

**A CRITICAL EVALUATION OF THE CONTRIBUTION OF PSYCHOGRAPHIC
MEASURES AS DESCRIPTOR VARIABLES
IN THE PROFILING OF MARKET SEGMENTS FOR A SPECIFIC INDUSTRY**

MARILYN CHAPLIN

VOLUME 1 OF 2

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MARILYN CHAPLIN

A Dissertation Submitted to the Faculty of Commerce
University of Cape Town
for the Degree of Master of Business Science

Cape Town 1992

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ACKNOWLEDGEMENTS

There are many people who have kindly assisted me with this thesis. In particular, the following deserve special mention:

- * **Professor Heléne Brice** (*Thesis supervisor*) who motivated me to tackle this project in the first place and whose encouragement and enthusiasm throughout this thesis was never ending.
- * **Professor Trevor Wegner** (*Thesis supervisor*) who was always willing to help me and who provided valuable assistance as I struggled to come to grips with the rigours of academic research. For his attention to detail and unfailing patience I am deeply grateful.
- * **Richard Baker** (*Managing Director - Tongaat Mushrooms*) who sponsored this thesis and who provided me with the valuable information I required to gain an understanding of the industry.
- * **Jacqui Sommerville** (*BMDP expert in the UCT Computer Services Department*) who gave so much of her own time to patiently help me come to grips with the enormity of the task in the data analysis. Her proficiency with the BMDP package ensured that the statistical analysis was a relative pleasure.
- * **René Patterson** (*Interviewer*) who personally completed over 400 interviews with incredible patience, perserverance, and always a smile.
- * **Brenda Dickinson, Jane Froggart and Tim Willard** who assisted me (at all hours!) with the typing and compilation of this thesis.

DEDICATION

Many long days, nights and weekends have been devoted to writing this thesis. Throughout these times my family provided me with encouragement, back-up and assistance and made it possible for me to pursue my goal. In so doing, they unselfishly accommodated me and gave up much of the time I might have shared with them.

With all my love and appreciation I dedicate this thesis to my family.

A CRITICAL EVALUATION OF THE CONTRIBUTION OF PSYCHOGRAPHIC MEASURES AS DESCRIPTOR VARIABLES IN THE PROFILING OF MARKET SEGMENTS FOR A SPECIFIC INDUSTRY

CHAPLIN Marilyn, University of Cape Town, 1992

ABSTRACT

Psychographic measures were widely employed in market segmentation studies in the seventies.

Psychographics were said to offer marketers quantitative research that resulted in rich descriptive profiles of target segments.

The present use of psychographics in segmentation studies has however become a controversial issue among marketing theorists.

The literature reveals that no explicit theory has guided the development of psychographics. As a result it has been abused by researchers. There is no one universally accepted definition of psychographics and researchers tend to operationalize psychographics to fit their own research purposes.

Psychographics has consequently attracted criticism in the literature. Critics argue that psychographic measures are useless and expensive. Moreover, it is felt that psychographic segmentation studies often produce results that are questioned on the grounds of reliability and validity.

On the other hand, supporters of psychographic research feel that psychographic measures can be of value in segmentation studies.

It is the author's intention in this thesis to address the conflicting opinions surrounding the potential usefulness of including psychographic variables in a market segmentation analysis.

Market segmentation analysis involves two steps:

- 1) Segmenting the market of interest [Function of the basis variable(s)].
- 2) Profiling of the resultant segments on their distinguishing characteristics [Function of the descriptor variable(s)].

The objective of this thesis is to critically examine the contribution of psychographic measures as potential descriptor variables in the profiling stage of a market segmentation analysis in the context of a specific industry.

The author has undertaken a segmentation analysis of the fresh mushroom industry. Existing fresh mushroom users were segmented on the basis of volume of use into two groups - a group of heavy users and a group of light users of fresh mushrooms.

Four sets of variables were included in the analysis as potential descriptor variables for the profiling of the two user groups:

- 1) Geographic Variables
- 2) Demographic Variables
- 3) Behavioural Variables
- 4) Psychographic Variables

A broad definition of psychographics was adopted for this thesis based on that proposed by Demby, 1974 and Haley, 1984.

The psychographic measures were operationalized through a model (proposed by the author for this study) that hypothesized to represent the hierarchy of effects on consumers' purchase behaviour for fresh mushrooms.

Based on this model 6 psychographic measures were included in the segmentation analysis:

- 1) Role Perceptions
- 2) Value Orientations
- 3) Benefits

- 4) Category Beliefs/Perceptions
- 5) Salient Product Attributes and Brand Preferences
- 6) Buying Styles

In order to assess the contribution of the psychographic variables to the profiling of the market segments, discriminant analysis was performed in two phases. Phase I included only the non-psychographic measures (Sets 1 - 3). In phase II the psychographic measures were added to the analysis.

Comparing the two stages of the discriminant analysis has shown that the psychographic measures yielded variables that were significant in identifying and describing the two user groups. Specifically nine psychographic variables (two - general and three - product specific in orientation) were useful for the profiling of heavy users and light users on their distinguishing characteristics. These nine psychographic variables together with the significant demographic and behavioural descriptive variables reduced the total unexplained variation in behaviour between the two groups to less than 25%.

Based on the findings of the empirical research the author concluded that the psychographic variables had contributed significantly as descriptor variables in the profiling of market segments and therefore were potentially useful measures to include in market segmentation analysis.

DECLARATION

I declare that this dissertation is my own unaided work. It is being submitted for the degree of Master of Business Science at the University of Cape Town. It has not been submitted for any degree or examination at any other university.

MARILYN CHAPLIN

August 1992

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Implementing a market segmentation strategy involves three key tasks (Kotler 1988 p 280) :

- 1) Market Segmentation Analysis
- 2) Market Targeting
- 3) Market Positioning

Market segmentation strategy seeks to direct marketing effort to defined target segments (Tasks 2 and 3) while market segmentation analysis defines the characteristics of the target segments to permit such allocation. (Task 1).

In this thesis the author will concentrate on Task 1. Implementing a segmentation analysis requires the selection of segmentation variables. Segmentation variables may be divided into two basic types: (Lilien et al, 1983 p 291)

- 1) The BASIS variable(s) upon which the market is divided.
- 2) The DESCRIPTOR variables which describe and profile the resultant market segments on their distinguishing characteristics.

The literature reveals that there are a wide variety of consumer behaviour measures that may be included as segmentation variables. Psychographics, for example, is just one of the possible many variables that could be included in a segmentation study. The literature also reveals, however, that there is no single 'best' way to segment the market (Wind 1978).

Some segmentation variables have, however, proved more popular than others. In the sixties and early seventies demographics was the popular choice.

Although demographics were easily measurable, critics began to argue that demographics were not accurate predictors of consumer behaviour. Demographics in many studies could not explain the 'WHY' of consumer behaviour (Louden et al, 1988 p 55). In addition, researchers argued that demographic measures lacked descriptive 'richness' - critical in the profiling of target segments (Wells, 1974).

Partly as a result of this dissatisfaction with demographic variables, psychographic variables came to the 'fore' in the mid seventies. Psychographics became extremely popular measures to be included in segmentation studies. Psychographics promised the marketer something more than demographics. Psychographic measures were intended to offer marketers quantitative research that would provide rich descriptive profiles of target segments (Plummer, 1974; Wilkie, 1990).

As a result, marketers increasingly segmented their markets on the basis of psychographics (also termed lifestyles) and/or included psychographic measures as descriptor variables for profiling of the market segments(Wells, 1975).

A review of more recent published literature on market segmentation reveals, however, that the trend has moved away from lifestyle/psychographic research. Some of the more popular current segmentation approaches are:

- 1) Benefit Segmentation (Haley 1984; 1985; Wicks 1989).
- 2) Person Situation Segmentation (Dickson 1982).
- 3) Geo-Demographics (Hawkins et al, 1992)
- 4) Two Stage or "Combination" Segmentation (Cravens, 1991 p 168)
- 5) Behavioural segmentation (Kotler 1988; Wilkie 1990)
(Youman, 1988 p 1; Domzal et al, 1985 p 17-26).
- 6) General Psychographic and Value 'Models' (Kahle et al 1986).

The literature therefore reveals that market segmentation remains a crucial element of modern marketing strategy. Marketers, more so than ever, realize that to develop successful marketing strategies, they must understand how markets are segmented and how consumer behaviour differs from one segment to another(Boyd, 1990).

The literature however also reveals that psychographics, as a measure to include in segmentation studies, has declined in popularity. This, despite the fact that psychographics was an extremely popular segmentation variable in the 1970's and promised to offer the marketer 'in-depth' information on consumer behaviour which, as the author has noted, is so critical for the designing of effective and competitive marketing strategies today.

Numerous published reports in the mid 70's argued persuasively for the inclusion of psychographic measures . These researchers provided evidence of important benefits that psychographic measures could offer to the marketer if included in a segmentation study (Wells 1974, 1975; Ziff 1974; Wells et al, 1971; Plummer 1974).

Results of psychographic segmentation research were however NOT always positive. Critics began to point out the low predictive validity of psychographic measures (Peter et al, 1990 p 411) and that the discrimination between the market segments was often poor(Lastovicka et al,1990). In addition it appears that there was no explicit theory to guide the development of psychographic research and as a result there were a variety of different approaches adopted by marketers to the definition and operationalization of psychographics. (Anderson, 1984; Wilkie, 1990; Assael, 1987; Bernstein 1978)

As a result of these problems, the use of psychographic measures in segmentation studies appears to have dramatically declined. Psychographics has lost the appeal it had in the seventies. The more recent published literature, in fact, pays very little attention to psychographics and those few articles that do focus on psychographics, question its validity, reliability and usefulness. (Lastovicka, 1990; Anderson 1984)

After its popularity in the 70's, psychographics has thus over the past ten years become somewhat of a controversial issue. It attracts criticism in the literature (Wilkie, 1990 p 114) and is regarded with skepticism by many market researchers.

The potential usefulness of employing psychographics in segmentation studies is therefore being strongly questioned.

It is the author's intention in this thesis to review the literature surrounding psychographics and market segmentation and to address the conflicting issues that surround the benefits that may or may not be gained by including psychographic measures in a segmentation study. The author intends, through empirical research, to assess whether there is benefit to include psychographic variables in a segmentation analysis. It is the authors intention however to critically examine psychographic variables in their role as potential descriptor variables only and not to base the segmentation study on psychographic variables.

2. Scope of the Study

It was noted by the author in section I of this Chapter that implementing a segmentation strategy requires three tasks:

- 1) Market Segmentation Analysis
- 2) Market Targeting
- 3) Market Positioning

This thesis is confined to task (1) - that is, market segmentation analysis.

The author also noted in section I that market segmentation analysis requires the selection of segmentation variables. These variables performed 2 roles:

- 1) Basis variable(s) provides the measure on which the market is segmented.
- 2) Descriptor variables provide information for profiling the segments.

It is the authors intention in this thesis to critically assess the contribution of psychographic measures in their role as descriptor variables only.

The market will be segmented on the basis of usage and the contribution of the psychographic variables in the profiling of the resultant user groups will be assessed.

In summary the scope of this thesis is limited to the segmentation analysis task only. Furthermore, the contribution of psychographic variables to the segmentation analysis will be assessed in their role as descriptor variables in the profiling of the resultant market segments.

3. Limitations of the Study

In the empirical research phase of this thesis, the author will undertake a single segmentation analysis. This will be a study of the fresh mushroom market in South Africa.

Only existing fresh mushroom consumers will be included in the study.

The study is therefore limited to a single segmentation analysis and any conclusions drawn are based on the findings of a single study conducted for one particular industry only.

Furthermore the consumers to be selected for the segmentation analysis, since they are confined to existing mushroom users only, are not representative of all the adult population in South Africa.

4. Layout of the Thesis

This thesis is divided into nine Chapters.

Chapter one provides a brief introduction to the subjects of market segmentation and psychographics and defines the scope and limitations of this study.

Chapter two outlines the main and sub-problems to be addressed and the objectives of the study. Details as to the particular application area of this thesis - namely the fresh mushroom industry are also provided.

Chapters three to six provide a review of the literature on market segmentation and psychographics. Chapter three provides an overview of market segmentation. Key tasks in the implementation of a market segmentation strategy are identified and criteria for ensuring an effective segmentation analysis are detailed. Chapters four to six focus on psychographics. In Chapter four the author details the origins of psychographics and highlights the confusion and lack of definition surrounding the terms psychographics and lifestyle. Based on these findings a conceptual and operational definition for this thesis is proposed. Chapter five focuses on the application of psychographics to market segmentation studies while Chapter 6 highlights the criticism and problems typically associated with psychographic segmentation studies.

Chapter 7 is divided into 2 parts. In part I, based on the findings in the literature review, the hypotheses to be tested in the empirical research are detailed. In part II the methodology to be employed in the empirical research phase is outlined.

Chapter eight focuses on the results of the research. Part I provides a summary profile of all the respondents.

Part II details the findings of the segmentation analysis. Through the use of discriminant analysis the contribution of the psychographic variables in the profiling of the market segments is critically assessed.

In Chapter nine, the author draws conclusions and makes recommendations on the inclusion of psychographics in a segmentation study. Finally areas that may warrant future research are identified by the author.

CHAPTER TWO

THE PROBLEM AND ITS SETTING

INTRODUCTION

As the title of this thesis suggests, psychographics and market segmentation are the two main subjects of this study.

Specifically, the author intends to evaluate the contribution of psychographics in the profiling stage of a market segmentation study of the South African fresh mushroom industry.

In section one of this chapter, the exact nature of the problem to be investigated will be outlined. It will highlight the conflict that exists in the literature pertaining to this subject and show how this study intends to contribute further to the understanding of psychographics.

In section two, the research objectives will be detailed highlighting those that require empirical research.

1. Statement of the Problem

1.1 Statement of the Main Problem

The large body of literature concerning psychographics is tangible evidence that psychographic research has occupied the mind of many marketing theorists over the past few years.

The published literature does, however, reveal that there is a lack of consensus as to the potential usefulness of including psychographics in segmentation research.

Wind and Green (1974 p 100) comment as follows:

'.... the reaction to psychographic research among marketing practitioners is a mixed one. Some view it as a necessary and extremely important part for any consumer study while others have considerable reservations as to its usefulness'. This opinion still appears relevant today (Wilkie 1990; Anderson 1984).

Marketers appear to be divided on two key issues relating to the inclusion of psychographic variables in segmentation studies:

Firstly, marketers are divided on the true benefits that may or may not be reaped from including psychographics in a segmentation study (Bernstein 1978 p 78; Ziff 1971 p 3).

Secondly, marketers are divided on the role that psychographics should play in the market segmentation process. Psychographic variables may be included in a segmentation study either as basis variable(s) and/or as descriptor variables to profile the resultant segments.

The supporters of psychographic research argue for the inclusion of psychographic measures in segmentation studies despite it being a very expensive and time consuming 'tool'. They state that it is particularly useful for developing market segmentation strategies providing not only a useful basis for segmentation but also

enriching the descriptive profiles of the target segments. Furthermore, they state that some new products, successful new advertising campaigns and repositioning strategy's were at least partly based on psychographic information.

