Market Segmentation Process

As mentioned in the background, most organizations followed the traditional strategy of market aggregation in which a single brand is mass produced and mass distributed to a large group that is seen as having the same wants and needs. As competition intensified, some marketers recognized the value of product differentiation--the use of different product, pricing, distribution or promotional features to establish the superiority and preferability of the firm's brand. Market aggregation then differentiates the firm's brand from all other brands of an essentially similar products e.g gasoline or milk. In contrast, market segmentation distinguishes among groups of customers and their needs. Lazer and Culley(1983:186); Beckman et al (1989:117) give the rationale for using market segmentation rather than the aggregation approach as that the organization is more likely to prosper if it develops a marketing mix that satisfies some particular segment or segments of a total market than if it attempts to design a mix to satisfy everyone.

Inasmuch as market aggregation did work for most organizations for some time and still works well for some today, not all markets need be segmented. Young et al (1978:405) probably give the best criteria of when to segment a market. Under the following situations, the market should not be segmented.

(i) When the market is so small that marketing to portion of it is not profitable.

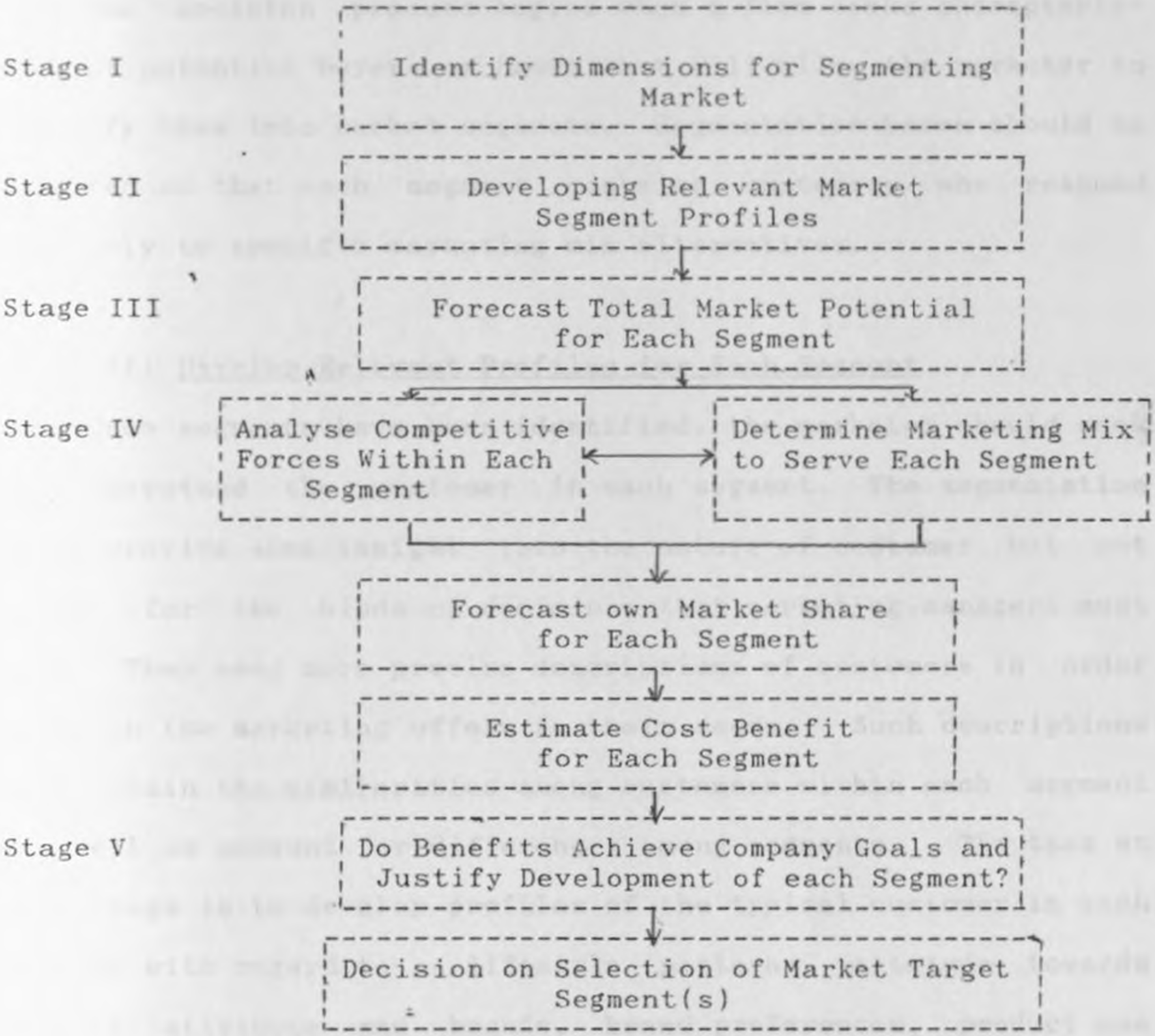
(ii) When heavy users make up such a large proportion of the sales volume that they are the only relevant target.

(iii) When the brand is the dominant brand in the market.

If these three are not applicable, the market can be segmented. Lazer and Culley (1983:187) also give certain conditions under which market segmentation should be practiced e.g consumers' sensitivity to changes in marketing strategies should very from one segment to another, the population of each segment should be identifiable in terms of measurable characteristics and also specialized advertising and promotional media should be available so that different segments can be reached efficiently.

As will be discussed later, the marketer has a number of potential bases for determining the most appropriate market matching strategy e.g geographic, demographic, product attributes and psychographic bases are often utilized in converting heterogeneous markets into specific segments that serve as market targets for the consumer oriented marketer. A multistage decision process is then followed to segment the market. Kotler(1989:284) advocates three stages viz. survey stage, analysis stage and the profiling stage. Beckman et al(1989:121) suggest a five stage decision process. This best illustrated in the following diagram.

THE MARKET SEGMENTATION DECISION PROCESS



(Adapted from Beckman et al (1989:122)

STAGE I : Select Market Segmentation Bases

The decision process begins when a firm seeks characteristics of potential buyers as bases that will allow the marketer to classify them into market segments. Segmentation bases should be selected so that each segment contains customers who respond similarly to specific marketing mix alternatives.

STAGE II: Develop Relevant Profiles for Each Segment

Once segments have been identified, the marketer should seek to understand the customer in each segment. The segmentation bases provide some insight into the nature of customer but not enough for the kinds of decisions that marketing managers must make. They need more precise descriptions of customers in order to match the marketing offers to their needs. Such descriptions can explain the similarities among customers within each segment as well as account for differences among segments. The task at this stage is to develop profiles of the typical customer in each segment with regard to lifestyle patterns, attitude towards product attribute and brands, brand preferences, product use habits, geographic location, demographic characteristics and so on.

STAGE III: Forecast Market Potentials

Under this third stage, market segmentation and market opportunity analysis are used together to produce a forecast of market potential within each segment. The market potential is the upper limit on the demand that can be expected from a segment and combined with data on the firm's market share, the sales potential.

This stage is management's preliminary go or no-go decision point as to whether the sales potential in a segment is sufficient to justify further analysis. Some segments will be screened out because they represent insufficient potential demand; others will be sufficiently attractive for the analysis to continue.

STAGE 1V: Forecast Probable Market Share

Once the market potential has been estimated, the share of that market that can be captured by the firm must be determined. This will call for an analysis of competitors' position in target segments. At the same time, the specific marketing strategy and tactics should be designed for these segments. These two activities lead to the analysis of the costs of tapping the potential demand in each segment.

STAGE V: Select Specific Market Segments

This is the final step and the information, analyses, and forecasts accumulated through the process allow management to assess the potential for the achievement of company goals and justify the development of one or more market segments. Demand forecasts combined with cost projections are used to determine the profit and return on investment that can be expected from each segment. An analysis of marketing strategy and tactics will determine the degree of consistency with corporate image and reputation goals as well as the unique corporate capabilities that may be achieved by serving a segment. These assessments will determine management's selection of specific segments as market targets.

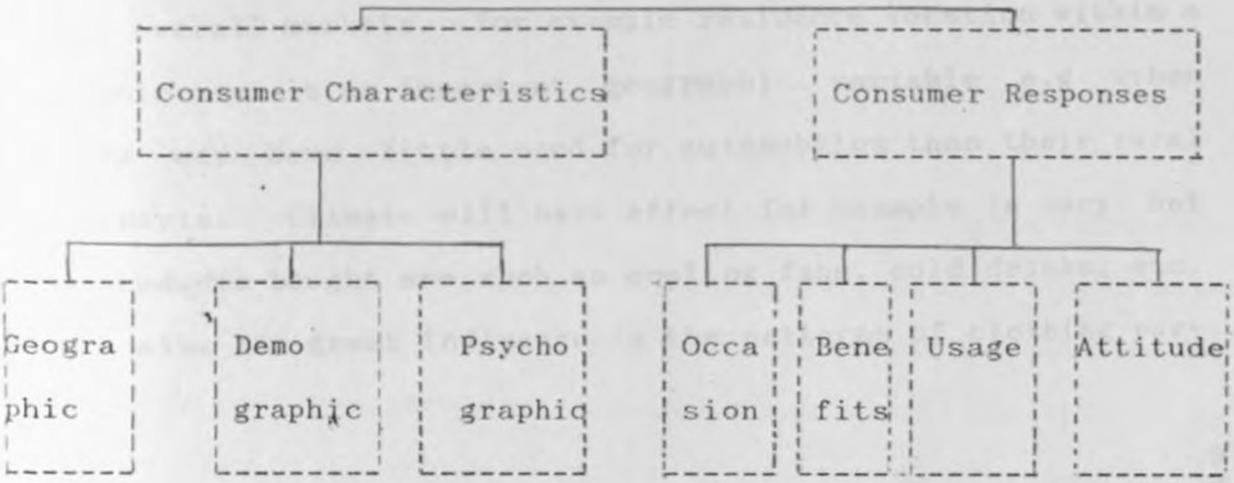
2.32 Bases For Segmenting Consumer Markets

The need to segment a market arises because the market for virtually any product is not an amorphous mass of people or firms but a set of subgroups with differing needs and desires. Marketers have long discovered the obvious fact that a single marketing mix cannot satisfy the diverse needs, the characteristics and the likes and dislikes and purchasing behavior of a market. The task confronting the marketer has been to evolve a framework or some guidelines upon which segmentation is to be done.

In analyzing the bases for segmenting consumer markets, various authors adopt different approaches. McDaniel (1989:96) simply divides them into the five basic forms viz. (a) demographic i.e age, sex, income; (b) geographic i.e by region, urban or rural (c) psychographic i.e lifestyle or personality; (d) benefit i.e tastes good, feels good, etc; (e) volume i.e heavy user, light user. Beckman et al (1989:91) merges the last two above thereby ending with Demographic, Geographic, Psychographic and Benefit Segmentation bases.

Perhaps the best classification is by Kotler (1989:286) and Lazer and Culley (1983:192). These authors make an attempt, though much more clearly in Kotler (1988) to divide the variables into two broad groups. These are consumer characteristics like geographic, demographic and psychographic variables and consumer responses to the product such as benefits sought, use occasions and brand loyalties.