These supporters of psychographic research believe that psychographic variables are useful as a basis for segmentation as well as for profiling of resultant segments (Wells 1975).

Other market researchers, though still supporting the inclusion of psychographic variables in a market segmentation study, believe that the psychographic variables are useful only as descriptors in the profiling of resultant segments.

Engel et al 1990 p 238 comment as follows:

'Psychographic studies are used to develop an indepth understanding of market segments. Sometimes marketers use psychographics to define segments, but a better practice is to avoid definition of the segments through Activities, Interest , and Opinions in favour of using Activities, Interest, and Opinions to better understand segments that have been defined with more traditional variables.'

The 'detractors' of psychographic research argue against the inclusion of psychographic variables in a segmentation study. They deny that psychographic variables are useful either as the basis variable(s) or as descriptors of the resultant segments. Furthermore, these critics argue that psychographic research is too expensive, suitable only for certain types of products and subject to abuse by researchers.

In this thesis, the author intends to address the unresolved conflicting opinions that surround the value that may or may not be gained by including psychographics in a market segmentation study. It is the authors intention, however, to address only the debate that surrounds the inclusion of psychographic measures as descriptor variables in the segmentation process.

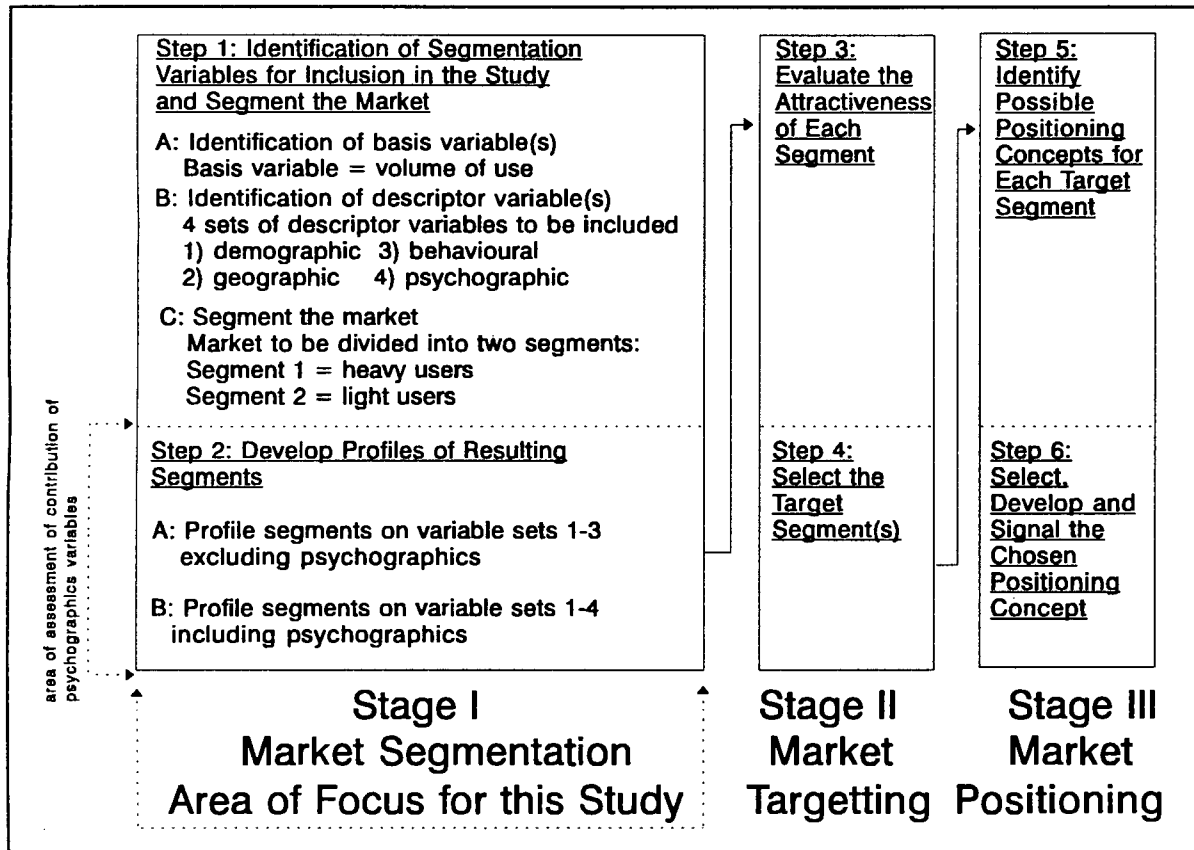
The main problem that will therefore be addressed by the research will be to critically assess the contribution that psychographic variables could make in the identification and profiling of resultant market segments.

The main problem will be addressed in the context of a segmentation study of the South African fresh mushroom industry. (Further details will be provided in section 1.2.2 of this chapter). Based on the empirical research it is the authors intention to provide empirical evidence that will help in reducing the conflicting debate that surrounds the potential usefulness of including psychographic measures as descriptor variables in a segmentation study.

Figure 2.1 overleaf outlines the stages in the development and implementation of a segmentation strategy. It highlights the first stage, namely the market segmentation process, as the area of focus for this thesis. From figure 2.1 it is evident that the market segmentation process consists of two steps:

- 1) The first step is to identify the variables for the segmentation model and to segment the market. For reasons that will be detailed further in section 1.2.2 of this chapter, the basis variable selected for this study will be volume of use. Four sets of variables, namely demographic, geographic, behavioural and psychographic variables, will be included in the study as potential descriptor variables.
- 2) In the second step, it is necessary to identify and profile the resultant market segments on their distinguishing characteristics. It is at this stage in the segmentation process that the contribution of psychographic variables will be assessed.

Figure 2.1 Identification of Tasks in the Implementation of a Market Segmentation Strategy for the South African Fresh Mushroom Industry



Source: Adapted from Kotler, 1988 p.280

In order to critically assess the contribution of the psychographic variables to the segmentation process it is necessary to assess whether, by the inclusion of the psychographic measures as descriptor variables, the effectiveness of the segmentation scheme has been enhanced.

The literature reveals that in order for a segmentation scheme to be effective three criteria must be satisfied: (Cravens 1991 p 165)

- 1) Segments must exhibit variation in market demand and behaviour
- 2) Segments must be of sufficient size and be stable
- 3) Segments must be identifiable

The satisfaction of criteria 1 and 2 are dependant primarily on the segmentation procedure and selection of the basis variable.

The satisfaction of criteria 3 is, however, largely dependant upon the contribution of the descriptor variables. Segments isolated in step 1 of the market segmentation procedure (refer figure 2.1) must be able to be feasibly identified, described and reached through a specific marketing mix. Furthermore, the literature reveals that the descriptor variables that are used in step 2 of the segmentation process to identify and profile the market segments must be highly correlated to the basis variable (Engel et al 1972 p 7-8).

In order, therefore, for descriptor variables to be of value in the segmentation process and to ensure that the third criterion for an effective segmentation scheme is satisfied, they must :

- 1) Be related to the response differences between the segments
- 2) Identify and describe the resultant segments.

The question that therefore arises is whether or not psychographic measures could provide variables that are related to the basis variable and that provide useful information for distinguishing between and describing the resultant market segments. The issue to be investigated in this study is whether a segmentation scheme could prove to be more effective if, by the inclusion of psychographic variables, an improved identification and description of the market segments resulted.

The author, therefore, intends in this thesis to address the question of enhancing segment identifiability (where the segments are based on volume of use) through the inclusion of psychographic variables hypothesized to be relevant to the product under study.

In summary, the thesis focuses on psychographics as descriptor variables. The author will assess the contribution of psychographic variables in the profiling of market segments based on a usage segmentation analysis. The thesis in NO way attempts to assess the role of psychographic variables as a basis on which to segment the market.

1.2 Statement of the Sub-Problems

1.2.1 Conceptual and Operational Definition of Psychographics

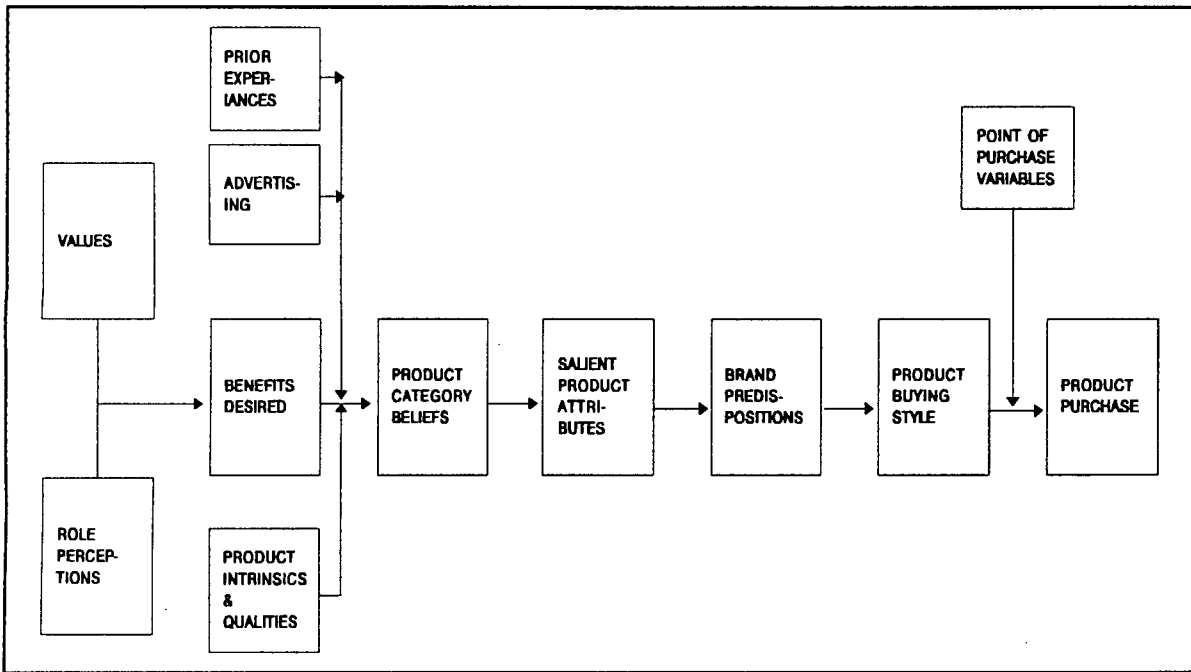
Though much of the debate in literature with respect to psychographics pertains to its usefulness in the development of marketing strategy, there is also much debate as to the basic definition and measures of psychographics (Anderson et al, 1984).

The literature review in chapters 4,5 and 6 will reveal that there is no universally accepted conceptual and operational definition of psychographics nor much theoretical foundation or empirical findings on which to base the decision.

This thesis is attempting to address this problem in the literature review. In Chapter 4, the author will adopt a definition of psychographics in its broadest sense as it was intended when the term was first introduced to the literature. The operationalization of the concept is based on this definition. Specifically, the selection of the measures of psychographics is guided by a model (adapted by the author for this study) hypothesized to represent those measures that are relevant and therefore impact on consumer behaviour with respect to the product under study. Refer figure 2.2.¹ The critical evaluation as to the usefulness of psychographics will therefore be based on this conceptual and operational definition.

¹ The background and rationale to the selection of the definition of psychographics and the model will be detailed by the author in chapter 4 of the literature review.

Figure 2.2 Hypothetical Model of the Hierarchy of Effects on Product Purchase Behaviour



1.2.2 Tongaat Mushrooms²

The South African mushroom industry has developed from a relatively small farming business into a technologically advanced industry valued at over R85 million.

Fresh mushrooms are predominantly consumed in South Africa by upper/middle income white households. (Refer Appendix A, Section 5)
 Rapid growth over the past 5 years has attracted a number of new competitors to the industry and resulted in existing competitors expanding their capacities to keep abreast with demand. These competitors are all regionally based. (Refer Appendix A, Section 4).

The balance of the market is dominated by the firm Tongaat Mushrooms who markets the national brand leader — Denny. Tongaat Mushrooms has allocated significant funds to upgrade and expand its production facilities.

² A detailed overview of the South African fresh mushroom industry is provided in Appendix A.

In addition it has allocated funds to advertising in order to educate the consumers on mushroom usage. This had led to a market that has almost doubled in size over the past ten years. Tongaat Mushrooms has been able to meet this increase demand by expanding its production facilities.

The market growth rate, however, for the first time in six years, appears to be levelling off. (See Appendix A, Section 2). 1991/92 Volumes are forecast to be down 1% on 1990 and the company forecasts a further decline of 15% for the forthcoming financial year (1992/1993). Due to the expanded production facilities there is therefore the likelihood that **SUPPLY** might exceed **DEMAND** in the near future.

This scenario obviously has severe implications for Tongaat Mushrooms. Tongaat Mushrooms wishes to address this problem by stimulating the growth of the fresh mushroom market.

There are two factors Tongaat Mushrooms could investigate in order to achieve this objective:

- 1) Firstly the non users of fresh mushrooms could be investigated and a strategy developed to encourage their consumption of the product.
- 2) Secondly the existing users of fresh mushrooms could be investigated and a strategy developed to increase their usage of the product.

Tongaat Mushrooms intends to address both of these options. The scope of this thesis is confined to the second option. In order to increase the per capita consumption of mushrooms amongst existing users the company proposes to undertake a market segmentation study of these consumers.

Evidence in the literature indicates that such a market segmentation study, if implemented correctly will enable Tongaat Mushrooms to more clearly understand and serve customer expectations within its current customer base. In addition, adopting a market segmentation strategy, it is said,

results in increased marketing efficiency as the marketing mix can be directed to the target segment in a manner consistent with that segment's distinguishing characteristics.

In order to implement this segmentation study, Tongaat Mushrooms has elected in advance to segment the market on the basis of volume of use. Based on this variable, they wish to segment the market into two groups - heavy users and light users. The psychographic variables together with the demographic, geographic and behavioural variables included in the study would then be used to profile these two resultant segments.

Based on the findings of the market segmentation study, Tongaat Mushrooms wishes to evaluate the appropriateness of their current marketing strategy as a means to increasing mushroom consumption amongst 'light' users of fresh mushrooms.

1.2.3 Usage Segmentation

The author has already indicated that the fresh mushroom market is to be segmented on the basis of volume of use. Existing consumers are to be divided into two groups - namely heavy users and light users. These two groups will then be profiled on their distinguishing characteristics.

Past research, however, has shown that purchase concentration is not always a simple function of obvious demographic factors (such as income, household size etc) (Louden et al, 1989 p 129). Evidence suggests that there is relatively little association between household usage of a particular product category and demographic characteristics. (Ferber, 1962 p 19-63; Frank et al, 1967).

For example - Frank, Massy and Boyd in 1961 were only able to account for a maximum of 29 percent of the variance in quantity purchased of fifty-seven frequently purchased products on the basis of fourteen socio-

economic and demographic characteristics (the average percent of explained variance was only 10%) (Frank et al, 1961).

There seems to be general agreement in the literature that the degree of association (or correlation) between demographic characteristics and consumption of frequently purchased products appears to be quite small.

A problem, therefore, associated with the selection of a usage segmentation strategy is that the resultant segments may NOT always be easily identifiable using the more traditional variables (eg demographics) as descriptors. Identifiability is, however, one of the 3 criteria for an effective market segmentation strategy. (Refer Section 1.1).

The question that therefore arises, is whether or not psychographic variables could provide measures that are more useful in distinguishing the various purchase intensities?

This sub-problem is therefore an extension of the main problem to be addressed in this thesis. The author will assess and compare the contribution of the psychographic variables as an addition to the more traditional demographic, geographic and behavioural variables employed in the profiling stage of a segmentation study.

2. Objectives of the Research

Main Objective: To critically assess the contribution of psychographic variables in the profiling stage of a market segmentation study of the South African fresh mushroom market.

Sub Objectives: To develop a conceptual and operational definition of psychographics based on a literature review of the subject.

To segment the fresh mushroom market on the basis of volume of use into 2 segments - a group of heavy users and a group of light users.

To identify significant demographic, geographic and behavioural descriptor variables that distinguish between heavy users and light users of fresh mushrooms.

To identify significant psychographic descriptor variables that, in addition to the demographic, geographic and behavioural variables, distinguish between heavy users and light users of fresh mushrooms.

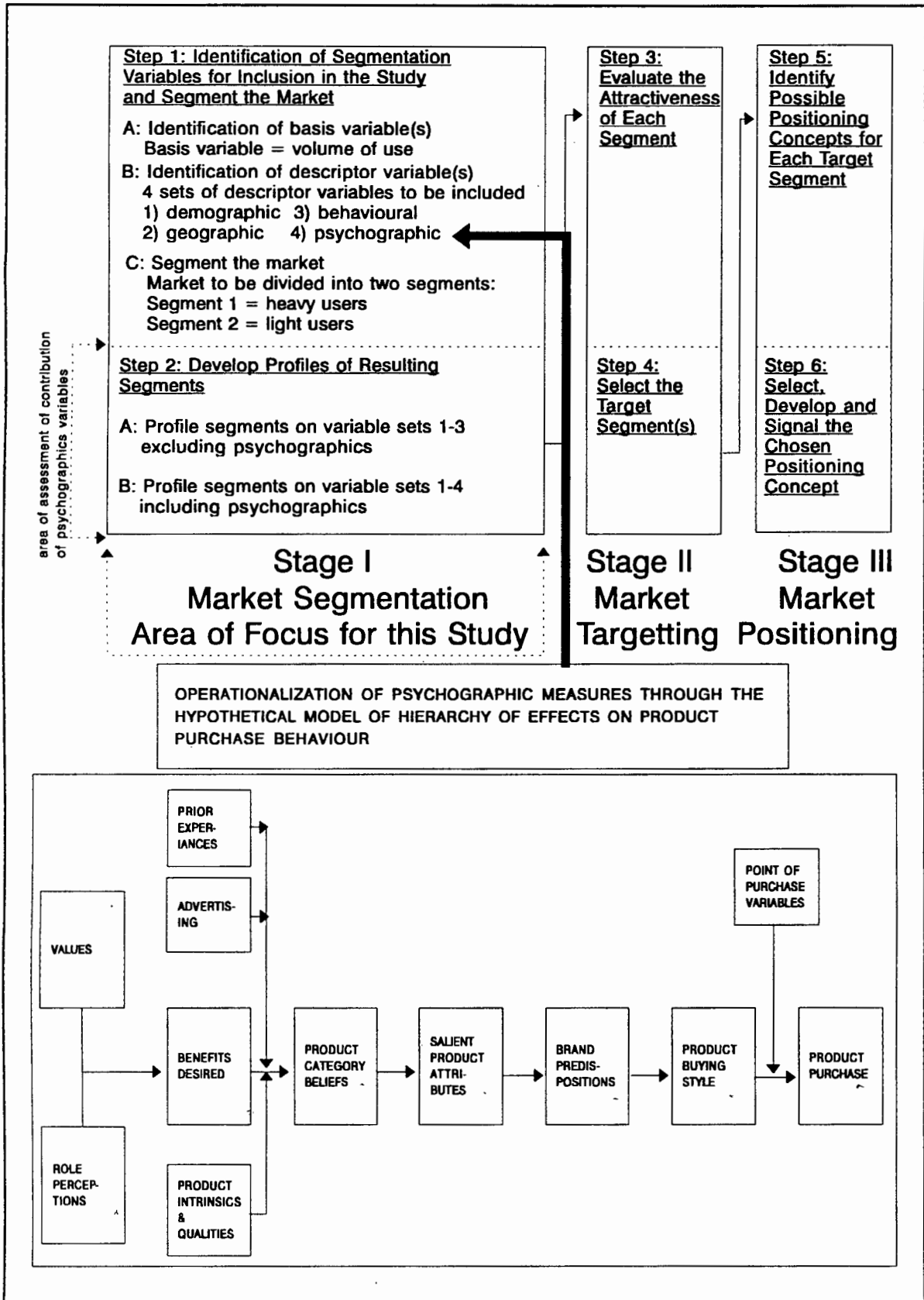
To evaluate the contribution of the psychographic descriptor variables in the distinguishing and profiling of the resultant market segments.

SUMMARY

In this chapter the author has outlined the main problem to be addressed in this thesis. It is the author's intention to assess the contribution of psychographic variables in the profiling stage. (Step 2, Stage I as reflected in figure 2.1) of the segmentation procedure. The question that will be addressed is whether, by the inclusion of psychographic measures, segment identifiability (one of the three criteria for ensuring an effective market segmentation study) is enhanced.

Figure 2.3 provides the conceptual framework for this study. In the following chapter 3 the author will present an overview of the market segmentation procedure focusing on Steps 1 and 2 in figure 2.3. Chapter 4,5 and 6 will focus on theory surrounding psychographics and the rationale for the operationalization of psychographics as depicted in figure 2.3.

Figure 2.3 Conceptual Framework to Guide the Implementation of Research for this Study



CHAPTER THREE

MARKET SEGMENTATION

INTRODUCTION

The published literature provides much evidence of the popularity of market segmentation. Formulated by Wendell Smith in 1956, the concept of market segmentation, as this chapter will reveal, is one of the major ways of operationalizing the marketing concept.

The concept of market segmentation is based on the premise that consumers are different and that those differences are related to market demand.

The strategy of market segmentation then involves tailoring the firms marketing strategy and mix to these differences.

A company therefore adopts a market segmentation analysis in the hope that it will increase its marketing efficiency and effectiveness (and thereby gain a competitive advantage) by directing its efforts more specifically toward the designated segment in a manner that is consistent with that segments' characteristic needs and wants.

Chapter Three will reveal that market segmentation is not simply 'cutting up the market' into identifiable groups who may/may not be better prospects for a particular product/service. Market segmentation should, if implemented correctly, be seen as a means of achieving marketing goals by guiding marketing strategy executions.

As Mitchell Scott of Armstrong World Industries said:

'For us segmentation is used not so much to increase or decrease market targets as to more clearly understand and serve customer expectations within the customer base we currently have. By selling more to these resegmented markets, the end result is the same - increased sales and profits' (Scott, 1991 p 39).

In this chapter, the author attempts to provide an overview of the theory of market

1. Market Segmentation - an overview

Section 1 provides an overview of the origins of market segmentation, as well as the growth in acceptance of it as a basis on which to formulate marketing strategies.

1.1 Origination of the Concept

The marketing concept holds that the key to achieving organisation goals consists in determining the needs and wants of target markets and delivering the desired satisfactions more effectively and efficiently than competitors (Schiffman, 1991 p 13-15).

It was not by accident that the concept of market segmentation emerged early in the evolution of the marketing concept.

It was originally pioneered and defined by Wendell R Smith (1956) as follows:

'Segmentation is based upon developments on the demand side of the market and represents a rational and more precise adjustment of product and marketing effort to consumer or user requirements. In the language of the economists, segmentation is disaggregative in its effects and tends to bring about recognition of several demand schedules where only one was recognized before' (Smith, 1956 p 5).

1.2 A Basic Market View

There is much evidence that consumers today are demanding customised products and services at competitive prices.

In the 1990's, companies are increasingly faced with the challenge of effectively satisfying the needs of consumers who can choose from a multitude of alternatives. Understanding the variation in buyers' needs and wants has therefore become critical in the designing of marketing strategies.

As a result, marketers, in many instances, adopt a market segmentation strategy

in order to compete successfully in the market place. The reasons for this are as follows:

- 1) Marketers are recognizing that NOT all consumers are alike and that their differences can have a profound effect on market demand.
- 2) Marketers also recognize that the presence of unfulfilled consumer needs provides a market opportunity, that if capitalized on, could provide potential for growth and profit.

Yoram Wind comments as follows:

'Market segmentation has long been considered one of the most fundamental concepts of modern marketing. Besides being one of the major ways of operationalizing the marketing concept, segmentation provides guidelines for a firm's marketing strategy and resource allocation amongst markets and products. Faced with heterogeneous markets, a firm following a market segmentation strategy usually can increase the expected profitability which provides a major theoretical rationale for the segmentation concept.' (Wind, 1978 p 317).

1.3 The Logic of Market Segmentation

From the previous section it can be said that the logic of market segmentation is quite simple : it is based on the idea that a single product usually will not appeal to all customers. Consumers purchase goals, product knowledge, involvement and purchase behaviour vary and successful marketers often adapt their strategies to appeal to specific consumer groups. While a single product will seldom appeal to all consumers, it can almost always serve more than one consumer; thus, there are usually groups of consumers who can be served well by a single item. If a particular group can be served profitably by a firm, then it comprises a viable market segment. A marketer should then develop a marketing mix to serve that group.

1.4 When to Segment

The opportunity for segmentation occurs when differences exist in buyers' demand

functions so that market demand can be disaggregated into segments with distinct demand functions. (Dickson et al, 1987 p 1-10).

In reality, a company has two basic strategic options : to segment the market or to treat the entire market as potential customers for its goods or services; this latter option means that the firm uses an undifferentiated marketing strategy. While there are few companies that can minimise their costs and maximise their returns with an undifferentiated strategy, there are situations in which segmentation is NOT appropriate. Young, Ott & Feign (1978 p 405-412) propose that in three specific instances segmentation would not be a useful strategy to adopt:

- 1) The market is so small that marketing only to a portion of it is not profitable.
- 2) Heavy users make up such a large proportion of the sales volume that they are the only relevant target market.
- 3) The brand is the dominant brand in the market.

Young et al, conclude that it is important to determine whether a segmentation strategy is appropriate and possible before large sums of money are wasted on research that does not address the market situation (Young et al, 1978 p 411).

This conclusion should, however, not detract from the benefits a successful market segmentation analysis may provide.

In contrast to Young et al's (1978 p 411) conclusion, Engel et al (1990 p 662-676) state that as market segmentation analysis is so critical to the development of sound marketing strategy, it can seldom (if ever) be ignored. 'Even if the final decision is to 'mass market' and not to segment at all, this decision should be reached after a segmentation analysis has been undertaken.'

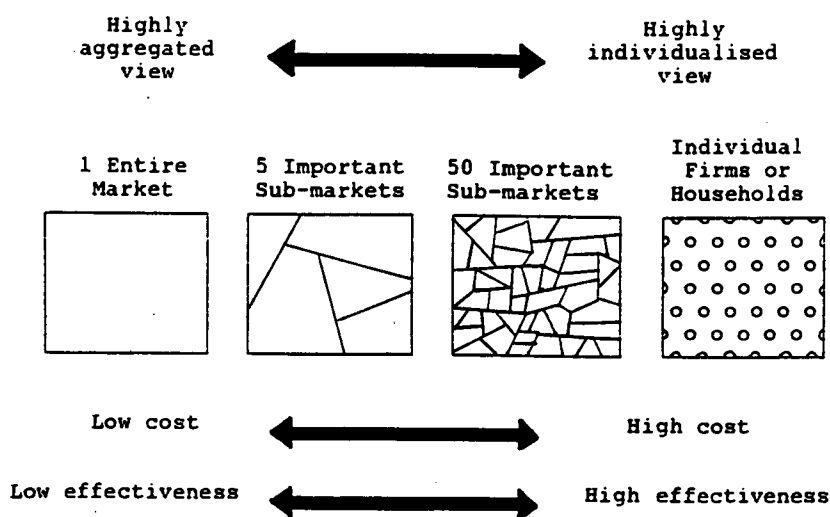
The following section outlines the major benefits to be gained from undertaking a segmentation analysis.

1.5 Benefits of Segmentation

As stated prior, in most companies significant differences amongst customers are recognised and used as a basis for marketing planning.

The most basic advantage offered by market segmentation is that it provides us with a structured means of 'viewing' the market place (which may consist of millions of consumers) confronting a firm (Wilkie, 1990 p 96-97).

Figure 3.1 : Alternative Views of the Market



Source: Wilkie 1990 p 97

Figure 3.1 depicts alternative views of the market. At the left, with no segmentation, consumers are all grouped together and viewed as a single market. If there are significant differences within the market (as invariably there are) it becomes difficult to describe the market. As a consequence, an aggregate view of the market provides little guidance for strategy development.

At the other extreme (the right of fig. 3.1), each consumer is viewed individually. This offers considerable insight into a single customer's behaviour and permits the

marketer to develop an offering specifically tailored to meet the needs of that individual (or firm). The drawbacks, of course, are the feasibility and costs of viewing each customer individually.

Thus, the marketer is faced with a situation as shown in fig. 3.1 in which costs and effectiveness are likely to move in the same direction. Viewing the market as a single aggregate is low in cost, but also low in effectiveness. Viewing the market as thousands or millions of individuals, on the other hand, is high in effectiveness but very high in cost. There are so many individual consumers in most markets that they must somehow be grouped together if management is to have any chance of understanding, much less reaching, a sizeable portion of the market.

The middle boxes of fig. 3.1 represent moves to segmented views of the market.

Segmentation studies are thus designed to discover the needs and wants of these specific sub-markets so that specialized goods can be developed and promoted to satisfy their specific needs.

A second important advantage that market segmentation affords marketing managers is that it provides them with the FOUNDATION on which to BASE their MARKETING STRATEGIES.

Target segmentation is the important first step in the development of a marketing strategy and provides the cornerstone on which to base further marketing decisions. Once the market has been segmented then the selection of an appropriate target market and positioning strategy is of paramount importance for the development of successful marketing campaigns (Engel et al 1990; Schiffman 1991 p 25).