Two Major Approaches to Market Segmentation



(Adapted from Kotler (1989:286)

A. CONSUMER CHARACTERISTICS

(1) Geographic Segmentation:

This calls for dividing the market into different geographical units such as nations, regions, provinces or neighborhoods. In a country with diverse geographical characteristics, the firm can decide to operate in one or a few geographic areas or operate in all but pay attention to variations in geographic needs and preferences. It will for example be possible to produce a product suiting say the hot and dry conditions in a particular region. Depending on the competitiveness of a particular product, it may be possible to subdivide a city into different geographical areas so as to reach particular segments.

Geographic segmentation is one of the oldest bases for segmenting overall markets. For example residence location within a geographic area is an important geographic variable e.g urban dwellers may have little need for automobiles than their rural counterparts. Climate will have effect for example in very hot areas products bought are such as cooling fans, cold drinks, etc. Climate also has great influence in the patterns of clothing purchases.

(2) Demographic Segmentation:

Under demographic segmentation, the market is divided into groups on the basis of demographic variables such as age, sex, family size, family life cycle, income, occupation, education religion, race, and nationality. Studies carried out by Green (1977:62), Claycamp et al (1968:390), Frank et al (1972) maintain that demographic segmentation is among the most popular segmentation basis. Kotler (1967:73) asserts that these are most commonly used because they have proved to be good predictors of differential buyer response, whereas in some cases they are used because they are the only variables for which data is easily available. Beckman et al (1982:144) supports Kotler (1967) by giving the reasons as:- the ease to identify and measure, the fact that these variables are associated with the sale of many products and services and also because they are typically referred to in describing the audiences of advertising media so that media buyers and others can easily pinpoint the desired market target.

For these reasons, it is necessary to look at each of these variables in turn.

(a) Age and Life Cycle Stage:

The importance of these variables arises due to the fact that consumer wants and capacities change with age. Even a six-month old infant differs from a newly-born one and both differ from older children and adults in their needs and desires. In the same vein, those under sixteen do not represent a market for automobiles and elderly adults are not considered a major consuming group for athletic equipment.

The family life cycle is the process of family formation, development and dissolution. Using this concept, the marketing planner combines the family characteristics of age, marital status, presence or absence of children, and ages of children in developing the marketing strategy.

The family life cycle stage is important because the needs and the purchase capability changes as the family develops and matures. Thus, newly weds will have great demand for home-making products such as furniture, television sets and other consumer durable products. Come the children and their needs are expanded to include items such as baby cots, baby walkers, baby foods and so on. These needs of a family change constantly throughout the family life cycle.

However, with technological advancement and health awareness, age and life cycle have become tricky variables to use. Kotler (1988:288) cites a study and concludes that age has become a poor predictor of the timing of life events, as well as a poor predictor of a person's health, work status, family status, and therefore of a person's interests, preoccupations and needs. For example we have multiple images of persons of the same age: the 70 year old in a wheelchair, and the 70 year old on the tennis court. There are also 35 year olds sending children to college and 35 year olds furnishing the nursery for new borns.

(b) Sex

One of the oldest segmentation bases is sex segmentation which has long been use in clothing, haircare products cosmetics and magazines. Many products are sex specific and so segmentation on the basis of sex comes rather easily to the marketer.

The challenge confronting the marketer of any product is to take advantage of sex segmentation. The example given by many authors is that of the cigarette market where specific brands have been introduced in the developed market economies with appropriate flavor, packaging and advertising cues to reinforce the relevant gender image. The auto industry is also beginning to be responsive to both sexes. Traditionally, cars were designed to appeal primarily to males but the growing importance of the female market segment has led some manufacturers to incorporate features attractive to women e.g small and slim looking cars.

(c) Income:

In virtually all product and service categories segmentation by income is a long-standing practice. Consumers with different purchasing power demand different product as befits their status in life. Income as a consumer-descriptive variable has certain problems. Lazer and Culley (1983:190) contends that before a marketer can use income as a segmentation base, four measurement issues must be resolved:-

(i) the most appropriate unit of analysis must be determined i.e should income be measured per capita, per receiver, per household, per family or per spending unit?

(ii) he must determine the most appropriate type of income for the analysis. For example should the consumers' gross income, disposable income or discretionary income be used for the analysis?

(iii) the nature and extent of the relationship between income, wealth, credit potential and consumers' ability and willingness to buy should be established.

(iv) income determination may entail analyzing national or regional differences in income levels, distribution and purchasing poser.

In the light of the foregoing, Kotler (1989:289), Frank et al (1968:276) argue that income will not necessarily predict the best customers for a given product. In addition, given the complexity of human nature and the diverse buying motives, one cannot clearly say which product is for which income groups.

Coleman (1961:171) carried out a study in this area and drew a distinction between the "underprivileged" segments and "overprivileged" segments of each social class but it was inconclusive because a member of one segment will purchase a highly priced or lowly priced product depending on their motivations and inclinations.

(d) <u>Multiattribute Demographic Segmentation</u>:

Stasch et al (1987) contends that no firm segment its markets exclusively on the basis of one variable but will more often than not segment a market by combining two or more demographic variables. For example age and income combined have been used to segment a bank's retail customers. Age, sex, income can also be combined to arrive at the particular segments of interest for a certain product. It is very important for the marketer to identify the combination of variables relevant to his area of interest because this will influence his product offer and communication mix.

(3) <u>Psychographic Segmentation</u>:

This is another important classification of the segmentation variables used by marketers. Psychographic refer to the behavioral profiles of different consumers. These profiles are generally developed from quantitative research by asking consumers for their agreement or disagreement with several hundred statements dealing with the activities, interests and opinions.

These provide a much richer description of potential market target and assists promotional decision makers in matching the image of the company and its product offerings with the type of consumer using the product. Though geographic and demographic segmentation have been used traditionally as the bases for segmentation, marketers have long recognized the need for fuller, more life like portraits of consumers for use in developing their marketing programs. McDaniel (1982:97) asserts that demographics provide the skeleton, but psychographics adds the meat to the bones. Among the psychographics are some specific variables such as social class, lifestyle and personality.

(a) Social Class:

To a certain extent, all human societies exhibit some measures of social stratification, the most common manifestation of this being social classes. These are relatively homogeneous and enduring divisions in society, which are hierarchically ordered and whose members share similar values, interests and behavior. Social classes have a number of characteristics e.g persons within each social class tend to behave more alike than persons from two different social classes; persons are perceived as occupying inferior or superior positions according to their social class; third, a person;s social class is indicated by a number of variables such as income, wealth, education and value orientation rather than by a single variable; and lastly, individuals can move from one social class to another in either direction during their lifetime. Studies by Coleman (1983:265) identified and described the characteristics of seven major American social classes. These were Upper uppers (1 percent), Lower Uppers (2 percent), Upper Middles (12 percent), Middle Class (31 percent) Working Class (38 percent) and Lower Lowers (7 percent).

Social class is important to the marketer because different social classes show distinct product and brand preferences in such areas as clothing, home furnishings, leisure activities and automobiles. The social classes differ in their media preferences, language differences, education, tastes, and so on. Many firms design products and/or services for specific social classes building in those features that appeal to a target social class.

(b) Lifestyle:

A person's lifestyle is the person's pattern of living in the world as expressed in the person's activities, interests and opinions. Lifestyle portrays the person as he interacts with his environment. It reflects beyond the person's social class on the one hand and his personality on the other. Peoples' interests in various goods is influenced by their lifestyle and the goods they consume express their lifestyle. Today's marketers are increasingly segmenting their markets by consumer lifestyle especially the makers of cosmetics, alcoholic beverages, furniture are all seeking opportunities in lifestyle segmentation.

(c) Personality:

Each person is unique and this will influence his or her buying behavior. Kotler (1988:185) defines personality as the person's distinguishing psychological characteristics that will lead to relatively consistent and enduring responses to his or her environment. Marketers have used personality variables to segment their markets by endowing their products with brand personalities that correspond to consumer personalities.

It is then possible to design the product and tailor the communication to the target market. Kotler (1988:291) also reports the findings of a study which reported developing successful market segmentation strategies based on personality traits in such product categories as women's cosmetics, cigarettes, insurance and liquor.

B: BEHAVIORAL SEGMENTATION

This is the second major segmentation basis and under which are certain segmentation variables. Behavioral segmentation calls for dividing the buyers into groups on the basis of their knowledge, attitude, use, or response to a product. Green (1977:62), Kotler (1988:291), Mahajan et al (1978:338) all agree that behavioral variables are the best starting point for constructing market segments.

(a) Occasions:

The use of occasions as a segmentation variable rests on the premise that buyers can be distinguished according to the occasions when they develop a need, purchase a product, or use a product. For example, air travel is triggered by occasions related to business, vacation or family and hence an airline can specialize in serving one of these segments for whom the occasion predominates.

Marketers are increasingly using occasion segmentation to expand product usage. Instead of looking for product specific occasions, firms are now looking at the major occasions that mark life's passages and identify whether they can be met by product and/or service bundles. The occasions of interest are such as marriage, illness, change in career, retirement, etc.

(b) <u>Benefits</u>:

Young et al (1978:408), Yankelovich (1964:86); Wind (1978:318) in their various studies show the importance of benefit segmentation. This type of segmentation classifies buyers according to the different benefits that they seek from the product. Among the ten market studied by Yankelovich (1964:84) his study of the watch industry concluded that approximately 23 percent of the buyers bought for lowest price, another 46 percent bought for durability and general product quality, and 31 percent bought watches as symbols of some important occasion.

He asserted that defining and quantifying such segments is helpful in marketing planning especially of a watch company's product happens to appeal to one segment or if the line straddles the three segments thus failing to appeal effectively to any. The U.S. Time Company used these results and decided to focus on the first two segments by creating Timex watches and selling them through mass merchandisers unlike the other producers who produced expensive watches stressing prestige and selling through the jewelry stores. This strategy paid dividends and it become one of the world's largest watch companies.

To succeed in benefit segmentation, the marketer should determine the major benefits that people look for in a particular product class, the kinds of people who look for each benefit and the major brands that deliver each benefit.

A study on the toothpaste market by Haley (1963:30) further shows the usefulness of benefit segmentation. He discovered four benefit seeking segments on economy, protection, cosmetic and taste. He went further and showed that each benefit seeking group had particular demographic, behavioristic and psychographic characteristics.

The importance of benefit segmentation is such that it is widely practiced at present. Though the rule of thumb is for a firm to strive to satisfy one benefit segment, Aquafresh toothpaste is promoted as offering three benefits viz "anticavity protection," "better breath," and "whiter teeth" and this was visually operationalized by making the toothpaste squeeze out in three colors simultaneously thus confirming the three benefits. This is also an excellent example of countersegmentation as explained by Resnik et al (1977:100) as it involved clustering three business segments together. This is clearly the challenge for marketers today as consumers prefer "benefit bundles" as opposed to single benefits from the product.

(c) User Status:

Beckman et al (1983:149), Kotler (1988:293), McDaniel (1982:104) assert that marketing managers may divide potential segments into two categories:- users and nonusers. The users can then be subdivided into heavy, moderate and light users. In a study by Warren (1974:72) in several product markets in the United States showed that heavy users are often a small percentage of the market but account for a high percentage of total consumption. The heavy users often have common demographics, psychographic and media habits which the marketer can exploit to enhance the sale of his product.