In addition to the above two major advantages, segmentation analysis provides the following further benefits:

- 1) Marketers, once they understand consumer's needs, will generally be in a better position to direct marketing programs to satisfy these needs (Engel et al, 1972 p 3; Boyd et al, 1990)
- 2) If a continuous program of market segmentation is adopted, it will enhance managements capabilities of identifying and tracking changing market demands (Engel et al, 1972 p 3; Yankelovich, 1964 p 83).
- 3) Management is better able to evaluate market competition, in particular in relation to the company market position. A segmentation study explores the firms market position, how the firm (specifically the product) is perceived by its customers and potential customers relative to the competition (Weinstein, 1987 p 11).
- 4) In addition, segmentation leads to more effective allocation of marketing resources - product and advertising appears to be more easily co-ordinated and media plan can be developed to minimize waste through excess exposure (Yankelovich, 1964; Assael, 1987 p 270; Loudon et al, 1988, p 79-150).

In summary, market segmentation can offer significant advantages as a competitive strategy and as a guide to market planning and analysis. It provides the necessary research base upon which all other marketing strategies can be formulated.

Kotler comments as follows:

'Companies are increasingly embracing target marketing - it helps sellers identify market opportunities better. They can develop the right offer for each target market. They can adjust their prices, distribution channels and advertising to reach target markets effectively. Instead of scattering their marketing effort, i.e. the 'shotgun approach', they can focus it on the buyers with whom they have the greatest chance of satisfying - i.e. the 'rifle approach'' (Kotler, 1988 p 280).

1.6 Cost/Benefits of Segmentation

Market segmentation can result in greater sales for a company, but at higher costs. Typically, manufacturing costs are higher because of shorter production runs and research costs are higher because of the need to investigate more segments. In addition, promotion costs are higher when quantity media discounts are lost and increased creative costs incurred (Loudon et al, 1988 p 82). Of course, the goal is to increase revenue more than costs, thus raising profits (Winter, 1979 p 103-111).

Any segmentation study adopted by a company should therefore result in increased sales/profits that more than outweigh the additional cost likely to be incurred.

1.7 A Formal Definition

To conclude this overview, the following definition of market segmentation will be adopted throughout this thesis.

Market segmentation is the process of placing the potential customers in a product market into sub-groups each of which will respond similarly to a particular marketing positioning strategy (Kotler, 1988 p 280; Cravens, 1991 p 163).

A Market segmentation strategy is the selection of one or more market segments to be targeted with a distinct marketing mix by an organisation (Dickson et al, 1987 p 6).

A distinction between the market segmentation process and market segmentation strategy has been drawn purposely. The former is concerned with the process of segmenting the market, ie. of identifying customer groups within the market, while the latter is a strategy based on the results of the segmentation process. This thesis focuses on the market segmentation process.

1.8 Summary

In summary, because of the diversity of consumers needs and wants and the

marketers have found it to be more advantageous to segment their markets and concentrate the marketing of their products to specific groups rather than the market as a whole Yankelovich (1964 p 83) states that

1. In today's economy, each brand appears to sell effectively to only certain segments of any market and not to the whole market.
2. Sound marketing objectives depend on knowledge of how segments which produce the most customers for a company's brand differ in requirements and susceptibilities from the segments which produce the largest number of customers for competitive brands.

By adopting a segmentation strategy one is, therefore, able to improve one's competitive position and better serve the needs of one's customers.

The following section will outline the criteria necessary for an effective segmentation strategy.

2. Criteria for Market Segments

Segmentation studies are said to frequently produce results that are of limited use (Haley, 1984). The literature, reveals that three requirements must be satisfied in order for usable segments to be developed:

1. Segments must exhibit variation in market demand and behaviour
2. Segments must be of sufficient size and stable
3. Segments must be identifiable

2.1 Variation in Market Behaviour

Variability in demand functions across the buyers in a product-market creates segments. Opportunities for segmentation, therefore exists when buyers needs and wants are different.

The presence of 'real' segments, however, requires actual response differences (Cravens, 1991 p 165).

An example best illustrates this point.

Suppose that customers in a product market are divided into two groups, each a potential segment. If each group responds (for example, by volume of use) in the same way as the other group to the marketing mix strategy, then the groupings are NOT market segments. If segments actually exist in a product market, a different marketing program strategy will work best for each segment.

In order for market segments to be meaningfully defined they must show clear variation among themselves in response to changes in the marketing mix. If the different market segments satisfy this first criteria, then they will exhibit different elasticities with respect to the pricing and promotional policies of a firm (Engel et al, 1972 p 8; Frank et al, 1965 p 186-200).

2.2 Identifiability

Even if measurable differences in consumer attributes have been established, segments thus isolated must still be able to be feasibly identified and reached

through promotional efforts (Engel et al, 1972 p 7-8; Schiffman et al, 1991 p 45-46). Furthermore the literature reveals that the descriptor variables used to identify and profile the segments must be related to the response differences.

Specifically, a marketing mix must be able to be developed to reach efficiently and appeal differentially to the possible segment grouping.

Cravens (1991 p 165-166) states that an organisation must be able to run a marketing programme strategy at each segment that is selected as a market target.

Furthermore, marketers must be able to reach the market segments they wish to target in an economical way. He concludes as follows:

'Ideally, the targeting effort should focus on the segment of interest and not be wasted on non-segment buyers. In some situations, promotional efforts for one product or brand may actually attract (cannibalise) customers from another segment targeted by the same organisation using a different brand.'
(Cravens, 1991 p 166).

2.3 Sufficient Size and Stability

A segment must offer sufficient size and market potential to be of any significance. Ideally this purchase potential should be able to be identified and measured.

In addition, the segments should show adequate stability over time so that the firm's efforts will have enough time to succeed. If buyers' needs are changing so rapidly, a segment with similar response patterns at one point could display quite different patterns several months later. The time period may be too short to justify a segmentation strategy (Cravens, 1991 p 166).

The three above-listed requirements are useful in evaluating a proposed segmentation scheme. In concept, the requirements (for a true market segment) should now be clear : the search is for a customer grouping that:

- 1) will behave differently from other groups.
- 2) can be identified and will be responsive to an efficient marketing

mix aimed at it.

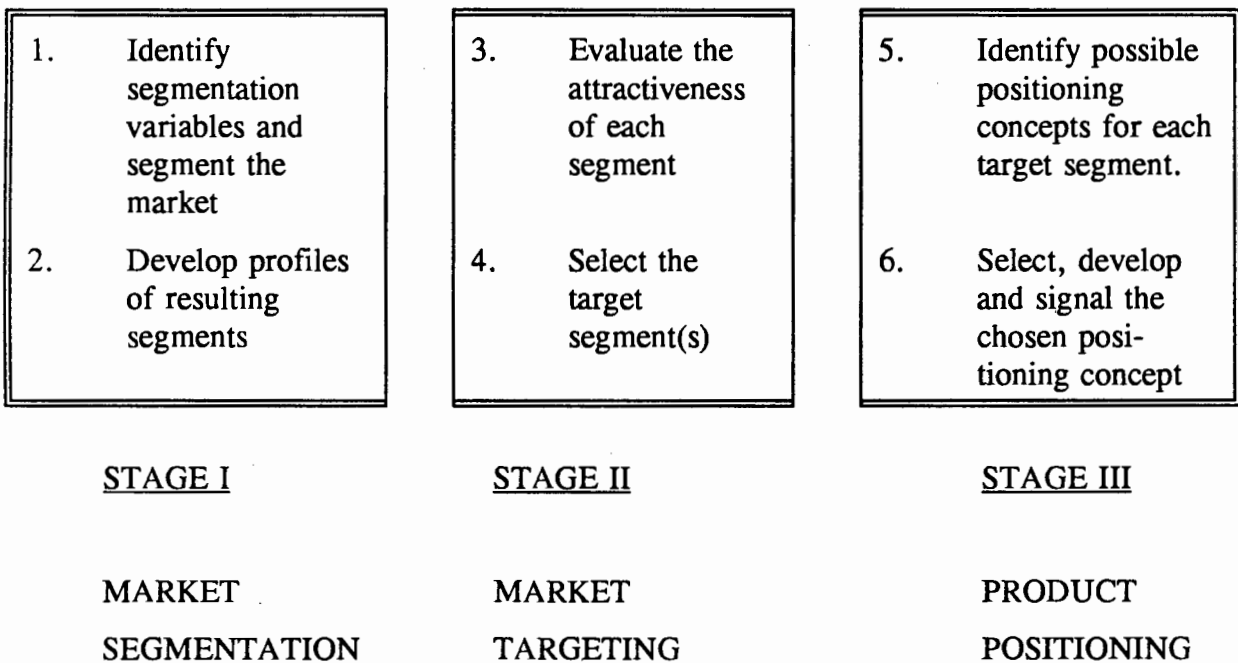
- 3) will be of substantial size.

The ultimate criterion is, of course, performance. If segmentation leads to improved performance (profitability) in a product-market then it is worthwhile.

3. Identification of Tasks in a Market Segmentation Strategy

The market segmentation process is just the first stage in implementing a market segmentation strategy (Cravens, 1991). In practice, a full application of market segmentation consists of three basic stages as shown in Figure 3.2 below; each stage involves two key action steps (Kotler, 1988 p 280).

Figure 3.2 Tasks in a Market Segmentation Strategy



Source: Kotler, 1988 p 280.

STAGE I Market Segmentation

The first stage involves dividing the consumer market into meaningful buyer groups who, by virtue of distinct characteristics such as needs, use patterns, demographics, etc., represent 'opportunities' for distinct products and/or marketing programmes. The company identifies different ways to segment the market and develops profiles of the resulting market segments. Consumer research plays the primary role in this stage.

STAGE II Market Targeting

The second stage involves developing measures of segment attractiveness and selecting one or more market segments to enter. This will differ for each firm depending on a host of strategic and competitive considerations.

STAGE III Product Positioning

The third stage involves establishing a viable competitive positioning of the firm and its offer in each target market.

In summary then, there are three basic stages involved in a marketing segmentation strategy. After segmenting the market into homogeneous clusters, the marketer must then select one or more segments to target with a specific product or promotional appeal. The third stage is to position the product so it is perceived by each target market as satisfying its needs better than other competitive offerings.

As the author stated in Chapter 2, the problem to be addressed in this thesis focuses on the contribution that psychographics can make to the market segmentation process. In particular, psychographic variables will be evaluated on their ability to enhance segment identifiability in the profiling stage of the segmentation process. The author will, therefore, focus exclusively on this first stage - the market segmentation process for the remainder of this Chapter.

In the following two sections the author will respectively discuss

- (1) the alternative segmentation variables available for segmenting and profiling of the target segments and
- (2) alternative approaches to forming market segments.

4.2 Identification and Classification of Segmentation Variables

As sub-sections 4.2 and 4.3 will highlight, there are a great many variables available to marketers for the purposes of market segmentation. A review of the literature, however, reveals two key points:

- 1) The major alternative variables for segmentation are geographic, demographic, psychographic and behaviouristic (Weilbacher, 1967 p 27-31).

- 2) There have been varying approaches as to the classification of segmentation variables. Table 3.1 highlights just some of the different segmentation orientations proposed by different authors.

Alternative Classifications of Market Segmentation Variables for Consumer Markets

	BROAD CLASSIFICATION	MEASURES INCLUDED
Kotler 1988	Consumer Characteristics Consumer Responses	Geographic/Demographic Psychographic/ Personality Occasion/Benefits/ Usage/Attitudes
Schiffman and Kanuk 1991	Geographic Demographic Geo-Demographic Psychosocial Socio-Cultural User Behaviour Benefits	Personality/Lifestyle Culture/Social Class/ Family Life Cycle Usage Situation/Rate of Volume/ User Status/ Brand Loyalty
Engel Blackwell Miniard 1990	Geographic Demographic Psychographic Behaviouristic Usage Situation	Lifestyle Extent of Use/Loyalty /Benefits
Peter and Olson 1990	Geographic Demographic Psychosocial Cognitive/Affective & Behavioral	Personality/Lifestyle/ Social Class Attitudes/Benefits Sought/Readiness Stage/ Perceived Risk/Inconvenience/ Involvement/Loyalty Status/ Usage Rate/ Usage Status/Usage
Czervins 1991	Purchase Behaviour Characteristics of People Usage Situation Buyers' Needs & Preferences	Volume of Use Geographic/Demographic/Psych ographic/ Lifestyles Attitudes/Brand Aware- ness/Brand Preferences
Berkowitz Kerin Rudelius 1989	Customer Characteristics Buying Situation	Geographic/Demographic/ Psychographic-Lifestyles and Personality Benefits/Usage/ Awareness & Issues/Buying Conditions
Wilkie 1991	Personal Characteristics Benefits Sought Behavioral Measures of the Consumer	Demographic, Geographic/Psych ographic Product Ownership & Use Volume Purchases Brand Loyalty
Weinstein 1987	Physical Attributes Behavioral Attributes	Geographics, Demographics & Socio-economics, Geo- demographics Psychographics vs Lifestyle Product Usage Benefits Perceptions & Pre-ferences Situation & Occasions
Frank Massey Wind 1972	General Customer Characteristics Situation Specific Customer Characteristics	Demographics & Socio- economics/Lifestyle & Personality/Attitudes & Behaviour towards Mass Media & Distribution Outlets Product Usage & Purchase Patterns, Attitudes towards Product & its Consumption Response to Specific Market Mix Variables
Haley 1984	Geographic Demographic Behavioral Psychographics	Volume of Use/Brand Loyalty/Use Occasion/ Situation Lifestyles/Values/Category Beliefs & Perceptions/Brand Pre-dispositions/ Benefits Sought & Problems Solved
Engel Fiorello Cayley 1972	Socio-economic Geographic Psychographic Product Usage Perceptual	Brand Loyalty Benefits /Product Preferences

4.2.1 Proposed Classification of Segmentation Variables

The literature reveals that any variable for segmentation can be classified as to :

- 1) The general or specific nature of the variable.
- 2) The nature of it's measurement procedure - objective vs inferred (Frank et al, 1972 p 27).

4.2.1.1 Classification by General Customer Characteristics

These variables attempt to classify consumers by their more general characteristics. Specifically, socio-economic and demographic characteristics, personality traits and general lifestyle measures (Activities, Interests and Opinions).

Common to all these variables is their independence of any product or service and the particular circumstances faced by the customer in making certain purchase and consumption decisions.

4.2.1.2 Classification by Situation Specific Customer Characteristics

These variables attempt to classify consumers based on their situation specific behaviour. Segments are therefore based on situation specific events, such as purchasers and users of specific products (for example: heavy users vs light users, brand loyal vs non-brand loyal users etc.)

4.2.1.3 Classification by Nature of the Measurement Procedure

Certain variables can be measured objectively, for example - demographics, consumption patterns etc.

Other variables, such as general personality traits and attitudes have to be inferred.

The four classification alternatives are summarized in Figure 3.3.

Figure 3.3 A Classification Scheme of Alternate Variables for Market Segments

		CUSTOMER CHARACTERISTICS	
		GENERAL	SITUATION SPECIFIC
MEASURES	OBJECTIVE	<u>Demographic</u> Age, Sex, Income etc <u>Geographic</u> Region, City, Suburb, rural vs urban etc	<u>Behavioral</u> Volume of Use, Usage Occasion and Situation, Brand Loyalty, User Status
	INFERRED	<u>Personality Traits</u>	<u>Psychographic</u> Benefits, Product/Brand Attribute Preferences, Values, Beliefs Category Perceptions, Lifestyles

Source : Adapted from Frank Massey and Wind, 1972 p 27.

4.2.1.4 Proposed Classification of Market Segmentation Variables

The author has elected to classify the variables for this market segmentation study according to Figure 3.3 as proposed by Frank Massey and Wind in 1972.

The author acknowledges that is just one of the possible approaches to the classification of market segmentation variables but it does provide a comprehensive framework particularly useful for this thesis. In addition, the approach to be adopted by the author covers the majority of the classification schemes listed in Table 3.1.

The author will now proceed to define and describe each of the variables detailed in figure 3.3 in Section 4.3. It should be noted that all the variables in Figure 3.3 could either be used as a basis for market

It has been found to be a useful base for segmentation since it is particularly easy to measure and, in addition, geographic segments can be easily reached through local media.

4.3.1.2 Demographic Segmentation

Demography refers to the vital and measurable statistics of a population. Demographic characteristics, despite their noted limitations, (Yankelovich 1964; Barnett 1969) are still a 'popular' basis for market segmentation most probably because demographic information is the most accessible and cost effective way to identify a target market (Schiffman et al, 1991 p 31-34) and is easier to measure than other segmentation variables. The major disadvantage of demographic segmentation is that it tends to be one dimensional and often fails to explain and predict consumption behaviour (Sheth, 1977 p 129-138).

4.3.1.3 Geodemographic Segmentation

Geodemographic segmentation is based on the notion that people who live next to one another have similar financial means, tastes, preferences, lifestyles and consumption habits. Geodemographic segmentation is said to be most beneficial when target consumers' personalities, goals and interests can be isolated in terms of where they live. However, it is said that for products used by a broad cross-section of the country, other segmentation schemes may be more productive (Schiffman et al, 1991 p 35).

4.3.2 Situation Specific Characteristics

Table 3.3 presents some of the behavioral variables which may be used as bases for and/or descriptors of market segments.

Table 3.3 Behavioral Segmentation Variables

SEGMENTATION VARIABLES	
BEHAVIORAL:	Volume of Use Brand Loyalty User Status Use Occasion Use Situation

Behavioral segmentation divides consumers into groups according to their usage patterns with respect to the product under investigation (Schiffman et al, 1991 p 40-42). Specifically behavioral variables include product/brand usage (for example: heavy users vs light users), brand loyalty, user status (for example: non users versus users) and usage occasion and situation.

In this section the author will devote special attention to volume segmentation as it is directly applicable to this thesis.(This will be further explained in Section 6 of this chapter).

4.3.2.1 Volume Segmentation

The literature reveals that total consumption for a given product or brand as a basis for segmentation is common practice of many marketing practitioners (Wilkie, 1990 p 121).

Volume segmentation is frequently accomplished by dividing the market into heavy and light users or heavy, light and non-users of the product and then examining their distinguishing characteristics.

Thus the marketer, in adopting a volume segmentation study, must measure consumption of the product and identify the characteristics that are useful

in distinguishing the various purchase intensities.

4.3.2.1.1 Evaluating the Effectiveness of a Volume Segmentation Study

By definition, the segmenting of the market in terms of heavy and light (or non) users results in between segment differences in average household purchasing rates. This basis, therefore, guarantees that the 'response behaviour' criterion (as identified by the author in Section 2) for a market segment is met (Frank in Engel, 1972 p 145).

In order to evaluate the effectiveness of a usage segmentation scheme, the researcher therefore has only to establish the extent to which customers in the different segments can be identified in terms of descriptor characteristics (eg. demographics and/or psychographics) as well as the extent to which the responses to promotion differ from one segment to another (Wilkie, 1990 p 121-122).

There is evidence in the literature that indicates that attempts to identify and profile 'usage' segments on traditional demographic measures have met with little success. The degree of correlation between the dependent variable (volume of use) and demographic variables is consistently said to be very low (Frank, Green and Sieber, 1967). Furthermore the addition of psychographic variables to the analysis has led to only slightly higher explained variances (Frank et al, 1972 p 63).

4.3.2.1.2 Applying a Volume Based Segmentation Strategy

Certain marketers prefer to aim their marketing efforts at the heavy users. The assumption is that the 'heavy half' is the most productive segment and hence should be the target of most marketing efforts.

'... many marketers operate by using the '80-20 Rule' - that 80 percent of my business comes from only 20 percent of my customers!' (Twedt, 1964 p 72). While 80-20 is not always accurate, it is often true that the heavy-

user segment provides a surprisingly high percentage of total product sales, and marketers do search to discover exactly who these heavy users are.

The reality is, however, that if heavy users already consume large volumes of the product, it is often difficult to increase their consumption.

(Engel et al, 1972 p 14) state that efforts should not be concentrated on the heavy half unless there is firm evidence documenting that it is not feasible to turn non-users into users and light users into heavy users.

Linneman and Stanton comment as follows:

'It makes sense to treat your twenty percent with respect. But it makes no sense to ignore your other eighty percent. Sometimes the light users can lead to new and potentially profitable market segments. So check out your light users.' (Linneman et al, 1991 p 28).

In many cases, the light users may never become the heavy users of 'tomorrow' but numerous studies cited in the literature bear testimony to the fact that light users when correctly targeted can be convinced to spend more on the product category (Trachtenberg, 1989) (Adkins, 1989).

Finally, the author acknowledges that volume segmentation has not always led to positive results on segmentation studies. This reason it is said may be because NOT all heavy users seek the same kind of benefits from a product category (Haley, 1968 p 30-35; Haley, 1971 p 3-8). Similarly, some products may be heavily used for different reasons (Dhalla et al, 1976 p 35).

4.3.2.2 Brand Loyalty Segmentation

Brand loyalty has also been used effectively as a basis for segmentation. In this instance marketers would attempt to identify the characteristics of their brand loyal consumers so that they could direct their promotional efforts to people with similar characteristics in the larger population. Again, however, the effectiveness of brand loyalty as a basis for segmentation is reduced by certain factors. Loyalty need not be based solely on high satisfaction with the brand. It may be due to sheer force of habit or to a desire to reduce risk associated with the purchase of unknown items (Cunningham, 1967 p 507-523).

Furthermore, instead of being confined to a single brand, loyalty may extend to two or more brands in the consumers' evoked set (Howard et al, 1969 p 211-212.)

Due to this lack of within segment homogeneity it has been found that loyal customers do not, as a rule, differ from 'brand switchers' either in their demographic/psychographic traits or in their sensitivity to marketing strategies such as pricing, dealing and retail advertising (Frank et al, 1965 p 186-200).

4.3.2.3 User Status Segmentation

Many markets can be segmented into non-users, ex-users, potential users, first time users and regular users of a product. High market share companies are always particularly interested in converting potential users into actual users, while smaller firms will try to get users of competitive brands to switch to their brands.

4.3.2.4 Use Occasion / Situation Segmentation

Buyers may also be distinguished according to occasions when they develop a need, purchase a product or use a product. Occasion or situation segmentation, as it has become known, divides the market by groups of

consumers within usage situations. Belk (1974 p 156-163) states that consumers often select products on the basis of the usage situations they expect to encounter. Occasion/situation segmentation may even help a firm expand product usage. There is evidence that several marketing efforts in recent years encourage people to use products/services for different occasions (Dickson, 1982 p 57-61).

An outcome of the above approach is a relatively new technique known as person-situation segmentation (Dickson, 1982 p 57-61). In this instance, markets can be divided on the basis of the usage situation in conjunction with individual differences of consumers. In part of the literature it is treated as a 'sub-set' of benefit segmentation as the theory proposes that consumers will desire different sets of benefits depending on the situation at the time.

In summary, the basis for segmentation may be objective and general such as demographic and geographic variables, or situation specific such as behavioral and psychographic variables. All of these variables have been used, at varying points in time, as basis for or descriptors of market segments. The next sub-section will deal with the important issue of **SELECTING** the most **useful** basis variable (s) on which to segment the market.

4.4 Selection of Basis Segmentation Variable(s) for Segmentation Process

The selection of the most appropriate variable(s) on which to segment the market is a crucial one.

Yankelovich comments as follows:

'Once you have discovered the most useful way(s) of segmenting a market you have produced the beginnings of a sound marketing strategy.'
(Yankelovich, 1964 p 83).

As the author has illustrated, there are a great variety of variables available to

marketers for the purpose of market segmentation.

A review of the literature reveals that over the years almost ALL of the variables suggested in the consumer behaviour literature have, at some point in time, been used as the bases for segments (Frank et al, 1972 p 26-89), some with more success than others (Wind, 1978 p 320).

The researcher, in adopting a market segmentation study, has to decide which variable(s) to select as the BASIS variable(s).

4.4.1 Is There a Single Best Approach to Selecting Market Segmentation Basis Variable(s)?

The literature reveals that there is NO ideal basis variable on which to segment the market that suits all marketing problems and situations.

Yoram Wind (1978 p 319) states that in contrast to the bulk of the published theory on segmentation that implies there is a single best way of segmenting a market, 'the Range and Variety of marketing decisions suggest that any attempt to use a single basis for segmentation for all marketing decisions may result in incorrect marketing decisions as well as a waste of resources.' Yankelovich reinforces this standpoint, 'Above all, we must never assume in advance that we know the best way of looking at a market. This is the cardinal rule of segmentation analysis. All ways of segmenting markets must be considered, and then we must select out of the various methods available the ones that have the most important implications for action.' (Yankelovich, 1964 p 89).

A thorough review of the recent literature on segmentation reveals that there is consensus in this approach today. That is : In selecting the most useful basis variable(s) for the segmentation model each case must be viewed as a unique and potentially different situation (Baumwoll, 1975 p 3-20).

Young et al (1978, p 411) summarizes as follows:

'NO single approach can be used to segment all markets as the specific competitive structure and environment determine the appropriate approach. Thus, the marketing researcher must analyze the market carefully to ensure that only approaches relevant from a marketing standpoint are considered.'

4.4.2 Factors Impacting on the Selection of Market Segmentation Variables

The literature suggests that there are two major considerations to take into account : (Wind, 1978 p 319)

1) Management Specific Needs

'Managements' needs are an obvious but somewhat neglected consideration. Conceptually, the bases for segmentation would vary depending on the specific decisions facing management.' (Wind, 1978 p 319). For example, Wind suggests that if advertising decisions are the major problem, then benefits sought/media usage/psychographics plus lifestyles and product/usage patterns should be explored. In contrast, if pricing decisions need to be made he suggests price sensitivity, deal proness, price sensitivity by purchase/usage patterns be explored.

2) The current state of the marketing and consumer behaviour knowledge about the relevance of various variables as bases for and descriptors of market segment.

This includes the analysis of the affect plus cognitions, behaviours and environment thought to be involved in the purchase/consumption process for the particular product under study (Peter and Ohlson, 1990 p 39).

The selection of a basis variable for the segmentation of a market is therefore said to be situation specific (Cravens, 1991 p 186).

The selection of the BASIS variable for this study will be addressed in Section 6 of this Chapter. First, however, the author will address approaches to forming segments.

Section 3 of this Chapter revealed that the first step in implementing market segmentation strategy was to identify the basis variable(s) and FORM the segments. The author has addressed the selection of the basis variables in Section 4. Closely related to this decision is the approach to forming the market segments - the subject of the next section.

5. FORMING MARKET SEGMENTS

Wind (1978 p 317) suggests that there are two broad approaches to forming market segments:

5.1 The A-Priori Approach

In an 'a-Priori' segmentation approach management decides on a basis for segmentation in advance - such as product purchase, loyalty, customer type or other factor. The survey results show the segments' estimated size and their demographic, socio-economic, psychographic and other relevant characteristics.

5.2 The Post-Hoc Approach

In the post-hoc segmentation approach, the base for segmentation is not decided in advance but, rather, in an outcome of the analysis itself. Segments are determined on the basis of a clustering of respondents on a set of 'relevant variables'. There are a wide array of multivariate statistical techniques that can be used for this purpose (Punj et al, 1983 p 134-148). Once segments are isolated the size, demographic and psychographic profiles and buyer behaviour are determined for each.

5.3 Limitations of Each Approach

The a-priori approach has been the more usually adopted method of segment formation. 'Market segmentation has traditionally focused on forming groups and then determining the profiles of each group. Furthermore, these groups are determined a-priori by using management judgement. The choice of the appropriate bases is somewhat conditioned by management's prior beliefs about the product class.' (Dalrymple and Parsons, 1986 p 242).

The literature does reveal, however, that the a-priori approach could have a serious potential limitation. Namely, that the marketer needs to have sufficient information in advance as to:

- 1) the relevance of all the alternate variables that may impact on the

- consumer behaviour under study;
- 2) the specific variable(s) thought to be most appropriate for the basis variable depending on the problem facing management.

If marketers do not have sufficient information in advance to select the most useful segmentation basis variable this could place serious limitations on the results of an a-priori segmentation study.

Loudon et al comment as follows:

'Unless one is fortunate enough to begin the process by correctly identifying the most useful basis for segmentation, a less than optimum segmentation of the market is likely to occur.' (Loudon et al, 1988 p 86).

The post-hoc approach presents an alternative which addresses this potential limitation of the a-priori method. Dhalla and Mahatoo (1976 p 35-36) state that 'In view of the lacklustre performance of these 'a-priori' classifications, many researchers have turned to natural groupings by letting the figures speak for themselves.' It is hypothesized that in adopting a post-hoc approach to forming segments, marketers draw more extensively from buyer behaviour information than the predetermined a-priori technique.

Although the post-hoc approach appears to offer management a useful framework for the formation of segments, in many instances, the results obtained are often questioned on the grounds of reliability, validity and usefulness (Punj et al, 1983 p 134-148).

This is thought to be due to some of the following factors:

- 1) Use of powerful statistical techniques (eg. Cluster, Q factor analysis) that have the power to group any set of variables even if no 'natural' groupings exist in the market.
- 2) Lack of discipline by market researchers with respect to the definition and operationalisation of certain variables (eg.

psychographics).

- 3) Lack of discipline by market researchers with regards to the selection of input variables hypothesized to be relevant to the problem under study.
- 4) Few attempts to verify segments reliability and validity.
- 5) Difficulty with defining segment 'cut-off'/size. They are often referred to as 'Fuzzy Constructs'.

In many segmentation studies based on the post-hoc approach, dissatisfaction is expressed by management as to the results. It appears that in too many instances marketers assume that meaningful, clearcut and insightful segments will just magically pop out of the mass of statistical out-put generated but this is often not the case (Tauber, 1983 p 7; Haley, 1984 p 24).

5.4 Alternative Approaches

The literature does reveal that the post-hoc approach may also be combined with some a-priori bases (Wind, 1978 p 322).

For example, the sample first can be divided into brand users and non-users and then respondents in each a-priori segment can be clustered according to some other basis for segmentation such as needs/benefits.

In addition, there are a few newer hybrid segmentation methods that have been tried by some researchers (for example:- flexible segmentation (Robinson et al, 1977 p 50-57) and componential segmentation (Green et al , 1977 p 9-18)).