(d) Loyalty Status:

Consumer loyalty patterns have also been exploited as a basis for segmenting markets with reasonable degree of success. Kotler (1988:294) claims that consumers can be loyal to brands, stores and other entities. However, brand loyalty is of more significance to the firm. Brown (1952) identified four loyalty statuses as follows:- hard core loyals who are consumers with undivided loyalty to a brand; soft core loyals which represents a consumer with divided loyalty between two or more brands; shifting loyals refering to those consumers who shift from favoring one brand to another and lastly, the switchers who show no loyalty to any brand.

Each market consists of all these classes of buyers and it is up to the marketing manager to formulate the relevant marketing strategies to attract or even maintain the relevant target group. He should examine the soft core loyals as these will give the firm the brands most competitive with its own. By looking at those customers who are shifting away from its brand, the firm can learn about its marketing weaknesses. All these groups are important as they present invaluable information to the firm.

(e) Buyer Readiness Stage and Attitude towards Product:

These two are also important to a certain degree in the segmentation of markets. At any one time people are in different stages of readiness to buy a product. some may be unaware of the product; some aware; some informed; some interested; some desirous and some intending to buy. The marketing manager should have an idea of the relative numbers in each category as this will influence his marketing programs.

As for attitude towards product, the marketing program will be influenced by whether the consumers are enthusiastic about product, positive, indifferent, negative or hostile to the product. The reasons behind each of these attitudes will be very important because it will show the strengths and weaknesses of the firm's offer and hence, the success of the firm's marketing program.

2.4 SEGMENTING INDUSTRIAL MARKETS

Industrial marketing is the marketing of goods and services to industrial and institutional customers. These are agriculture, forestry and fisheries; Mining; Construction; Manufacturing; Transportation; Wholesale trade; Retail trade; FInance, insurance and real estates; Services; Public Administration. All these customers have the characteristics that: (i) they purchase goods and services for production of their own goods and services, (ii) they buy for resale to others. Their demand for certain products is derived demand i.e it is dependent of the final consumer desires for various products.

Just as in the consumer goods marketing, market segmentation is also important in the industrial goods marketing. The starting point in industrial marketing is having clear, well-defined, and measurable goals. Once objectives are established, the firm can begin developing a target market and designing a marketing mix to reach the target market.

The firm must define its target market on two levels i.e macro and micro levels. For macrosegmentation, this establishes general areas of market potential. The bases of macro segmentation include such variables as SIC codes, size of firm, location, product applications. If these sufficiently explain differences in buyer behavior, further segmentation is not necessary and the marketing mix is formulated on the basis of these.

The microsegments are groups of industrial purchasers with similar buyer behavior, within a macrosegment. These are resorted to if macrosegmentation as done above is not sufficient. The important variables are (i) characteristics of the buying organization, (ii) characteristics of the buying center, (iii) characteristics of the individual decision participants. Webster (1979:78) identifies the following variables for segmenting industrial markets.

VARIABLES INFLUENCING INDUSTRIAL MARKET SEGMENTATION

I Characteristics of the Buying Organization:
- A. Type of Organization - manufacturing firm, educational institution, government agency, etc.
- B. Organization "demographics" e.g number of employees, annual sales volume, industry affiliation (SIC group), geographic location, number of plants.
- C. Product application i.e end use
- D. Type of buying situation
- E. Degree of source loyalty
- F. Existence of purchasing contracts of various kinds
- G. Presence or absence of reciprocity

II Characteristics of the Buying Center:
- A. Composition - buying roles
- B. Stage in the buying decision process
- C. Type of uncertainty perceived in the buying center i.e need, market or transaction uncertainty
- D. Degree of decentralization - locus of buying responsibility within the organization
- E. Task assigned to the buying center depending on the specific problem being solved
- F. Time pressure felt by members of the buying center
- G. Type of conflict resolution characteristically used in the buying center e.g persuasion, compromise, etc.
- H. Decision rules and characteristics types of purchasing strategies used.

III Characteristics of Individual Decision Participants:
- A. Demographics e.g age, occupation, education, industry, experience
- B. Organizational role:- position in organization and with buying center
- C. Psychographics - attitudes toward and preferences for suppliers and brands
- D. Perception of rewards or punishment for risk taking
- E. Individual's "loyalty domain" interactions with and sentiments towards other members of the buying center
- F. Buying criteria - reliability, price, product quality

Source: Adapted from Webster (1979:78)

Obtaining the data for the microsegments is a more arduous task than is the case with the macrosegments. The firm is forced to make use of market research to obtain the kind of data required. Microsegmentation is of more strategic importance and decisions influenced by segment differences at the micro level include selecting individuals in the buying organization upon whom to make sales calls, design of sales presentations to stress specific product features, selection of advertising media, etc.

The importance of market segmentation in these industries cannot be overemphasized. It enables the marketing manager to define the greatest sales and profit opportunities. He must examine his costs and revenues. High profit potential market segments with heavy competition may be less attractive than segments with moderate profit potential and no competition. By evaluating these factors, the marketing manager will maximize his firm's profits and assure long-term profitability.

2.5 THE MEASUREMENT OF DIFFERENCES BETWEEN SEGMENTS

2.51 TRADITIONAL APPROACHES

There are two major traditional approaches used to identify and measure differences between market segments. Wind (1978:317) identified and proposed a priori segmentation design and c luster based segmentation designs.

1. <u>An a priori segmentation design</u>:

Under this approach researchers start by segmenting a market on the basis of physical descriptors -- usually socio-demographics, and then collect data to determine how the segments vary with respect to their purchasing behavior. Management decides on a basis of segmentation such as product purchase, loyalty, customer type or any other factor. The survey results will then show the segment's estimated size and their demographic, socioeconomic, psychographic and other relevant characteristics.

A priori segmentation models have as the dependent variable (basis of segmentation) either product-specific variables (e.g product usage, loyalty, etc) or general customer characteristics (demographic factors). Green (1977:64), Wind (1978:321) identify and discuss the typical research design for an a priori segmentation model. It involves seven stages as follows:-

(i) Selection of the a priori basis for segmentation

(ii) Selection of a set of segment descriptors (including hypotheses on the possible link between these descriptors and the basis for segmentation)

(iii) Sample design :- mostly stratified and occasionally a quota sample according to the various classes of the dependent variable

(iv) Data collection

(v) Formation of the segments based on a sorting of respondents into categories

(vi) Establishment of the (conditional) profile of the segments using multiple discriminant analysis, multiple regression analysis or some other appropriate analytical procedure

(vii) Translation of the findings about the segments' estimated size and profile into specific marketing strategies, including the selection of target segments and the design or modification of specific marketing strategy.

Practically, an example of a priori segmentation is when one classifies all respondents according to their stated favourite product. Having done this, some analytical tool such as multiple discriminant analysis might be used to determine whether the groups differ in terms of average demographic profiles or life style variables. The information gathered thus is important to advertising managers as it can help in identifying media vehicles which can best communicate with the firm's potential market. However, as Frank (1968:39) found out, a priori studies may not reveal in any precise sense the identity of groups that posses different purchase behavior patterns with respect to a particular product.

2. <u>Clustering based segmentation models</u>:

This is the other traditional model of market segmentation. Clustering-based segmentation models differ from a priori models only with respect to the way the basis for segmentation is selected. Instead of an a priori selection of a dependent variable, in the clustering based approach, the number and type of segments are not known in advance and are determined from clustering of respondents on their similarities on some selected set of variables. The most commonly used in the clustering based models are needs, attitudes, life styles and other psychographic characteristics or benefits sought. Frequently, the clustering procedure is preceded by a factor analysis designed to reduce the original set of variables. The research design for cluster based segmentation designs is the same as in the a priori segmentation design except for Step (v), the formation of segments.

In practice however, clustering based segmentation models occasionally are combined with some a priori bases. For example, the sample first can be divided into brand users and nonusers and then the respondents in each a priori segment can be clustered according to some other basis for segmentation such as needs, benefits sought and the like. This and similar hybrid approaches like Peterson's sequential clustering (1974:249) which involves clustering on demographic characteristics followed by attitudinal clustering within each demographic segment; and Blatberg and Sen multidimensional approach (1974:17) address the problem of intrasegment heterogeneity. These hybrid approaches are very useful in organizational segmentation in which the first level of segmentation is based on organizational demographic characteristics like SIC, size, followed by product usage or criteria used in the purchase decision. Despite their conceptual attractiveness, hybrid approaches require large sample sizes which may not be at times feasible.

2.52 MODERN APPROACHES

1. Flexible Segmentation Design:

Wind (1978:322) asserts that unlike the a priori segmentation in which the segments are determined at the outset of the study, and the clustering based segmentation in which the selected segments are based on the results of the clustering analysis, the Flexible segmentation model offers a dynamic approach to the segmentation problem. Using this approach, one can develop and examine a large number of alternative segments, each composed of those consumers or organizations exhibiting a similar pattern of responses to new "test" products. The flexible segmentation according to Spitz (1976:973) is based on the integration of the results of a conjoint analysis study and a computer simulation of consumer choice behavior as explained by Parker et al (1976:991).

According to Johnson (1974:121), conjoint analysis studies usually consist of three major parts as follows:

(i) preference ranking or rating of a set of hypothetical products, each described as different levels on two factors at a time or as different levels on the full set of factors.

(ii) perpetual ranking or rating of the current brands on the same set of attributes used in the preference task and

(iii a set of demographic and other background characteristics.

The simulation uses these three data bases as inputs and calls for the active participation by management in designing a set of new product offerings. The consumer choice simulator is based on the assumption that consumers choose the offering with the highest utility. THe simulator is designed to establish the following:

(i) the consumer's share of choices among the existing brands, which can be validated against current market share data if available.

(ii) the consumer's likely switching behavior upon the introduction of any new product.

This phase provides a series of brand switching matrices which management can select any cell or combination of cells as a possible market segment. Once these have been selected, the demographic, lifestyle, and other relevant segment characteristics can be determined by a series of multiple discriminant analyses which can also be incorporated in the simulation.

This segmentation approach departs from the traditional a priori and clustering based approaches by offering management the flexibility of "building up" segments based on the consumers' response to alternative product offerings. The other advantage is that having selected a segment, management has easy information on the estimated size of the segment and its discrimination characteristics.

2. <u>Componential Segmentation</u>:

This is the second model among the new approaches and was proposed by Green (1977:61). Its features are that it shifts the emphasis of the segmentation model from the partitioning of a market to a prediction of which person type (as described by a particular set of demographic and other psychographic attribute levels) will be most responsive to what type of product feature. It is disaggregative in nature. Unlike the a priori or other approaches, in componential segmentation persons who evince similar response profiles are not grouped together. On the contrary, their individual responses are further decomposed into component contributions that are person-related (e.g demographics, lifestyles) and contributions that are offering related (e.g attribute levels of the product or service).

The componential segmentation design is an ingenious extension of conjoint analysis and orthogonal arrays to cover not only product features but also person features. Under this approach, the researcher is interested in developing, in addition to parameter values for the product stimuli, parameter values for various respondent characteristics.

CHAPTER THREE

STUDY DESIGN

3.1 RESEARCH SETTING:

This study was carried out in Kenya and Nairobi was the particular area of focus. This was because Nairobi is the capital city of Kenya and hence many manufacturing firms and of diverse nature are concentrated here more than any other place in the country.

3.2 POPULATION:

This comprised of all the manufacturing firms with more than fifty employees within Nairobi. These are the medium and large scale manufacturing firms by Kenyan standards.[1]

3.3 SAMPLE AND SAMPLING DESIGN:

The nature of the study called for a stratified sample to ensure that the various industries of interest were represented. The procedure was as follows:-The firms are listed in the directory in alphabetical order and only those firms within Nairobi were to be considered. The sample size was 68 firms out of a

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1. Source: Central Bureau of Statistics; Directory of Industry 1986

population of 204 manufacturing firms in this category. After establishing how many firms were to be considered for each industry (See Appendix), the particular firms were picked using the random method. The sample size of 68 was not arrived at statistically but previous studies among manufacturing firms have used a sample of about one-third the population with reliable results.

3.4 <u>RESPONDENTS</u>:

The respondents were the marketing managers, sales managers, brand/product managers, depending on the designation in a particular firm. However, the respondents were executives familiar with the marketing and product strategies of the firm in question.

3.5 <u>DATA COLLECTION</u>:

Primary data was collected by means of the structured questionaire shown in the Appendix. A Likert-type scale was used to measure the influence of the various segmentation variables used in a particular firm. The drop-and-pick later method was used given the length of the questionaire and the information required. Any matters not clear were clarified by the researcher in subsequent visits to the firm.

3.6 <u>DATA ANALYSIS</u>

Given the nature of the study, the data collected was analyzed by way of summary statistics like tables, proportions, means and percentages. Further analysis to measure the significance of the differences of the mean scores between the different segmentation variables was also done using the t-test.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

This chapter contains the data extracted from the fully completed questionnaires. The data is summarized and presented for analysis in the form of tables which are based on the raw data in the appendix. This is done in four parts as follows. The first part contains a brief description of the respondents as appertains to their industry, the length of time the firm has been in operation and also their ownership characteristics. The second part deals with the importance attached to market segmentation by the firms in each industry which comprised of the sample. The third part and which has direct bearing on the objectives of the study deals with the practice of market segmentation as deduced from the answers by the respondents. This is done by examining the influence of various segmentation variables by industry. In addition, a further statistical test, the t-test was used to measure the differences between the mean scores of the various segmentation variables by industry. The fourth and final part deals with the problems encountered in the application of formal segmentation models in the Kenyan situation.

4.1 OVERVIEW

The aim of this section is to give an overview of the respondents who comprised the sample and who gave the data which will be analyzed in the following sections. As outlined in Chapter 3 under Study Design, the population comprised of all medium and large scale manufacturing firms within Nairobi as defined by the Central Bureau of Statistics. There are 204 firms in this category and a stratified sample of 68 firms, which is one-third the population was chosen. Out of these 68 firms, 36 firms responded favorably which is a total response rate of 52.9 percent. All the 36 questionnaires were properly completed for this analysis since most were filled with the assistance of the researcher. In particular, given that the sample was a stratified one, the researcher ensured that each industry was well represented in the 36 respondents to be analyzed. With this in mind, no industry is inadequately represented in the 36 respondents and hence the results are reliable.

TABLE 1
ANALYSIS OF RESPONDENTS

INDUSTRY	SAMPLE	RESPONSE	PERCENTAGE
1. Meat and Dairy Products	7	3	42.9
2. Canned Vegetables, Fish, Oil and Fats	6	3	50.0
3. Grain Mill Products	7	4	57.1
4. Bakery Products	8	3	37.5
5. Sugar and Confectionery	6	3	50.0
6. Chemical/Pharmaceutical	6	3	50.0
7. Beverages, Beer and Spirits	4	3	75.0
8. Clothing and Textiles	11	6	54.5
9. Footwear	3	3	100.0
10. Cosmetics and Soaps	10	5	50.0
Total	68	36	
Total Response Rate: 52.9%			

Source: Research Findings

Table 1 shows the analysis of the respondents. First of all it shows the number of firms each industry contributed to the sample and also the number of respondents from each stratification. Hence, the Meat and Dairy Products Industry had 7 out of the 68 firms in the stratified sample and 3 are to be analyzed in this study, which is a response rate of 42.8 percent. In the same way, Bakery Products contributed 8 firms while 3 responded in time for this analysis, a response rate of 37.5 percent. The rest of the table is interpreted in a similar manner for all the 10 industries chosen for the study.

The most outstanding response was from the Footwear industry where all the 3 firms in the sample responded favorably. The classification shown is according to the Kenya's Directory of Industry with the exception of Category 7 which was amended by the researcher to Beverage, Beer and Spirits due to unfavorable response from the two major tobacco firms which are usually classified under this category.

The rest of this chapter consists of the findings as laid out in the introduction above and especially as appertains to the fulfillment of the objectives of the study as detailed in Chapter Three.

TABLE 2
NUMBER AND OWNERSHIP CHARACTERISTICS OF THE RESPONDENTS

INDUSTRY	WHOLLY LOCAL	JOINT L/F	SUBSI-DIARY	TOTAL
1. Meat and Dairy Products	2	1	0	3
2. Canned Vegetables, Fish, Oil and Fats	1	2	0	3
3. Grain Mill Products	3	1	0	4
4. Bakery Products	2	1	0	3
5. Sugar and Confectionery	1	0	2	3
6. Chemical/Pharmaceutical	2	0	1	3
7. Beverages, Beer and Spirits	2	1	0	3
8. Clothing and Textiles	5	1	0	6
9. Footwear	1	1	1	3
10. Cosmetics and Soaps	2	2	1	5
Total	21	10	5	36
Percentages	58.3	27.8	13.9	100.0

L = Local Ownership
F = Foreign "

Source: Research Findings

The above table shows the number and ownership characteristics of the firms involved in the study. The researcher felt that it is very important to understand the industry and firms in the sample before any headway can be made in understanding the practice of market segmentation. Though the table is self explanatory, we should note that 21 firms or 58.3 percent of the firms to be analyzed are wholly locally owned. From the study, it was learnt that the owners are indigenous Kenyans or foreigners who have acquired the Kenyan citizenship. Another 10 firms (27.7%) are jointly owned by foreigners and indigenous Kenyans while 5 firms (13.8%) are subsidiaries of multinational firms. The subsidiaries were in the Sugar and Confectionery (2), Chemical/Pharmaceutical (1), Footwear (1) and Cosmetics and Soaps (1). The Footwear Industry was well balanced with a firm in each category whereas the majority in Grain Mill Products and Clothing and Textiles industries are wholly locally owned confirming Government emphasis on the need for strategic industries being in the hands of the indigenous people.

It is a well-known fact that well established and successful firms i.e firms which have been in operation for a long time have better product and marketing strategies. With this in mind, it is important to have an idea of the length of time the respondent firms have been in operation. Table 3 shows that 29 firms (80.6%) were over 20 years old and all 36 firms had been in operation for more than 15 years. We are therefore dealing with well established and successful firms and hence the information they gave, it is hoped, represented the practice in the respective industry in Kenya.

TABLE 3
NUMBER OF YEARS FIRMS HAVE BEEN IN OPERATION BY INDUSTRY

IND YEARS	1 - 5	6 - 10	11 - 15	16 - 20	Over 20
1. Meat and Dairy Products	0	0	0	0	3
2. Canned Vegetables, Fish, Oil and Fats	0	0	0	0	3
3. Grain Mill Products	0	0	0	0	4
4. Bakery Products	0	0	0	1	2
5. Sugar and Confectionery	0	0	0	1	2
6. Chemical/Pharmaceutical	0	0	0	1	2
7. Beverages, Beer and Spirits	0	0	0	0	3
8. Clothing & Textiles	0	0	0	1	5
9. Footwear	0	0	0	1	2
10. Cosmetics and Soaps	0	0	0	2	3
Total	0	0	0	7	29
Percentages	0	0	0	19.4	80.6

Source: Research Findings

4.2 FINDINGS ON THE PRACTICE OF MARKET SEGMENTATION

The foregoing on the whole explained the findings as appertains to the characteristics of the firms in the sample which the researcher felt are important to the study and as will be explained more in Chapter 5 on Discussions and Conclusions. Going by the objectives of the study, the following two sections are very important for this study.

4.21 <u>Importance Attached to Market Segmentation</u>

As a major observation in this study, it is remarkable to observe that no firm viewed the practice of market segmentation as unimportant to the production and marketing of its products.

TABLE 4
IMPORTANCE ATTACHED TO MARKET SEGMENTATION

INDUSTRY	DEGREE OF IMPORTANCE UN-IMPORTANT	IMPOR-TANT	VERY IMPORTANT	TOTAL
1. Meat and Dairy Products	0	0	3	3
2. Canned Vegetables, Fish, Oil and Fats	0	1	2	3
3. Grain Mill Products	0	3	1	4
4. Bakery Products	0	2	1	3
5. Sugar and Confectionery	0	2	1	3
6. Chemical/Pharmaceutical	0	0	3	3
7. Beverages, Beer & Spirits	0	1	2	3
8. Clothing and Textiles	0	1	5	6
9. Footwear	0	0	3	3
10. Cosmetics and Soaps	0	0	3	3
Total	0	10	26	36
Percentages	0	27.8	72.2	100

Source: Research Findings

Table 4 shows that 27.7 percent of the firms viewed market segmentation as important while 72.3 percent thought that market segmentation is very important to their product and marketing strategies.

A latter section will endeavor to show how market segmentation is practiced in the various industries but a preliminary observation of Table 4 shows that all firms in the Meat and Dairy Products; Footwear; and Cosmetics and Soaps categories viewed market segmentation as very important as did 66.7 percent of the Canned Vegetables, Fish, Oil and Fats and also Beverages, Beer and Spirits categories. 83.3 percent of the firms in Clothing and Textiles also viewed market segmentation as very important.

Some particular industries among them Grain Mill Products, Bakery Products and Sugar and Confectionery categories while acknowledging that market segmentation is important, nevertheless indicated that due to the nature of their industries (highly government regulated due to their strategic importance) they are not free to practice market segmentation to the same degree as the unregulated or less regulated industries.

In addition to the above, it was also found out that those firms who viewed market segmentation as very important were multi-product firms and this was especially so in the Meat and Dairy Products, Chemical/Pharmaceutical, Footwear and Cosmetics and Soap categories.

4.22 <u>The Influence of Various Segmentation Variables</u>

The information for this section was obtained from the responses to Question 14 in the Questionnaire. The question was meant to find out the extent to which certain segmentation variables influence the production and marketing of a certain firm's product. A seven point Likert-type Scale was used for this purpose with 1 being "Not At All" and 7 being "A Great Deal." The intermediate points were assumed to be a gradual progression from one extreme view to the other. The segmentation variables examined were Geographic, Demographic, Psychographic and Behavioral variables. These are the main descriptors of segmenting consumer goods industries as explained in Chapter Two on Literature Review. The results shown in Table 5 show the relative influence of the various segmentation variables by industry.