Although these newer segmentation methods have been tried by some researchers, the two main types discussed above remain the most widely practised approaches today (Wind, 1978 p 322-323).

5.5 Selection of Segment Formation Approach

The author detailed in the previous section that no one single variable was appropriate for all segmentation studies. Furthermore, the selection of variables

6. Selection of Segmentation Approach and Basis Variable for the Study

In this section the author will outline the specific segmentation approach and selection of the basis variable for this study.

In Sections 4 and 5, the author highlighted that there was no single 'ideal' basis variable that was applicable for all market segmentation studies.

Furthermore, the selection of the most suitable approach (a-priori or post-hoc) and the selection of the BASIS variable for a segmentation study depended to a large extent on managements' specific needs and knowledge surrounding the behaviour and/or product category under study.

The author revealed in Chapter 2 that Tongaat Mushroom's marketing objective is to stimulate the growth of the fresh mushroom market. In order to achieve this objective, Tongaat Mushrooms plan to implement a market segmentation study amongst the current users of fresh mushrooms in order to gain a clearer understanding of who the current users of fresh mushrooms are and how these customers differ in the purchase and consumption behaviour with respect to fresh mushrooms.

In deciding on a market segmentation strategy, Tongaat Mushrooms have assumed that certain groups of people buy more of the product - fresh mushrooms, than do other groups. It is assumed, therefore, that the market for fresh mushrooms is made up of customers who differ in such a way that some aspect of their demand for fresh mushrooms also differs. In implementing the market segmentation strategy, Tongaat Mushrooms would need to tailor the firms marketing mix to take advantage of these differences.

Based on the specific needs of Tongaat Management, it was decided to adopt the a-priori approach to the segmentation study. It was therefore decided in advance to segment the mushroom market on **the basis of volume of use**.

The objective was to identify two groups of consumers namely a group of heavy users and light users and to profile them on their distinguishing characteristics. This requires the use of descriptor variables (to be addressed by the author in Section 7).

Based on this profiling, the objective is to identify opportunities to increase consumption amongst light users. In this context, Tongaat Mushrooms specifically wanted to evaluate the appropriateness of their current 'marketing' strategy.

In summary, based on Tongaat Mushrooms' management needs it has been decided in advance to segment the current users of fresh mushrooms on the basis of volume of use. The objective is to form two segments - a heavy user group and light user group and then to distinguish these buyers using descriptor variables. Section 7 will discuss in detail the special role of these descriptors variables in the segmentation process.

7. Developing the Customer Segment Profiles

After the market segments have been formed, each segment must then be profiled in some detail. This is Step 2 in the market segmentation process (Refer Figure 3.2 Section 3)

7.1 Purpose of Descriptor Variables

The profiling objective is to identify descriptive characteristics that are highly correlated to the segmentation basis variables.

Descriptor variables play an important role in achieving this objective. The descriptor variables facilitate the development and implementation of marketing strategy aimed at allocating marketing resources to take advantage of the segment(s) uncovered in the first step of the segmentation process. (Frank et al, 1972 p 19)

Important descriptor variables for this purpose can be identified through a number of statistical techniques. Multivariate analysis, however, are most often used to identify the significant distinguishing descriptive characteristics.

7.2 Defining Descriptor Variables

Based on the above discussion, descriptor variables are defined as follows: 'Those variables that can be related to both the criterion (basis) variable in the segmentation problem (Eg. volume of use) and to the performance characteristic of the various marketing tool (mix) variables but that is NOT otherwise a factor in the segmentation decision (Frank et al, 1972 p 17).

7.3 Selecting Descriptor Variables

The selection of the basis variable for segmentation can be drawn from management needs. The selection of the descriptor variables is, however, a little more complex. This complexity is said to stem from three factors:

- 1) Large number of possible variables that could be included.

- 2) The often questionable link between the selected basis for segmentation and the segment descriptors.

Those segments uncovered in a segmentation scheme with varying elasticities to marketing variables may NOT be able to be identified in terms of the segment descriptors (eg. demographics, personality etc).

The converse is, however, also true. Those segments defined and described in terms of general descriptor variables (eg. demographics) tend to be identifiable but may not have varying elasticities to marketing variables.

- 3) The question of actionability

This relates to managements ability to use information (provided by the distinguishing descriptor variables) as input to the design of the firms marketing strategy.

(Wind, 1978 p 320).

The selection of segment descriptors is clearly, therefore, not a straightforward process.

7.4 The Role of Segment Descriptors in Relation to this Thesis

The contribution of psychographic measures in their role as descriptor variables is specifically what is to be addressed in this thesis. The author wishes to establish the contribution that psychographic variables can make (if any) to the identification and profiling of the markets segments based on volume of use.

SUMMARY

In Chapter 3 the author has outlined the theory surrounding the implementation of a market segmentation strategy.

The emergence of the consumer orientated marketing concept and the fact that market segmentation is one of the major ways of operationalizing this concept has led to widespread acceptance of market segmentation strategies.

The author has attempted to highlight that a company in implementing a market segmentation strategy seeks to obtain a competitive advantage by satisfying the requirements of its customers more efficiently and effectively than the competitor.

Footnote summarizes this philosophy as follows:

'The very incentive for exploring market segmentation is to gain advantage - to seek some basis for customer preference - against the array of competitors and their offerings ... [The marketer] must seek to identify those offerings which most appeal to some desirable segment of the total market.' (Footnote, 1969 p 129-139)

In order to be of benefit to a company, however, market segments must satisfy minimum criteria.

The implementation of a segmentation strategy involves three separate stages:

- 1) Market Segmentation Process
- 2) Market Targeting
- 3) Marketing Positioning

The focus on this thesis is on the first stage - namely the segmentation process. This stage includes 2 steps -

- 1) The selecting of the BASIS and DESCRIPTOR Variables and the FORMING of the segments;
- 2) The PROFILING of the segments.

Based on the marketing objectives facing the company - Tongaat Mushrooms - the a-priori

approach to market segmentation has been selected for this study and the market for fresh mushrooms (current users) will be segmented on the basis of volume of use. (A Behavioural Variable - Refer figure 3.3).

In the second step, the descriptor variables play an important role in the profiling of the segments on distinguishing characteristics. 4 Sets of variables geographic, demographic, behavioural and psychographic classified according to figure 3.3 will be included in the study as potential descriptor variables. The literature reveals the descriptor variables should not only identify the resultant segments but should also aid in the development of marketing strategies as a result of the segmentation analyses.

Boote, 1981 p 29-30 comments as follows:

'Market segmentation is not simply identifying groups within the market as being better or worse prospects for a particular product or service. The research should be able to guide marketing decisions concerned with strategy execution.' (Boote, 1981 p 30).

It is in this specific area that the contribution of psychographic variables will be critically evaluated.

The next three chapters of this thesis will focus exclusively on psychographics. Chapter 4 will overview the origination and definition of psychographics. Chapter 5 will reveal the uses of psychographics with regards to market segmentation. Finally, in Chapter 6, the author will address problems and criticisms typically associated with undertaking psychographic research.

1. The Need for Psychographics

Over the past two decades 'psychographics' has received widespread attention in the marketing literature.

Such prominence developed from the recognition that important demographic distinctions often simply did not exist in many product categories. Furthermore, even when they did, one could not intelligently decide how to attract any particular market segment unless one knew why the distinctions existed. Boote comments as follows - 'Interest in psychographics stemmed from the fact that consumers who shared common demographic characteristics may still have differed in their purchasing behaviour' (Boote, 1980 p 114).

1.1 Traditional Demographics

Traditionally marketers had used demographic data to develop market segmentation strategies and predict behaviour of individuals. There was, however, much disillusionment as to demographics' ability to define and describe segments and much less to predict consumer product or brand behaviour. (Yankelovich, 1964, p 83-90). In 1969 Barnett commented as follows 'Demographic analysis may be helpful for identifying market potential but it appears too insensitive for predicting specific brand choice' (Barnett, 1969).

Wells, although recognizing the above limitations, was more concerned with demographics' poor descriptive ability - 'Demographics have been and continue to be extremely useful, but they are unsatisfying. They lack colour. They lack texture. They lack dimensionality. They need to be supplemented by something that puts flesh on bare statistical bones.' (Wells et al, 1968).

Clearly what was needed was to expand the traditional demographic measures into a more complete consumer profile.

1.2 Psychographics versus Demographics

With the birth of psychographics some marketers argued that psychographics had replaced the need for demographics in a segmentation study.

In the authors opinion, this is, however, certainly not the case. It appears rather that marketers became dissatisfied with demographics as a means of predicting consumer behaviour so they sought other ways of defining and describing the target population (Boote, 1980 p 115).

Psychographics is therefore frequently used together with demographics because of the rich descriptive detail they have provided researchers with for developing marketing strategies. (Lesser 1986 p 18-27) (Reynolds et al 1974, p 77) (Roscoe et al 1977 p 70-71)

Ziff (1971 p 3) concludes as follows: 'In effect it has been understood that to attract or motivate a particular group of consumers it is necessary to know how they think and what their values and attitudes are as well as who they are in terms of their traditional demographic variables of age, sex, income, etc.'

2. Origination of the Lifestyle Concept

The concept of lifestyle patterns and its relationship to marketing was introduced in the early sixties by William Lazer. He defined lifestyle patterns as : 'A Systems Concept -It refers to a distinctive mode of living in its aggregate and broadest sense... It embodies the patterns that develop and emerge from the dynamics of living in a society' (Lazer, 1962 p 140-151).

In general, lifestyle reflects people choosing activities that represent the ways they wish to live.

Marketers believed that different consumer's lifestyles should lead to differences in peoples consumption behaviours.

Marketers therefore set out to measure consumer lifestyles primarily using a battery of Activity, Interest and Opinion questions (Wells et al, 1971 p 27-35).

At the same time that lifestyle research was developing in marketing, there was still a concern that 'pure' lifestyle research (even together with 'pure' demographics) would not capture what was going on in consumers minds.

Marketers therefore also strongly desired to have more psychological information available.

Until that time two types of psychological information had been

available: Personality Research

 Motivation Research

4. Motivation Research

Motivation research was a technique much sought after in the 1950's. Pioneered by a psychologist named Ernest Dichter, motivation researchers believed that there were strong influences on consumers to purchase a product/brand that they were not even aware of.

Wells comments as follows: ' Armed with projective techniques from clinical psychology and some existing notions from psychoanalysis, motivation research practitioners penetrated deeply into the consumers psyche, revealing for the first time to their astounded clients the 'real' reasons people buy their products' (Wells, 1971 p 162).

Motivation research was, however, strongly criticized on the following grounds:

- 1) Motivation research suffered from poor methodology and relatively small samples were used to generate broad conclusions.
- 2) Data analysis was subject to poor methodology and poor computer technology.
- 3) Conclusions were not found useful for developing sound marketing programs.

(Harrell, 1986 p 37)

Conventional researchers therefore insisted that motivation research was unreliable, invalid, unobjective, too expensive and liable to be misleading.

The motivation researchers replied that conventional research was sterile, dull, shallow, rigid and superficial.

Disillusioned with what motivation research was accomplishing, a number of researchers came to believe that much larger samples were needed; they also developed the idea that researchers should look for direct correlations (eg. between attitudes and product preferences) rather than strive for insights about the unconscious.

5 Origination of Psychographics

The field of psychographics is said to have originated from a merger of the areas of personality assessment and motivation research (Mehrotra et al 1977 p 49-65).

The merger yielded potential benefits overcoming the limitations of personality inventories and motivation research:

- 1) Psychographics promises to be less abstract and more directly related to consumer situations than standardized personality tests, and
- 2) Psychographic tests allow more efficient and apparently objective measurement of consumers desires than do the long interview methods of motivation research. Also psychographics yields quantitative results (usually large sample sizes are employed) which can easily be submitted to statistical analysis.

(Loudon et al 1988 p 487).

Schiffman and Kanuk comment as follows 'It is the blending of the desirable characteristics of both motivation research and personality tests that gives psychographic measurement its distinctive appeal as a consumer behaviour research tool'. (Schiffman et al, 1987 p 143).

6. Lifestyle Versus Psychographics

Referring to Section 2-5, the literature reveals that the backgrounds of lifestyle and psychographics are quite distinct.

Wells, (1974 p 319-320) suggests that up until the 70's the terms were used separately. Specifically the term psychographics was used to refer to studies that placed greater emphasis on generalized psychological and personality traits. On the other hand the term lifestyle focused more on broad cultural trends (Anderson, 1967 p 55-62; Lazer, 1963 p 130-139; Adler 1970 p 19-30) and on needs and values that were thought to be closely associated with consumer behaviour (Bernay 1971, p 189-195; Burger et al 1972 p 219-222; King et al, 1971 p 26-32; Myers et al, 1974 p 243-266; Plummer, 1971 p 38-41; Tigert 1974 p 181-212).

This distinction appears, however, to have been lost on most consumer analysts. The terms over the last two decades have been and are continuously used interchangeably (Anderson et al 1984, p 405-411). Even Wells in his review of the subject in 1975 makes no attempt to distinguish between the terms (Wells 1975, p 227).

Furthermore, there is evidence in the literature of overlap in what the terms are thought to mean.

The end result is that during the past 20 years marketers have come to view psychographics and lifestyle research as so intertwined that it is hard to separate the two.

Weinstein comments as follows:

'Today there is great controversy among both marketing practitioners and academics as to what constitutes psychographics and whether or not it is synonymous with lifestyle research.' (Weinstein 1987 p 109).

In the authors opinion there appear to be three different schools of thought on this matter:

- 1) The first school of thought views psychographics as complimentary to lifestyle. The majority define psychographics as a measure of lifestyle. (Hawkins et al 1992 p 326) (Reynolds et al 1974 p 73-84) (Loudon et al, 1988 p 118; Harrell, 1986 p 280-282). Specifically psychographics are viewed as: 'The systematic operationalization of lifestyles.' (Reynolds et al 1974) 'The quantitative measures of lifestyles.' (Hawkins 1992 p 326); 'The method of defining lifestyle in measurable terms.' (Loudon et al 1988 p 118).
- 2) The second school of thought view the terms lifestyle and psychographics as equivalent. They assume that they both measure the same thing. (Schiffman et al 1991 p 123; Engel 1990 p 670) 'Psychographics is alternatively known as lifestyle' (Schiffman et al, 1991 p 123).
- 3) The third school of thought separates lifestyles from psychographics (Anderson 1984 p 405-416; Wells 1974 p 319-320; Dorny 1971 p 200-201; Demby 1974 p 11-18; Williams 1982 p 106; Demby 1989 p 21).

Dorny summarizes their view points as follows:

'The terms psychographics should be reserved for measures that are truly 'mental' - attitudes, beliefs, opinions, personality traits etc. The analysis and classification of activity or behavioural reports from the consumers which are frequently classified as 'psychographics' should be given their own distinct term, such as lifestyle'(Dorny, 1971 p 200-201).

7. The Need for Consensus

The persistent confusion and lack of operational precision of lifestyle and/or psychographics has not only hampered research in this field but has also undermined its usefulness as a segmentation variable.