TABLE 5

MEAN SCORES OF THE RELATIVE INFLUENCE OF VARIOUS SEGMENTATION VARIABLES BY INDUSTRY

INDUSTRY	VARIABLES GEOG-RAPHIC	DEMO-GRAPHIC	PSYCHO-GRAPHIC	BEHA-VIOURAL
1. Meat and Dairy Products	5.3	6.3	5.6	4.3
2. Canned Vegetables, Fish, Oil and Fats	5.0	6.0	5.0	5.3
3. Grain Mill Products	4.5	4.3	3.8	4.3
4. Bakery Products	2.3	6.7	5.7	4.7
5. Sugar and Confectionery	3.7	6.0	4.3	5.3
6. Chemical/Pharmaceutical	6.7	6.7	5.0	5.3
7. Beverages, Beer & Spirits	5.3	6.3	6.0	6.0
8. Clothing and Textiles	5.5	6.8	6.0	4.5
9. Footwear	6.3	7.0	7.0	4.7
10. Cosmetics and Soaps	6.2	6.8	7.0	6.2

Source: Research Findings

This table is intended to show the influence of Geographic, Demographic, Psychographic and Behavioral variables.

The means shown are computed from the raw data in Appendix 3. The way to interpret the mean scores as follows. In the Meat and Dairy Products' Industry, demographic considerations are the most influential with a mean of 6.3 out of a possible 7.0; followed by psychographic considerations, geographic considerations and lastly behavioral considerations.

In the same manner, the most influential variable for Category 2, Canned Vegetables, Fish, Oil and Fats is demographic characteristics. In fact, it was observed that most industries indicated that demographics influence their product and marketing strategies to a greater extent than any other variable. The only exception to this was the Grain Mill Products' industry which rated geographic and behavioral considerations equal or higher than demographic considerations.

The Cosmetics and Soaps Industry is also notable in that it rated demographic considerations second (with rating of 6.8) to psychographic considerations which had the maximum rating of 7.0. The Footwear industry also rated demographic and psychographics equally with a rating of 7.0 while Chemical/Pharmaceutical also rated geographic and demographic considerations equally (6.7). These are the most outstanding findings and further light will be shed on these differences/similarities in latter sections of this study.

4.3 THE MEASUREMENT OF THE DIFFERENCES OF MEAN SCORES BETWEEN DIFFERENT SEGMENTATION VARIABLES

This test was used to test whether the means for the different segmentation variables were significantly different at the 95 percent confidence level. The procedure was as follows:-

1. The means for the two variables being investigated were ranged side by side and designated x_2 and x_1 respectively.
2. Computation of d i.e $x_2 - x_1$, and then Σd
3. Computation of the differences i.e $d - \bar{d}$

4. Testing whether the average ($\bar{d}$) differs significantly from zero.

The standard error of the estimate denoted as sd is given by the following formula:

$$S\bar{d} = \frac{Sd}{\sqrt{n}}$$

; where

$$Sd = \sqrt{\frac{(d - \bar{d})^2}{n - 1}}$$

and n is the number of the different industries in the sample.

Assuming a confidence level of 95 percent, the null hypothesis (Ho:) was that the two sets of means were not different. The alternative hypothesis (H_A) was that the two sets of means were different.

In the table of analysis, Column 1 shows the various industries, Columns 2 and 3, x_2 and x_1 respectively which are the two sets of means being tested, Column 4 is $d = x_2 - x_1$; Column 5 is $d - \bar{d}$ as defined above and Column 5 is $(d - \bar{d})^2$.

Assuming the differences $(d - \bar{d})$ are normally distributed, the ratio $\bar{d} - 0/S\bar{d}$ follows the t - distribution. The t - statistic is given by:-

$$t = \frac{\bar{d} - 0}{S\bar{d}}$$

The number of the degrees of freedom is (n - 1) where n is the number of d values. The test is two-tailed because only a d value that is either positive or negative and significantly different from zero could result in the acceptance of the alternative hypothesis $x_2 - x_1 \neq 0$

For a better grasp of the result, the test was done four times for the various variables as follows:

1. Geographic and Demographic
2. Psychographic and Behavioral
3. Demographic and Behavioral
4. Geographic and Psychographic

4.31 T-Test for the Difference of Mean Scores for Geographic and Demographic Variables

The computations for this test are contained in Table attached. The hypothesis to be tested was that the differences between the two sets of means were the same i.e

$$Ho: X_2 - X_1 = 0$$

$$HA: X_2 - X_1 \neq 0$$

where X_2 and X_1 are the means for the respective variables being tested.

TABLE 6
COMPUTATIONS FOR THE DIFFERENCES OF MEAN SCORES FOR GEOGRAPHIC(X2) AND DEMOGRAPHIC (X1) VARIABLES

INDUSTRY	X2	X1	d	$d - \bar{d}$	$(d - \bar{d})^2$
1. Meat and Dairy	5.3	6.3	-1.0	0.20	0.04000
2. Canned Vegetables, Fish, Oil and Fats	5.0	6.0	-1.0	0.20	0.04000
3. Grain Mill	4.5	4.3	0.3	1.50	2.25000
4. Bakery Products	2.3	6.7	-4.4	-3.20	10.24000
5. Sugar & Confec.	3.7	6.0	-2.3	-1.10	1.21000
6. Chemical/Pharm.	6.7	6.7	0	1.20	1.44000
7. Bev, Beer, Spirits	5.3	6.3	-1.0	0.20	0.04000
8. Clothing&Textiles	5.5	6.8	-1.3	-0.10	0.01000
9. Footwear	6.3	7.0	-0.7	0.50	0.25000
10. Cosmetics & Soaps	6.2	6.8	-0.6	0.60	0.36000
			-12.0		15.88000

$$\bar{d} = \frac{\sum d}{n} \iff \frac{-12.0}{10} = -1.20$$

$$Sd = \sqrt{\frac{(d - \bar{d})^2}{n - 1}} \iff \sqrt{\frac{15.88000}{9}} = 1.32832$$

$$S\bar{d} = \frac{Sd}{\sqrt{n}} \iff \frac{1.32832}{\sqrt{10}} = 0.42005$$

Test Statistic:

$$t = \frac{\bar{d} - 0}{S\bar{d}} \iff \frac{-1.20}{0.42005} = -2.8568$$

At a confidence level of 95 percent, $\alpha = 0.05$ and for a two-tailed test, the critical value at n - 1 degrees of freedom is read from Tables in Appendix C and is found to be $\pm$ 2.262.

Following this, the observed t of - 2.8568 lies outside the acceptance region. This means that we reject the null hypothesis (Ho) that the two sets of means are the same and accept the alternative hypothesis (H_A) that the two sets of means are significantly different at the 95 percent level of confidence.

At this level, we can tentatively conclude that different industries differ significantly in their practice of market segmentation as far as demographic and geographic variables are con cerned. This aspect will be elaborated on further in Chapter

Five.

4.32 T-Test for the Differences of Mean Scores for Psychographic and Behavioral Variables

Using exactly the same procedure as above and testing the same hypothesis, the following results were obtained for psychographic and behavioral variables. The following table shows the computations.

TABLE 7
COMPUTATIONS FOR THE DIFFERENCES OF MEAN SCORES FOR PSYCHOGRAPHIC(X2) AND BEHAVIORAL(X1) VARIABLES

INDUSTRY	X2	X1	d	$d - \bar{d}$	$(d - \bar{d})^2$
1. Meat and Dairy	5.6	4.3	1.3	0.82	0.6724
2. Canned Vegetables, Fish, Oil and Fats	5.0	5.3	-0.3	-0.78	0.6084
3. Grain Mill	3.8	4.3	-0.5	-0.98	0.9604
4. Bakery Products	5.7	4.7	1.0	0.52	0.2704
5. Sugar & Confec.	4.3	5.3	-1.0	-1.48	2.1904
6. Chemical/Pharm.	5.0	5.3	-0.3	-0.78	0.6084
7. Bev, Beer, Spirits	6.0	6.0	0.0	-0.48	0.2304
8. Clothing&Textiles	6.0	4.5	1.5	1.02	1.0404
9. Footwear	7.0	4.7	2.3	1.82	3.3124
10. Cosmetics & Soaps	7.0	6.2	0.8	0.32	0.1024
			4.8		9.9960

$$\bar{d} = \frac{\Sigma d}{n} \Longleftrightarrow \frac{4.8}{10} = 0.48$$

$$Sd = \sqrt{\frac{(d - \bar{d})^2}{n - 1}} \Leftrightarrow \sqrt{\frac{9.9960}{9}} = 1.053882$$

$$S\bar{d} = \frac{Sd}{\sqrt{n}} \Leftrightarrow \frac{1.053882}{\sqrt{10}} = 0.333268$$

Test Statistic:

$$t = \frac{\bar{d} - 0}{S\bar{d}} \Leftrightarrow \frac{0.48}{0.333268} = \pm 1.4402879$$

The observed t of ±1.4402879 lies in the acceptance region. This means that we fail to reject the null hypothesis that the two sets of means are not different. Hence, the observed t is not significantly different from zero and therefore the mean scores for psychographic and behavioral variables are not significantly different.

This test then implies that we cannot conclude with confidence that the importance attached to these two variables by the different industries is significantly different.

4.33 T-Test for the Difference of Mean Scores for Demographic and Behavioral Variables

When the same test was carried out for the demographic and behavioral variables the results were as below:

TABLE 8
COMPUTATIONS FOR THE DIFFERENCES OF MEAN SCORES FOR DEMOGRAPHIC(X2) AND BEHAVIORAL (X1) VARIABLES

INDUSTRY	X2	X1	d	d - d	d - d
1. Meat and Dairy	6.3	4.3	2.0	0.77	0.59290
2. Canned Vegetables, Fish, Oil and Fats	6.0	5.3	0.7	-0.53	0.28090
3. Grain Mill	4.3	4.3	0	-1.23	1.51290
4. Bakery Products	6.7	4.7	2.0	0.77	0.59290
5. Sugar & Confec.	6.0	5.3	0.7	-0.53	0.28090
6. Chemical/Pharm.	6.7	5.3	1.4	0.17	0.02890
7. Bev, Beer, Spirits	6.3	6.0	0.3	-0.93	0.86490
8. Clothing&Textiles	6.8	4.5	2.3	1.07	1.14490
9. Footwear	7.0	4.7	2.3	1.07	1.14490
10.Cosmetics & Soaps	6.8	6.2	0.6	-0.63	0.39690
			12.3		6.841

$$\bar{d} = \frac{\Sigma d}{n} \Leftrightarrow \frac{12.3}{10} = 1.23$$

$$Sd = \sqrt{\frac{(d - \bar{d})^2}{n-1}} \Leftrightarrow \sqrt{\frac{6.8410}{9}} = 0.872353$$

$$S\bar{d} = \frac{Sd}{\sqrt{n}} \iff \frac{0.872353}{\sqrt{10}} = 0.275862$$

Test Statistic:

$$t = \frac{\bar{d} - 0}{S\bar{d}} \iff \frac{1.23}{0.275862} = 4.4587479$$

It was discovered that the observed t of ± 4.458749 lies outside the acceptance region. As a result, the null hypothesis that the two sets of means are the same was rejected and the alternative accepted at the 95 percent level of confidence.

From this, the conclusion was that the different industries differ significantly in the extent to which demographic and behavioral variables influence their production and marketing of their products.

The same test was carried out for the difference of mean scores between psychographic and geographic variables. The result was that while the critical value of t was = 2.262, the observed t was ± 1.122249. Hence, observed t lies in the acceptance region and so fail to reject the null hypothesis at the 95 percent level of confidence. The means are not significantly different.

This test implies that we cannot conclude with confidence that the importance attached to these two variables by the different industries is significantly different.

4.4 FINDINGS ON THE BREAKDOWN OF THE VARIOUS SEGMENTATION VARIABLES INTO THEIR FINER ELEMENTS

Each of the four variables discussed so far namely demographic, geographic, psychographic and behavioral variables can further be divided into their finer divisions. For example, geographic considerations are region, climate, density; demographic considerations are age, sex, family size, etc.; psychographics are social class, lifestyles and behavioral considerations include such factors as occasions, benefits, user status and the others shown in Table 9 below. For a thorough understanding of market segmentation practice, the results for geographic, demographic and behavioral breakdowns are shown in the table for each industry involved in the study.

TABLE 9
TABLES SHOWING THE BREAKDOWN OF THE VARIOUS SEGMENTATION VARIABLES BY INDUSTRY

VARIABLE/IND	1	2	3	4	5	6	7	8	9	10
Geographic										
a Region	2.7	2.7	2.0	1.3	1.7	2.7	2.7	2.3	2.3	2.2
b Climate	2.7	2.7	1.8	1.3	1.7	2.7	2.7	3.0	2.7	2.4
c Density	1.7	1.7	2.3	1.0	1.0	1.3	2.0	1.0	1.0	1.6
Demographic										
d Age	3.0	2.7	1.8	2.0	2.7	3.0	2.3	3.0	3.0	3.0
e Sex	1.3	1.7	1.0	1.0	1.3	3.0	2.7	3.0	3.0	3.0
f Family Size	2.7	2.3	1.8	2.7	2.0	2.0	1.3	2.2	2.3	3.0
g Family L/Cycle	2.7	1.7	1.8	1.7	2.0	2.0	1.7	2.2	2.3	3.0
h Income	3.0	3.0	2.0	3.0	2.3	2.7	3.0	3.0	3.0	3.0
i Occupation	2.0	1.3	1.5	1.3	1.0	2.0	2.0	2.0	2.0	2.6
j Education	2.0	2.3	1.0	1.7	1.0	1.7	2.0	2.3	2.0	2.4
k Religion/race	2.7	2.3	2.0	2.0	1.7	2.0	2.7	2.5	2.0	2.8
Behavioral										
l Occasions	2.7	3.0	2.0	2.7	2.7	1.3	2.3	2.2	1.7	2.4
m Benefits	1.3	1.3	1.0	2.3	1.0	2.7	2.3	1.7	1.7	2.6
n User Status	2.0	1.3	1.3	1.3	1.0	1.0	2.0	1.5	1.0	1.8
o Loyalty Status	1.7	1.0	1.3	1.0	1.0	1.3	2.7	1.3	1.3	2.0
p Attitude	1.7	1.3	1.5	1.0	1.0	1.3	2.0	1.3	1.3	2.0

Source: Research Findings

The results of this table should be used in conjunction with the findings reported in Table 5. The way to interpret this table tying it with Table 5 will be demonstrated using a few examples. The Meat and Dairy Products industry rated demographic considerations as being the most important in the production and marketing of its products. Looking at the first column under demographics in Table 9, it is indicated that the most serious considerations in order of importance were age (3.0), income (3.0), family size (2.7), family lifecycle (2.7), and so on to the least important, sex with a rating of 1.3 Most firms in this industry actually rated sex as unimportant.

The Footwear industry also rated demographics as the most important influence (7.0). Looking under column 9 in Table 9, the most important among the demographics as far as this industry is concerned are age, sex, family size, family lifecycle and income while the least important was education, though it was pointed out that this is partly reflected in income.

The Chemical/Pharmaceutical industry rated geographic considerations highly (6.7). The most important elements for this are the region and climate. For demographics which it rated highly (6.7), the elements most crucial are age, sex and income. For the Cosmetics and Soaps Industry, the demographics most important are age, sex, family size, family lifecycle and income. We also note the high rating for religion/race influences; in fact the highest for all the industries.

In a similar manner, Tables 5 and 9 can be used to draw other conclusions regarding the other industries not included in the few examples cited above. These two will be very important in the next chapter on Conclusions and Recommendations.

4.5 PROBLEMS ENCOUNTERED IN THE USE OF FORMAL MARKET SEGMENTATION MODELS IN KENYA

As a final part to the study, the problems encountered in the practice of market segmentation were also analyzed. The formal market segmentation designs being referred to here are the a priori, cluster-based, componential and the flexible segmentations designs which are discussed at length in Chapter Two. The researcher had suggested several problems which the respondent firms ticked as applies to them. They were also free to specify any other reasons not suggested by the researcher. The table (Table 10) shows the results for all the firms in total.

TABLE 10

PROBLEMS ENCOUNTERED IN THE USE OF FORMAL SEGMENTATION MODELS

PROBLEM	NUMBER OF RESPONSES*
1. Methods too complicated to understand	14
2. Lack of the necessary sophisticated equipment	11
3. Markets not developed enough	28
4. Lack of trained personnel	5
5. Methods not necessary for our firm	26
6. Other (specified by respondents)	13

* respondents were free to tick several problems

Source: Research Findings

It would seem that the most frequent response about the problem perceived to be most important is that markets are not developed enough. It was the feeling of most that the existence of developed and sophisticated markets is an essential prerequisite to the practice of market segmentation as practiced in the developed market economies.

The next problem in importance was that many firms perceived the formal use of the models as not being very important and a good number indicated that given the state of our markets, intuition, more than anything else, can work better than these borrowed models whose relevance in the local situation is questionable.

It was the contention of most firms that no method, no matter how complicated to understand, or the lack of sophisticated machinery and trained personnel, will be ignored if their benefits justify the cost as reflected in the Balance Sheet. This explained why these problems scored poorly as compared to the others. These and the many other suggestions will be discussed further in the next chapter on conclusions.

CHAPTER FIVE

5.1 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.11 Introduction

As set out in Chapter One on the Objectives of the Study, the focus of this study was to find out about the use of market segmentation by medium and large scale manufacturing firms in Kenya. The four sub-objectives dealt with specific aspects of the study as relates to market segmentation and their use was to make the main task easier for the researcher. All the objectives of the study were achieved and the following sections will endeavor to show the conclusions drawn by the researcher. The limitations of the study and recommendations for further research will also be addressed towards the end of this chapter.

5.12 Conclusions on the Use of Market Segmentation

1. The medium and large scale manufacturing firms in Kenya segment their markets and aim at particular target groups in the production and marketing of their products. Though not as sophisticated as the practice in the developed market economies, nevertheless many firms undertake various activities which led to the conclusion that market segmentation is important to most industries here in Kenya.

2. Given that the practice of market segmentation is at the core of the product and marketing strategies of each particular firm, it is a conclusion of this study that the various industries segment their markets in different ways. This means that the various elements which a firm in one industry stresses is not the same as stressed by a firm in a totally different industry. This aspect came out very clearly in the course of the study when the differences of the mean scores for the influence of the various variables were tested. The following are a few examples emanating from the research findings:-

(i) In the Meat and Dairy Products Industry, the firms produce such products as sausages, bacon, ham, fresh meat, ice cream, butter, cheese, and other related products. The main variables influencing the practice of market segmentation are demographic and psychographic variables. These include age, family size, income, religion, etc. The age is of great influence in a product such as ice cream where children are an important target group. As such, the flavoring, colouring, advertising appeals, distribution are all aimed at satisfying this target group. Family size and family lifecycle are important because the volume of consumption is influenced by the size of the family. This is especially so for milk and milk products which are consumed more in large families. Religion is important because certain religions like Islam do not consume certain meat products. The importance of race is that certain races like Asians, Europeans, consume more cheese, ice cream and so on. This also reflects the importance of psychographics such as lifestyle and social class as they affect the product and marketing strategies in a particular firm.

(ii) For the Grain Mill Industries who specialize in the production of wheat and maize products, they are more influenced by geographic and demographic considerations. Whereas the demographics are as explained above, it was found that consumption in certain areas which are densely populated was higher and this influenced the distribution strategies of the products. This category is also characterized by a limited product range since it is mainly a staple food industry which falls under government regulated industries.

(iii) The Canned Vegetables, Fish, Oil and Fats industries produce dehydrated vegetables, fruit juices, cooking fats, vegetables ghee, margarine and other vegetable products. The most important influences were demographic and behavioral variables. The demographics were age, family size, family lifecycle, income, etc. While the rest can be explained in a similar manner as done above, income was the single most important influence since the product must be affordable to the target group. Among the behavioral variables, user status was important and the example of the purely vegetarian was cited for this industry. These comprise a small market segment in size but whose purchasing power is very high and hence its importance. The importance of the psychographic variables here is worth noting since the vegetarians are high income, high social status group and so comprise a viable market segment.

(iv) The Chemical/Pharmaceutical industry specializes in the making of medicines, both veterinary and human. However, it is the human medicine and drugs which are of special interest here. The important variables were the demographics such as age, sex and income whose explanation is as for other industries. The psychographic variables which are important are lifestyle and social status where certain drugs are used primarily by the higher social status group. This is partly a reflection of their high income but also due to those particular illnesses that afflict mainly the well-to-do. The market segmentation practice in this industry also differed markedly from that for other ordinary commodities in that market segmentation is done purely on the symptoms and illnesses afflicting the consumers.

(v) The Clothing and Textiles and also the Footwear industries are influenced to a great extent by the demographic and psychographic variables. Influences such as age, sex, income, family size and family lifecycle are important among the demographic variables, while social class and lifestyle among the psychographics probably have more meaning and applicability in these industries than in most of the others already cited. This is due to the nature of the products e.g shirts, cardigans, dresses, shoes, blouses, etc. all which have a direct bearing on the variables listed above. As a result, market segmentation is very important in these industries and begins at the idea conceptualization stage and practiced right through the production and marketing of the products.

(vi) Another industry worthy of note is the Cosmetics and Soaps industry which is involved in the production of cosmetics, toiletries, soaps, colognes, lotions, lipsticks, creams, baby products, sanitary ware, etc. It is an industry which practices market segmentation to the utmost. For example many of the products above are age specific e.g baby lotions, colognes, lipsticks; sex specific e.g creams, soaps, lipsticks. For this reason, these variables have to be taken into account at the initial stages in product development. Variables such as income, lifestyle, social class are also important because there are some products in this category which are exclusive such as colognes, lipsticks, sprays. These are priced highly and are therefore meant for the high income target group. Each product in this industry is made with a specific buyer profile in mind due to the competitive nature of the products. Packaging and advertising appeals play a major role in the marketing of these products. The firms have to choose the right media to reach the target groups.

The above are a few examples cited from the study undertaken. For the other industries not included; similar inferences on the use of market segmentation could be drawn from the data presented in Chapter Four and also in Appendix B1 and B2.

5.13 Conclusions and Discussion on the Problems Encountered in the use of formal Market Segmentation Models

Though the above examples would suggest that market segmentation is very important, the Kenyan situation is unique in that the markets are not developed enough as in the advanced market economies. This was the major problem encountered to the extent that marketers resort to some unorthodox methods in the study and analysis of their markets. The formal models are also not important in our context partly because of the undeveloped nature of the markets but also for the fact that the rule of thumb methods used work and hence there is no need for expensive models which will not serve any useful purpose at the present time.