Critics have stated that unless it is addressed it is likely to hamper future prospects for this type of research.

King comments as follows:

'Psychographics may lose its research charisma despite its conceptual validity and empirical reliability unless a commonly accepted construction is achieved by the marketing community.' (King 1971, p 228-231).

What is clearly needed by the marketing community is to have a clear definition of psychographics on which most researchers could agree, and to clearly state its relationship with lifestyle research.

8. Factors Impeding Achieving Consensus

In a review of the literature the author identified three problems that appear to be hampering an effective 'universally accepted' working definition of psychographics:

- 1) Confusion and interchangeability of use of the terms lifestyle and psychographics.
- 2) Numerous different definitions in the literature given to these two terms.
- 3) Numerous different approaches to the operationalization of psychographics and/or lifestyle research.

These will be individually addressed in the following three sub-sections (8.1 - 8.3).

8.1 Problem 1

Problem (1) has been addressed by the author in section 6. It is this confusion and interchangeability of use of the terms psychographics and lifestyles that also results in problems 2 and 3.

8.2 (Problem 2) Different Definitions

There are numerous different conceptual definitions of psychographics offered by market researchers. The following are just some of the examples cited in the literature:

'.... Measures of an individual's level of expectation, a means for marketers to learn how to address the individual consumer as an individual through the medium of mass communications.' (Demby 1971, p 196-201).

'... a quantitative definition of the market based upon a systematically developed list of attitudes related to lifestyle and product benefits, constructed in such a way as to maximize product usage differential, against which advertising, marketing, and product decisions can be made...' (Heller as quoted in Hustad and Pessemier, 1971 p 84-85).

'... in its broadest sense, psychographics refers to any form of measurement of analysis of the consumer's mind which pin-points how one thinks, feels and reacts' (Nelson, 1971 p 181-188).

'...research that focuses on consumers' activities, interests, prejudices, and opinions. Variously called 'psychographic' research, 'life style' research and even (incorrectly) 'attitude' research, it resembles motivation research in that a major aim is to draw recognizably human portraits of consumers. But it also resembles the tougher-minded more conventional research in that it is amenable to quantification and respectable samples.' (Wells et al 1971 p 27-35).

The literature therefore reveals that the term psychographics has been used with varying definition since its entry into research jargon (Anderson et al, 1984; Ziff, 1974; Wilkie, 1990).

Simmons comments as follows 'My first and foremost impression about psychographics is that there is no general agreement to just exactly what it is'(Simmons 1971).

8.3 (Problem 3) Different Constructions of the Term Psychographics

Stemming from the confusion surrounding the definition of lifestyle and/or psychographics analysts persistently operationalized these concepts to fit their own research purposes. These operational measures ranged from generalized personality traits and Activity, Interest and Opinion inventories to measures specifically relating to the product or activity under study. In a published article by Anderson et al, reference is made to 16 different constructions of the terms lifestyle and psychographics in 80 studies conducted from 1969-1980. (Anderson et al 1984).

Such a haphazard approach to the development of operational measures for psychographics has obviously severe implications for the usefulness of psychographics as a segmentation variable.

Felson, 1975 p 37, comments as follows:

'Lifestyle cannot help one to understand consumer behaviour if lifestyle variables are a disorderly, nongeneral, nonhierarchical, or a theoretical set of vaguely related traits whose casual relationships to each other and to anything else are unspecified. Much lifestyle research could better be termed 'idiosyncrasy research' since it uses the computer to group people with similar idiosyncrasies.'

This is no doubt that problems two and three to a certain extent stem from the confusion and interchangeability of use of the terms lifestyle and psychographics. In order to address the above issues and develop a conceptual definition of psychographics (at least for this thesis) it was first necessary for the author to distinguish between the terms lifestyle and psychographics.

9. Differentiating Psychographics from Lifestyle Research

It is clear that when the term psychographics was first introduced it was intended to provide profiles of consumers psychological processes (Wells, 1974; Demby, 1974).

Specifically the term was 'described' as follows :

Psychographics = Psycho(mental) and graphic (picture).
'Mental pictures of consumers'.
(Haley 1984 p 20; Wilkie, 1990 p 112-113)

Lifestyle research in contrast was intended to focus on consumers characteristic patterns of overt behaviour. (Wells, 1974)

Based on the above distinctions and on Anderson's critical review of lifestyle and psychographics (Anderson 1984, p 405-411) it is the authors opinion that the domain of psychographic research should be defined in terms of cognitive style i.e. Psychological processes (psychological processes or properties would include values, attitudes, beliefs, opinions and interests) that may be systematically linked to characteristic patterns of overt behaviour.

Conversely the logical focus of lifestyle research may be described as the identification of characteristic patterns of overt behaviour that may or may not be systematically limited to cognitive style (Anderson et al 1984).

Implicit in the above 'definitional' distinctions is the realization that while psychographics and lifestyle are separate issues the domain of each are logically complementary(Dorny, 1971 p 200-201; Loudon et al 1979 p 98; Anderson, 1984 p 408-409).

The author accepts that this is clearly but one of a number of possible perspectives

on the potential differentiation of lifestyle and psychographics.

But as Anderson writes 'No approach is sacrosanct, yet some distinction in terms would allow for more productive advancement in psychographic research and equally important in psychographic segmentation' (Anderson, 1984 p 409).

Even more importantly the proposed distinction should at least lead to greater definitional consensus and operational clarity, the subject matter of the next two sections respectively.

10. A Proposed Definition

The author in the previous section attempted to distinguish lifestyles from psychographics and furthermore concluded that the domain of psychographics should be limited to the profiling of consumers psychological processes. Any definition adopted should therefore be in line with these conclusions.

Demby, generally credited with inventing the term psychographics, intended psychographics to be used in a broad sense (Haley, 1984 p 20) He proposed a three level definition as follows: (Demby, 1974 p 13)

1. Generally, psychographics may be viewed as the practical application of the behavioural and social sciences to marketing research;
2. More specifically, psychographics is a quantitative research procedure that is indicated when demographic, socioeconomic and user/non-user analyses are not sufficient to explain and predict consumer behaviour;
3. Most specifically, psychographics seeks to describe the human characteristics of consumers that may have bearing on their response to products, packaging, advertising and public relations efforts. Such variables may span a spectrum from self-concept and life style to attitudes, interests and opinions, as well as perceptions of product attributes.

The author has chosen to adopt this definition for this thesis.

Wells supports this approach and in his comprehensive review of the subject defines psychographics as 'Quantitative research intended to place consumers on psychological as distinguished from demographic dimensions'. (Wells, 1975 p 196-213).

The rationale for adopting this definition is reinforced by five more recent research studies which have all defined psychographics in this broad sense. (Burnett, 1981; Aggarwal, 1990; Boote, 1984; Jackson et al, 1985; Lesser et al, 1986; Haley, 1984).

Each of these studies has contributed positively to the field of psychographic research. Each have illustrated that by adopting such a definition it enhances the contribution that psychographics can make.

11. Operationalizing Psychographics

As would be expected, the numerous different definitions of psychographics adopted by the marketers and the interchangeability of use of the terms lifestyle and psychographics has resulted in various approaches to their measurement.

This raises the question - What type of constructs should be used to measure psychographics?

Initially by far the most common approach to measuring psychographics was the use of an Activity, Interest and Opinion inventory (Wells, et al, 1971 p 27-35) (Plummer, 1972 p 79-89) (Plummer, 1971 p 35-42) (Pessemier et al, 1966 p 332-347) (Tigert, 1973 p 223-227) (Wells, 1968 p 124-126).

This inventory consisted of a large number of statements (typically 300 or more). It was administered to a large sample of consumers who were asked to express their level of agreement with each of the statements. Activities were concerned with how people spent their time in work and leisure; Interests were concerned with the importance people placed on their immediate surroundings; Opinions were concerned with peoples stance on social issues, institutions and themselves (Wells and Tigert, 1971 p 27-35). Refer Table 4.1 for a list of what was included in each major dimension.

special problems that items in the category might solve and his more general attitudes towards brands within the product class(Haley, 1968 p 30-35).

The lack of general consensus as to which of these approaches was the best way of measuring psychographics resulted in marketers typically adopting a combination of the measures as best suited their research purposes (Anderson, 1984 p 407).

There is evidence to suggest that this trend has continued through seventies and eighties into the nineties. The author reviewed 9 studies that all claimed to include psychographic measures. (Refer Table 4.2) Nearly all have attempted to operationalize psychographics with different measures.

The literature further reveals that while these may all appear at face value to be different measures many of them actually attempt to measure the same thing. The converse, however, also applies. While some are 'termed' the same, in practise they are defined and measured differently.

What is clearly needed is the development of a conceptual framework to guide the selection of measures as measures of psychographics.

A few such models have been provided in the literature (Wind & Green, 1974; Ziff, 1974; Boote, 1980; Pernica, 1974; Roberts, 1979).

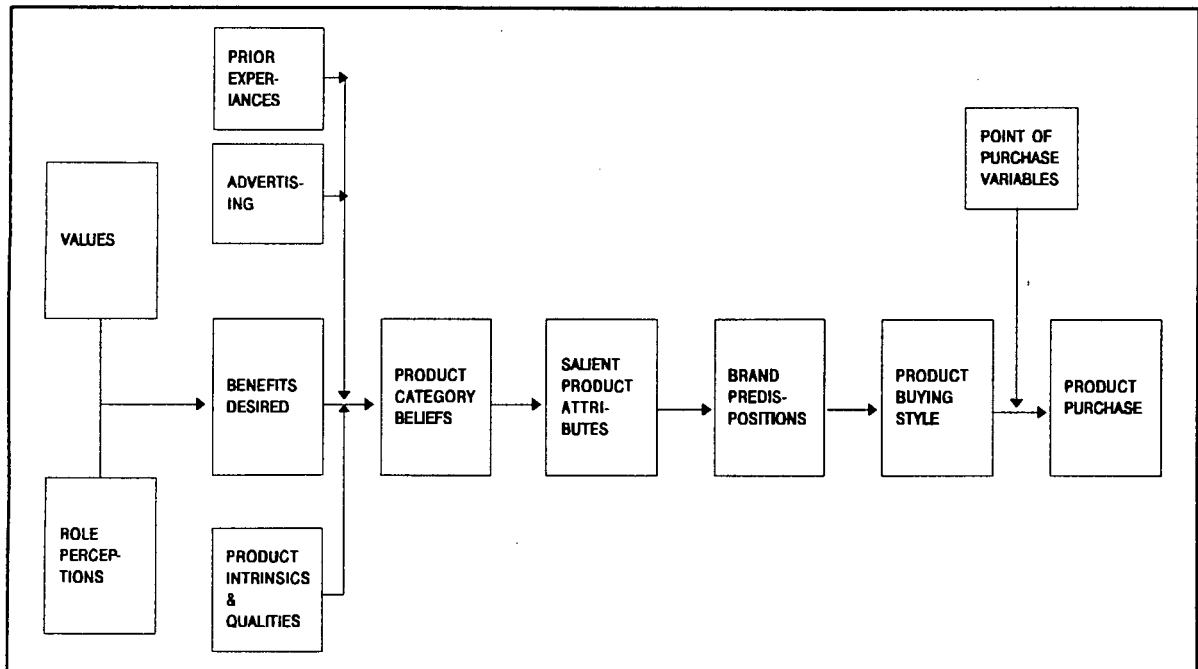
The literature however provides one with little understanding of the theoretical 'underpinnings' of these models nor with much empirical evidence for making a choice between them.

The author therefore has drawn on these various approaches and formulated a hypothetical model specifically for this study (Refer Figure 4.1).

The purpose of the model is to guide the selection of measures thought to be pertinent and necessary to include as psychographic measures and therefore hypothesized as having an impact on the product choice under investigation.

The author will provide further motivation for the need to employ a model to guide the selection of psychographic measures in Chapter 6. In this Chapter the author will focus on describing the model and the rationale for the selection of the psychographic measures.

Figure 4.1 Hypothetical Model of the Hierarchy of Effects on Product Purchase Behaviour



Referring to figure 4.1, the model indicates that the benefits desired in a product will be a function of a persons values and role perceptions.

These benefits will, along with past experience, generic product intrinsics and advertising determine consumers perceptions of the product category. These in turn influence salient product attributes preferred which ultimately determined brand predispositions. Subject to the consumers buying style (specific to the category) and the point of purchase variables, this will affect the actual product/brand purchased.

Consistent with this model, it is the author's opinion that all six constructs identified as having an impact on the final product choice should therefore be included as measures of psychographics. Specifically these are:

- 1) Values
- 2) Role Perceptions
- 3) Benefits Desired
- 4) Category Beliefs and Perceptions
- 5) Salient Product Attribute Preferences and Brand Predispositions

6) Product Buying Style

What is now required is a clear definition of what each of these measures is and what each proposes to measure. This will be detailed in Section 14.

However, before attempting to define each of these measures, two important related issues must be addressed:

Firstly, the degree of specificity of each of these measures must be decided upon.

Secondly, the sources of the psychographic variables to include 'within' each measure must be detailed.

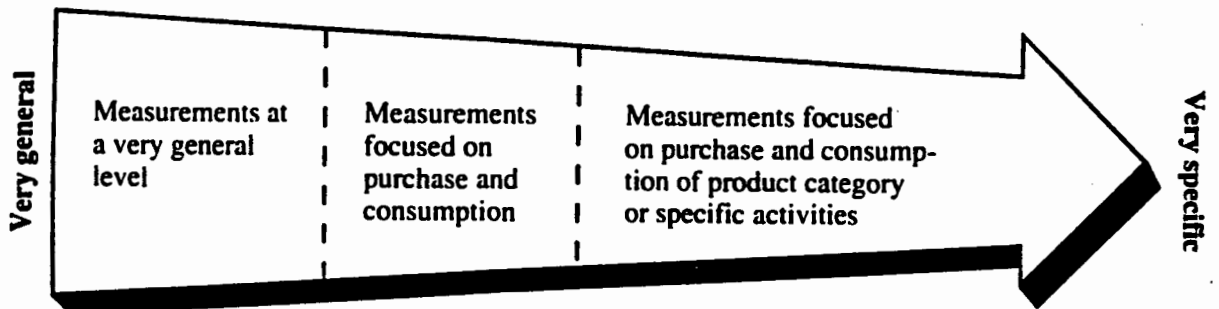
These two issues will be respectively dealt with in Sections 12 & 13.

12. General versus Specific Measures

The literature reveals that psychographic measures may refer to general behaviours, motivations, beliefs etc of individuals or they may be specific. The specific approach focuses on statements that are product specific and that identify perceptions and benefits associated with the product under investigation. (Engel, 1990 p 345) The question therefore arises - How closely related must the psychographic measures be to the particular marketing problem under study?

The question to be addressed deals with the generalized - specificity continuum (Refer Figure 4.2) that has been noted by Ziff, 1971 p 3-9; Hustad and Pessemier, 1974 p 42-53; Zins, 1976 p 508; Bushman, 1982 p 377-394 and Hawkins et al, 1992 p 328.