It also seems that marketing is not taken with the seriousness it deserves by many firms in certain industries which attract government intervention in price setting and distribution. Though segmentation is important for their product and marketing strategies, they are limited in the degree to which this can be practiced. As is the case with many borrowed models, it will take time before their use is fully appreciated and practiced. It will also call for a level of sophistication which some industries at present are far from achieving and also a certain level of awareness and education on the part of the consumers.

5.2 RECOMMENDATIONS

The need to segment a market and target a particular group with the product and marketing strategies arises due to competition. A firm in a very dynamic industry like Cosmetics and soaps would have totally different threats from a firm in Grain Mill Products industries. Despite these differences, market segmentation is nonetheless important. With the decontrol of prices and the opening of the local markets to foreign competitors, there is a need for the management of any firm to devise ways which will differentiate their offer from the competitors' in even a subtle way. This will ensure that the products appeal to specific target groups which will assure the firm's future.

From the study, segmentation need not be a very complicated process. Management need only identify those variables which impact more on their products and try to tailor their marketing mix to the particular group of interest.

5.3 LIMITATIONS OF THE STUDY

The single most important limitation of this study was the fact that the emphasis was mainly on the medium and large scale consumer goods industries and in these only specific industries were involved. Given that market segmentation is at the core of production and marketing strategies, the findings of this study can only logically be applicable to the industries in the sample and closely related industries.

As far as data collection was concerned, due to negative response by some respondents, only a small number of the questionnaires were analyzed. Given the diverse nature of some industries and the numerous firms involved, having 3 or 4 firms in some industry categories may bias the results. This should be borne in mind in using the research findings.

5.4 DIRECTION FOR FURTHER RESEARCH

This study mainly dwelt on the consumer goods industries and only a few due to the time constraint. A study on market segmentation on the industrial goods industries can also be undertaken to examine the use of market segmentation in these industries.

Another important area left out but which is vital for future studies is in the area of service industries like banks, insurance companies, beauty care, etc. These probably use market segmentation more than some consumer goods industries and so they should be examined in future.

Given that this study was the first of its kind in market segmentation in Kenya, and hence was mainly interested in establishing the practice, further studies can be done on the segmentation variables with particular emphasis on market segmentation models.

APPENDIX A:

Specimen Letter to the Respondents:

Dear Sir/Madam

I am a graduate student in the Faculty of Commerce, University of Nairobi. I am currently engaged in a management research project on market segmentation and its application by medium and large scale manufacturing firms in Nairobi. This is in fulfillment of the degree of Masters in Business and Administration.

I therefore request you kindly to fill the questionaire attached to the best of your knowledge. The information you give will be used for research purposes only and in no way will the name of your firm appear in the final report. A copy of the report will be made available to you upon request.

Your cooperation will be greatly appreciated. Thanking you in advance.

Yours faithfully,

Ng'ang'a J.M.

M.B.A II Student

QUESTIONNAIRE

SECTION A:

1. Name of Firm (OPTIONAL)..

2. Industry Firm belongs...

3. Ownership (Tick as appropriate)

    Locally owned ( )

    Partly local, partly foreign ( )

    Subsidiary of a multinational firm ( )

    Any other specify..

    ....

4. Number of years firm has been in operation:

    1 - 5 Years ( )

    6 - 10 " ( )

    11 - 15 " ( )

    16 - 20 "

    Over 20 " ( )

5. How many products/brands does your firm produce?

    1 ( )

    2 ( )

    3 ( )

Other specify..

6. (a) Do you have branches around the country?

Yes ( ) No ( )

(b) If Yes, please indicate number..........................

7. Indicate the location (Tick as appropriate)

Nairobi and Central Provinces	( )
Western Provinces	( )
Coast Province	( )
Rift Valley	( )

Other specify..

8. (a) Do you have a Marketing/Sales Department?

Yes ( ) No ( )

(b) If Yes, please list some of the functions of this department in your firm.....................................

....

....

....

....

....

(c) If No, who carries out the functions of this department?

....

....

....

....

SECTION B:

9. In the production and marketing of your product, which of the following apply to your firm? (tick as appropriate)

We usually analyze our market shares ( )

We often study our potential markets ( )

We often survey the needs of our customers ( )

We produce what our consumers want ( )

We usually target a particular market ( )

We take into account the ability of our consumers to buy our product ( )

We take into account the media habits of our target market when advertising our product ( )

10. Given that most of the above are essential activities in market segmentation, indicate in the scale below how important market segmentation[2] is in your firm.

----

2. market segmentation is the process of dividing a heterogeneous market into segments which are identifiable for the purpose of designing a product, pricing it appropriately, designing the appropriate promotion and distribution so as to meet the needs of the consumers in the segments attractive to the firm.

Unimportant ( ) Important ( ) Very Important ( )

11. If your answer to Question 10 is "Unimportant", indicate why by ticking against the appropriate statement

Firm is too small	( )
Concept not appropriate in local setting	( )
Market not identifiable and measurable	( )
Heavy users are the only relevant target	( )
Our brand is the dominant brand in the market	( )
Market not substantial to generate a sales volume that ensures profitability	( )
Market not accessible	( )
Market not responsive to the marketing programs developed to reach specific segments	( )

Any other please specify...
....
....
....
....

GO TO 13

12. If your answer to Question 10 is "Important" or "Very Important" please tick the reason why from among the following

Profitability has improved	( )
Better allocation of resources has resulted	( )
Competitors have been effectively dealt with	( )

Any other please specify..................................

....

....

....

....

GO TO 14

13. In the absence of formal market segmentation as defined above, which of the following apply to your firm?

Make product suitable for everyone ( )

Make product and then look for possible customers ( )

Make product and aggressively advertise it ( )

Make product and then try to adapt consumers to product ( )

Follow competitors' innovations ( )

GO TO 19

14. In the production and marketing of your product(s) to what extent are you influenced by the following?

(a) Geographic considerations (i.e region, climate, etc)

Not at All						A Great Deal
1	2	3	4	5	6	7
( )	( )	( )	( )	( )	( )	( )

(b) Demographic considerations (age, sex, family size, income)

Not at All A Great Deal

1	2	3	4	5	6	7
( )	( )	( )	( )	( )	( )	( )

(c) Psychographic Considerations(social class, lifestyle, personality, etc)

Not at All A Great Deal

1	2	3	4	5	6	7
( )	( )	( )	( )	( )	( )	( )

(d) Behavioral Considerations (occasions, benefits, user status, attitude towards product)

Not at All A Great Deal

1	2	3	4	5	6	7
( )	( )	( )	( )	( )	( )	( )

15. (i)If your answer to Question 14 is (a) give some possible reasons..
....

(ii) If (b) give reason(s)..
....
....

(iii) If (c) give reason(s).................................

....

....

(iv) If (d) give reason(s)..................................

....

....

16. Among the broad categories cited in Question 14 above, please indicate how important the following variables are:

VARIABLES	Not Important	Important	Very Important
Geographic:			
. region	( )	( )	( )
. climate	( )	( )	( )
. density	( )	( )	( )
Demographic:			
. age	( )	( )	( )
. sex	( )	( )	( )
. family size	( )	( )	( )
. family life cycle	( )	( )	( )
. income	( )	( )	( )
. occupation	( )	( )	( )
. education	( )	( )	( )
. religion/race	( )	( )	( )

Behavioral:

. occasions	( )	( )	( )
. benefits	( )	( )	( )
. user status	( )	( )	( )
. loyalty status	( )	( )	( )
. attitude towards product	( )	( )	( )

17. From Question 16, choose the important and very important variables for your firm and explain briefly how they are used. ....
....
....
....
....
....
....
....

18. Which of the following activities relating to segmentation does your firm undertake? (Tick YES or NO)

Analyze our potential markets	Yes ( )	No ( )
Survey the needs of our consumers	Yes ( )	No ( )

Decide on basis of segmentation before carrying out the survey Yes ( ) No ( )

Decide on the basis of segmentation after the survey Yes ( ) No ( )

Determine segments on the basis of clustering of consumers on set of relevant variables Yes ( ) No ( )

Group consumers who evince similar response profiles together Yes ( ) No ( )

Decompose consumers' individual responses into component contributions that are person related Yes ( ) No ( )

19. Have you introduced a new product or modified any of your brands in the past two years?

    Yes ( ) No ( )

20. If "YES" tick from among the following possible reason(s)

    To keep pace with competitors ( )

    To meet new consumer needs ( )

    To add to our product line so as to get competitive edge ( )

    To plug a product line gap ( )

    Any other please specify..
    ....
    ....

21. If "NO" tick from among the following possible reason(s)

Industry is quite stable ( )

No new perceived needs from consumers ( )

Our market share is large and profitable as it is ( )

It is too costly ( )

Consumers are not responsive to new products ( )

Any other please specify...

....

....

22. What in your opinion are the main problems hampering the use of market segmentation models in the local setting?

Methods too complicated to understand ( )

Lack of necessary sophisticated equipment ( )

Markets not developed enough ( )

Lack of trained personnel ( )

Methods not necessary for our firm ( )

Other please specify...

....

....

*******THANK YOU VERY MUCH FOR YOUR COOPERATION*****

APPENDIX B1

MEANS SHOWING INFLUENCE OF THE SEGMENTATION VARIABLES BY INDUSTRY

1. Meat and Dairy Products

	Geographic	Demographic	Psychographic	Behavioral
1	6	6	6	4
2	4	6	5	4
3	6	7	6	5
Mean	5.3	6.3	5.6	4.3

2. Canned Vegetables, Fish, Oil and Fats

	Geographic	Demographic	Psychographic	Behavioral
4	5	6	5	6
5	6	6	5	4
6	4	6	5	6
Mean	5.0	6.0	5.0	5.3

3. Grain Mill Products

	Geographic	Demographic	Psychographic	Behavioral
7	5	5	3	3
8	4	4	2	5
9	2	7	7	6
10	7	1	3	3
Mean	4.5	4.3	3.8	4.3

4. Bakery Products

	Geographic	Demographic	Psychographic	Behavioral
11	1	7	7	4
12	2	6	7	3
13	4	7	3	7
Mean	2.3	6.7	5.7	4.7

5. Sugar and Confectionery

	Geographic	Demographic	Psychographic	Behavioral
14	3	7	6	3
15	1	4	1	6
16	7	7	6	7
Mean	3.7	6.0	4.3	5.3

6. Chemical/Pharmaceutical

	Geographic	Demographic	Psychographic	Behavioral
17	6	6	5	4
18	7	7	5	7
19	7	7	5	5
	---	---	---	---
Mean	6.7	6.7	5.0	5.3
	====	====	====	====

7. Beverages, Beer and Spirits

	Geographic	Demographic	Psychographic	Behavioral
20	7	7	6	5
21	3	5	5	4
22	6	7	7	7
	---	---	---	---
Mean	5.3	6.3	6.0	6.0
	====	====	====	====

8. Clothing and Textiles

	Geographic	Demographic	Psychographic	Behavioral
23	7	7	6	5
24	6	7	7	4
25	6	7	7	4
26	6	7	6	7
27	4	6	3	4
28	4	7	7	3
	---	---	---	---
Mean	5.5	6.8	6.0	4.5
	====	====	====	====

9. Footwear

	Geographic	Demographic	Psychographic	Behavioral
29	6	7	7	6
30	7	7	7	4
31	6	7	7	4
	---	---	---	---
Mean	6.3	7.0	7.0	4.7
	====	====	====	====

10. Cosmetics and Soaps

	Geographic	Demographic	Psychographic	Behavioral
32	5	7	7	7
33	6	6	7	6
34	7	7	7	7
35	7	7	7	5
36	6	7	7	5
	---	---	---	---
Mean	6.2	6.8	7.0	6.2
	====	====	====	====

APPENDIX B2

IMPORTANCE ATTACHED TO THE BASIC ELEMENTS OF SOME OF THE SEGMENTATION VARIABLES

	GEOGRAPHIC	DEMOGRAPHIC										BEHAVIOURAL				
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
1. Meat and Dairy Products																
1	3	3	3	3	2	3	3	3	3	3	3	2	1	2	2	2
2	2	2	1	3	1	2	2	3	1	1	3	3	1	2	2	2
3	3	3	1	3	1	3	3	3	2	2	2	3	2	2	1	1
2. Canned Vegetables, Fish, Oil and Fats																
4	3	3	1	3	1	2	2	3	2	2	2	3	2	2	1	2
5	3	3	3	3	3	3	1	3	1	3	2	3	1	1	1	1
6	2	2	1	2	1	2	2	3	1	2	3	3	1	1	1	1
3. Grain Mill Products																
7	2	2	3	2	1	1	2	2	3	1	1	2	1	1	1	1
8	3	2	3	1	1	3	2	2	1	1	3	3	1	1	1	2
9	1	1	1	3	1	2	2	3	1	1	2	2	1	2	2	2
10	2	2	2	1	1	1	1	1	1	1	2	1	1	1	1	1
4. Bakery Products																
11	1	1	1	2	1	3	1	3	1	2	2	3	3	1	1	1
12	1	1	1	2	1	3	2	3	2	2	3	3	3	2	1	1
13	2	2	1	2	1	2	2	3	1	1	1	2	1	1	1	1
5. Sugar and Confectionery																
14	1	1	1	2	1	1	2	3	1	1	1	2	1	1	1	1
15	1	1	1	3	1	2	1	1	1	1	3	3	1	1	1	1
16	3	3	1	3	2	3	3	3	1	1	1	3	1	1	1	1
6. Chemical/Pharmaceutical																
17	2	2	1	3	3	2	2	2	2	1	1	1	2	1	2	2
18	3	3	1	3	3	2	2	3	2	2	3	2	3	1	1	1
19	3	3	2	3	3	2	2	3	2	2	2	1	3	1	1	1
7. Beverages, Beer and Spirits																
20	2	3	1	3	3	3	2	3	2	2	3	3	3	2	3	2
21	3	2	2	1	2	1	1	3	1	1	2	1	1	2	1	1
22	3	3	3	3	3	1	2	3	3	3	3	3	3	2	3	3
8. Clothing and Textiles																
23	3	3	1	3	3	2	2	3	2	2	2	2	2	2	2	1
24	1	3	1	3	3	2	2	3	2	2	2	2	2	1	1	1
25	1	3	1	3	3	2	3	2	3	2	2	2	2	1	1	2
26	3	3	1	3	3	2	2	3	2	2	3	3	3	3	2	2

27	3	3	1	3	3	2	2	3	1	3	3	1	1	1	1	1
28	3	3	1	3	3	3	3	3	3	3	3	3	1	1	1	1

9. Footwear

29	2	2	1	3	3	2	2	3	2	2	3	1	2	1	1	1
30	3	3	1	3	3	3	3	3	2	2	1	2	1	1	1	1
31	2	3	1	3	3	2	2	2	2	3	2	2	2	2	2	2

10. Cosmetics and Soaps

32	2	3	2	3	3	3	3	3	3	3	3	2	3	2	3	3
33	2	2	2	3	3	3	3	3	3	3	2	3	3	3	3	3
34	3	3	2	3	3	3	3	3	2	2	3	3	3	2	2	2
35	2	2	1	3	3	3	3	3	3	2	3	2	2	1	1	1
36	2	2	1	3	3	3	3	3	2	2	3	2	2	1	1	1

KEY:

a region
b climate
c density
d age
e sex
f family size
g family lifecycle
h income
i occupation
j education
k religion
l occasions
m benefits
n user status
o loyalty status
p attitudes towards product

1 = Unimportant 2 = Important 3 = Very Important

APPENDIX C
T - TEST STATISTIC TABLES

df	Alpha level of significance for nondirectional (two-tailed) tests .50	.10	.05	.02	.01	.001
1	1.000	6.314	12.706	31.821	63.657	636.619
2	.816	2.920	4.303	6.965	9.925	31.598
3	.765	2.353	3.182	4.541	5.841	12.941
4	.741	2.132	2.776	3.747	4.604	8.610
5	.727	2.015	2.571	3.365	4.032	6.859
6	.718	1.943	2.447	3.143	3.707	5.959
7	.711	1.895	2.365	2.998	3.499	5.405
8	.706	1.860	2.306	2.896	3.355	5.041
9	.703	1.833	2.262	2.821	3.250	4.781
10	.700	1.812	2.228	2.764	3.169	4.587
11	.697	1.796	2.201	2.718	3.106	4.437
12	.695	1.782	2.179	2.681	3.055	4.318
13	.694	1.771	2.160	2.650	3.012	4.221
14	.692	1.761	2.145	2.624	2.977	4.140
15	.691	1.753	2.131	2.602	2.947	4.073
16	.690	1.746	2.120	2.583	2.921	4.015
17	.689	1.740	2.110	2.567	2.898	3.965
18	.688	1.734	2.101	2.552	2.878	3.922
19	.688	1.729	2.093	2.539	2.861	3.883
20	.687	1.725	2.086	2.528	2.845	3.850
21	.686	1.721	2.080	2.518	2.831	3.819
22	.686	1.717	2.074	2.508	2.819	3.792
23	.685	1.714	2.069	2.500	2.807	3.767
24	.685	1.711	2.064	2.492	2.797	3.745
25	.684	1.708	2.060	2.485	2.787	3.725
26	.684	1.706	2.056	2.479	2.779	3.707
27	.684	1.703	2.052	2.473	2.771	3.690
28	.683	1.701	2.048	2.467	2.763	3.674
29	.683	1.699	2.045	2.462	2.756	3.659
30	.683	1.697	2.042	2.457	2.750	3.646
40	.681	1.684	2.021	2.423	2.704	3.551
60	.679	1.671	2.000	2.390	2.660	3.460
120	.677	1.658	1.980	2.358	2.617	3.373
∞	.674	1.645	1.960	2.326	2.576	3.291

SOURCE: Appendix B is taken from Table III of Fisher & Yates: *Statistical Tables for Biological, Agricultural and Medical Research*, published by Oliver & Boyd Ltd., Edinburgh, and by permission of the authors and publishers. This abridgment is reproduced from John G. Peatman, *Introduction to Applied Statistics*. New York: Harper & Row, Publishers, 1953. Reprinted by permission.

BIBLIOGRAPHY

Bass F.M., Tigert D.J., Losdale R.T.; "Market Segmentation: Group vs Individual Behaviour," Journal of Marketing Research (August 1968)

Beckman M.D.Kurtz D.L, Boone L.E.;Foundations of marketing, 3rd Edition; Toronto; Holt, Rinehart and Winston of Canada Ltd; 1982 CAP 5

Blatberg, R. and Sen S.K.; "Market Segments and Stochastic Brand Choice Models," Journal of Marketing Research, 13(February 1976)

Boyd H.W., Westfall R., Stasch S.F.; Marketing Research, Text and Cases, Sixth Edition: Homewood, Illinois; Richard D. Irwin Inc.; 1985 p677 - 709

Brown G. H. "Brand Loyalty - Fact or Fiction?" Advertising Age, June 1952 in Kotler (1989:294)

Claycamp, H.J.; Massy W.F.; "A Theory of Market Segmentation," Journal of Marketing Research, 5(NOV 1968)

Davis K.R.; Marketing Management, 4th Edition; New York; John Wiley and Sons Inc. 1981 CAP 14

Green, P.E.; "A New Approach to Market Segmentation," Business Horizons, 20(FEB 1977)

Green, P.E., Yoram W.; "New way to measure consumer judgement," Harvard Business Review (Sept-Oct 1979)

Haley R. J. "Benefit Segmentation: A Decision Oriented Research Tool," Journal of Marketing, July 1963

Johnson, R.M. "Trade-Off Analysis of Consumer Values," Journal of Marketing Research, 11(May 1974), 121 - 127

Johnson R. M. "Market Segmentation: A Strategic Management Tool'" Journal of Marketing Research, 8(February 1971) 13 - 18

Kotler, P.; Marketing Management, Sixth Edition; New Delhi; Prentice-Hall Series, 1988 p279 - 317

Lazer W., Culley J.D.; Marketing Management, 6th Edition; Boston; Houghton Miflin Company 1983 CAP 7

--------- and Lawrence K. Spitz "Analytical Approach to Marketing Decisions in Health Care Organizations," Operations Research, 24(September - October 1976) 973 - 99

Mahajan V.; Jain A.K.; "An approach to normative segmentation," Journal of Marketing Research Vol XV(August 1978)

McDaniel C. Jr.; Marketing, 2nd Edition, New York; Harper & Row Publishers, 1982 CAP 4

Parker, Barnett R. and Srinivasan V. "A Consumer Preference Approach to the Planning of Rural Primary Health Care Facilities," Operations Research, 24(1976) 991 - 1025

Peterson, R.A. "A Market Structuring by Sequential Cluster Analysis," Journal of Business Research, 2(July 1974) 249 - 264

Pessemier E.A.; Product Management, 2nd Edition; New York; John Wiley and Sons Inc. 1983

Resnik A.J.; et al ; "Marketers turn to Countersegmentation," Harvard Business Review (Sept-Oct 1979)

Reynolds, W.H. "More Sense About Market Segmentation," Harvard Business Review, 43(September - October 1965) 107 - 114

Shapiro B.P.; Bonona T.V.; "How to segment industrial markets," Harvard Business Review, (May-June 1984)

------- and Sen S.K. "Market Segmentation Using Models of Multidimensional Purchasing Behaviour," Journal of Marketing, 38(October 1974), 17 - 28

Smith R. W.; "Product Differentiation and Marketing Segmentation as alternative market strategies," Journal of Marketing Research (July 1956)

Twedt D. W. "How Important to Marketing Strategy is the Heavy User?" Journal of Marketing, January 1974

Webster F.E. Industrial Marketing Strategy, 4th Edition, New York, Wiley & Sons 1979

Wells, W.D.,; "Psychographics: A critical review," Journal of Marketing Research 12(May 1975)

Wind Y.; "Issues and Advances in Segmentation Research," Journal of Marketing Research Vol.XV (August 1978)

Yankelovich D.; "New Criteria for Market Segmentation," Harvard Business Review (March-April 1964)

--------- and Yoram Wind, Multiattribute Decisions in Marketing; A Measurement Approach, Hinsdale, Illinois: Dryden Press, 1973

Young S., Ott L., Feigin B.; "Some practical considerations in market segmentation," Journal of Marketing Research Vol XV(August 1978)

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