Figure 4.2. Psychographic Continuum for Psychographic Measurement



Source: Hawkins, Coney and Best. 'Consumer Behaviour'. 1992 p 328.

The generalized-specificity continuum refers to the degree to which the measures employed in a psychographic study approach product specific attributes. At one extreme are very general measurements dealing with general ways of living. At the other extreme, measurements are product or activity specific.

There is controversy as to the relative effectiveness of general vs specific measures (Reynolds et al, 1972 p 51; Hustad et al 1971; Reynolds et al 1974 p 88-92, Ziff, 1971 p 3-10.)

12.1 The 'Case' for General Measures

The early literature reveals that there were thought to be some advantages to employing generalized measures; namely that these measures are relatively less costly in the sense that they can be used as a standardized battery of measures repeatedly across a variety of contexts without re-development (Reynolds et al, 1974 p 88-90). Secondly, that greater flexibility is achieved with general measures in that a single 'psychographic instrument' could be used to gather information on a vast number of different products (Reynolds et al 1974 p 82-90).

The market researchers primary concern however is, or should be, the relevancy of the measures. Specifically to what degree do the general vs specific psychographic measures enhance understanding and prediction of the consumer behaviour problem under study?¹

12.2 The Case for Specific Measures

General personality traits have been included on many occasions as a measure of psychographics. The Edwards Personal Preference Schedule, the Gordon Personal Profile, the Californian Personality Inventory, MMPI and Cantelli's 16 -

¹ In examining the relevancy it is not the authors intention to address the question of reliability and validity in a measurement sense. - That will be covered in Chapter 6; rather in addressing this issue the author is concerned with the degree to which such measures contribute to the understanding and prediction of the consumer behaviour under study.

Personality Factor Inventory, among others have all been used to measure a consumer's personality in a marketing contest.

The results in all cases have been DISAPPOINTING (Kassarjian, 1971 p 409-418; Evans, 1959 p 340-369; Wells, 1966 p 187-189)

In addition, the literature reveals that other general approaches such as that of market orientated sociological measures (e.g. inner and outerdirectedness) (Woodside, 1968 p 31-35), self-actualization concepts (Hamm et al, 1969 p 470-472), cognitive needs and styles (Rich et al, 1968 p 41-49) have been INEFFECTIVE in predicting brand and product choice. In the majority of cases the groups have been far too broad to discriminate among users of different brands within a product category (Advertising Research Foundation, 1964).

In addition, evidence suggests that in certain circumstances, such segments may even turn out to be misleading. A personality trait or general 'Activity, Interest and Opinion' measure in its generalized form may not be related at all to the product under study. (Pernica, 1974 p 279-213)

In summary, the users of general psychographic measures have found that these measures suffer from three major shortcomings:

- 1) There is a large gap between the generalized measures and product/brand specific behaviour. Haley states that unless a great deal of care is taken in selecting relevānt psychographic measures - 'psychographic segmentation runs a sizable risk of producing segments that have little or NO marketing significance for the product or brand of interest'(Haley, 1985 p 12)

There is a great deal of empirical evidence (Ziff 1971 p 3-9; 74 p 127-166; Pernica, 1974 p 285-291; Roberts, 1979 p 28-39; Kinnear et al, 1976 p 422-425) that clearly indicates that the more product specific measures yielded relatively more insight than general

generalization process may subsume important nuances in attitudes and values (Ziff, 1974 p 142-143).

Realizing the futility and danger of adopting generalized measures ONLY marketing researchers have more recently turned to the use of relevant situation specific descriptions (Bernstein, 1978 p 80-84; Dhalla et al, 1976 p 34-41; Villiani, 1975; Boote, 1984 p 117).

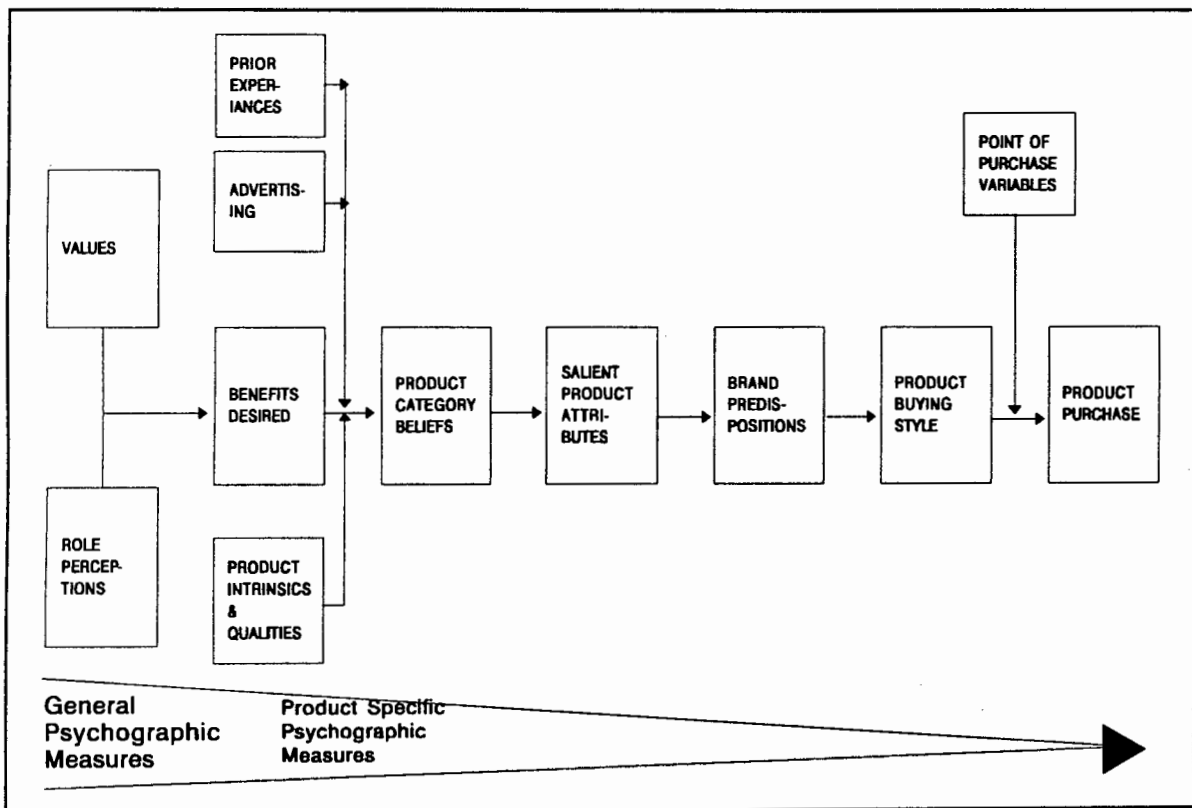
Dhalla and Mahatoo comment that psychographic measures that are developed for a segmentation study are only meaningful when they are situation specific and NOT of a generalized nature (1976 p 37).

Based on the overwhelming evidence as detailed above the author concludes that a psychographic study should include only those measures that are thought to surround the specific behaviour under study, for example: food purchase and preparation styles when studying a food product (Jackson, 1985 p 110-113). All measures to be included in this study will be therefore RELEVANT to the product category - fresh mushrooms and activities surrounding their purchase and use.

Figure 4.3 depicts the hypothetical model proposed by the author for this study. As noted by the author prior (in Section 11) it reflects the six psychographic measures to be included in this study and the interrelationships between these measures and the product under investigation. In addition, figure 4.3 also details the psychographic continuum (referred to by the author in figure 4.2) in relation to this study.

Relating the continuum to the model, it can be seen that the model employs generalized measures at one end (left hand side) and moves toward product specific measures at the other end (right hand side). As the author has noted, however, all measures to be included in this study are RELEVANT to the product category under investigation and any surrounding activities that impact upon its purchase and consumption. The general measures in this study (role perceptions and value

Figure 4.3 Hypothetical Model of the Hierarchy of Effects on Product Purchase Behaviour Highlighting the Generalised - Specificity Continuum of Psychographic Measures.



orientations) would therefore relate to general food selection and preparation (i.e. cooking) while the product specific measures (benefits, category perceptions, product attribute preferences and brand predispositions and product buying style) would relate directly to the category fresh mushrooms.

13. Source and Selection of Items for Psychographic Measures

The author up to this point has classified which measures are to be included as part of the psychographic analysis. In addition the relevance and degree of specificity associated with each measure has been detailed.

The next issue to be addressed in this section is that of the source and selection of the psychographic items for each measure.

How and from *Where* should the researcher generate and select the variables to include as psychographic measures?

The literature reveals that there are 3 main sources for psychographic variables.

- 1) The first source of items is the group session and depth interview. Specific items may be generated from the use of the above or hypothesized statements may be TESTED in this phase.
- 2) A second source of items is relevant internal and external secondary data available. Material from the sponsoring company and past research studies can provide useful insights in the construction of items related to the use of the product under study (Demby, 1974 p 21).
- 3) The third source of items is the researchers imagination. As Demby states ' One can go on a fishing expedition in generating variables, concerning certain extraneous activities which might have some direct or even apparently remote meaning'.
(Demby, 1974 p 20-22) (Wells and Tigert, 1971 p 168).

The author acknowledges that psychographic research has attracted some of its sharpest criticism in the area of sourcing and selecting items for measurement.

Pernica (1974, p 284) comments as follows:

'Selection of the various items seems to reflect little more than subjective

hunches. Their scope has not been defined and there is little evidence of a prior hypothesis as to which of the hundreds of possible variables should relate to consumers product preferences under study and why'.

The author, for this study, has developed a hypothetical model as a means to guide the selection of psychographic measures hypothesized to be relevant to the study (Figure 4.1). It is the authors intention, however, in this section to simply reveal the typical sources used to generate and select the items for psychographic measurement.

In Chapter 6 the author will debate critically the reliability and validity of this approach and comment further upon the benefit of utilizing a hypothetical model to guide the selection of psychographic measures.

14. Defining the Measures

This final section will deal with proposed definitions for each of the six psychographic measures as detailed by the author in Section 11, figure 4.1. The author would however like to note that in the literature little attention is paid to defining each measure and furthermore in many cases no definition is offered at all (Aggarwal et al, 1990 p 252; Anderson et al, 1984).

14.1 Value Orientations (Refer Figure 4.3)

14.1.1 Background

Personal values as a psychographic measure has gained in popularity over the last 10 years (Becker et al, 1981 p 37-43; Boote, 1980 p 114-119; Pitts et al, 1983 p 37-53; Boote, 1981, p 29-35).

The values concept became conspicuous in the marketing literature in the late 70's. Values were cited as the underlying variable responsible for explaining purchase behaviour through association with salient product attributes (Boote, 1981 p 29-35; Howard, 1977).

Further research concerned the influence of values on consumerism (Vinson 1977) and the influence of values on adopting a cross cultural advertising campaign (Boote, 1982 p 19-25). Research in social psychology investigated the fundamental relationship between values and attitude formation (Rokeach, 1968).

The evidence from all these studies suggests that values represent reasonably durable beliefs which guide attitude formation and ultimately behaviour (Boote, 1982 p 19-25).

14.1.2 Values vs Attitudes?

Values are viewed as more general than attitudes in that they guide the choices of modes of behaviour of individual's while attitudes are object

specific (Boote, 1981 p 30; Fishbein, 1967 p 389-400).

Moreover, it is suggested that values are more durable than attitudes because they are acquired over a longer period of the individual's socialization. They are likely to be thoroughly internalized by the time the individual reaches adulthood. An individual's value structure is therefore likely to change slowly, if at all. (Boote, 1981 p 30).

14.1.3 Proposed Definition

Literature evidence cited above suggests that values are critical to product, model and brand choice. A number of researchers (Boote, 1980 p 82-84; Dhalla, 1976 p 37; Haley, 1984 p 21) therefore conclude that personal values are a useful and necessary measure to include in a psychographic analysis.

Furthermore, it is suggested that the values that are to be represented by the individual item scales/statements should be of the INSTRUMENTAL kind - Specifically they should be instrumental to the formation of attitudes towards specific products, services or brands.² (Boote, 1982 p 20; Haley, 1984 p 21; Rokeach, 1968).

The term values for the purposes of this psychographic research will therefore be defined as follows:

'An Enduring belief that a particular mode of conduct or that a particular end state of existence is personally and socially preferable to alternative modes of conduct or end states of existence' (Rokeach, 1968 p 68-69, p 547-559).

It is the author's intention that, by adopting such a definition, measuring a consumers 'value system' would incorporate:

² For a detailed discussion on instrumental values refer to Rokeach, 1968).

- (1) his motivations - what drives him to behave as he does;
- (2) it would dictate to him what attitudes he should hold;
- (3) it would also provide the standards by which the consumer evaluates himself and by which his goals are chosen (Dhalla, 1976 p 37).

'Translating' the above into the context of the problem at hand, a consumer's value system with respect to a food product would seek to measure the following:

What motivates the consumer to purchase and prepare food as she does?

What attitudes guide and dictate her behaviour with respect to food selection and preparation?

What standards with respect to cooking does the consumer evaluate herself by?

Referring to Figure 4.3, a consumer's value system is hypothesized to impact on the consumer's purchase behaviour with respect to fresh mushrooms by influencing the type of benefits sought, perceptions of the product category and salient product attributes desired.

14.2 Role Perceptions (Refer Figure 4.3)

14.2.1 Background

The literature reveals that as psychographic studies began to focus on specific product categories so too did the measure of lifestyle begin to change in interpretation. (Demby, 1974 p 21).

General measures of lifestyle gave way to measures of 'overt' behaviour that were specific to the problem under investigation.

For example in studying food products, assessing food preparation, food purchasing and cooking styles now became a part of psychographic research.

14.2.2 Proposed Definition

Role perceptions are defined as the manner in which an individual behaves in order to give positive expression to the type of person he is or perceives himself to be (Dhalla et al, 1976 p 37).

Specifically, they are concerned with what 'kind' of individual a person is - that is how she sees herself to be. In relation to a food study - it is the role the respondent sees herself as portraying with respect to home cooking. For example, does she see herself as the Home provider versus Home avoider, Social Entertainer, Opinion Leader, etc?

Published 'food' studies (Dhalla et al 1976, Douglas 1975, Roberts 1979) which have included 'role perception' measures have proven conclusively that they do impact on general food shopping behaviour. Roberts(et al) comments are as follows:

'A carefully reasoned approach to the study of women's specific role choices seems much more likely to uncover the many facets of attitudes and behaviour in today's markets than does a simple analysis based on working vs non-working wives'(Roberts, 1979 p 29).

Roberts, 1979 (p 29) adds that based on their empirical findings there is a need from both a predictive and explanatory point of view to include home food preparation styles as a psychographic measure.

The author therefore hypothesizes that the role perceptions 'played out' by the respondents could explain a great deal about their purchasing activity in relation to food products/brands.

Based on the above definition and referring to figure 4.5, role perceptions together with a persons value orientation would therefore influence the type of benefits desired from the purchase and consumption of fresh mushrooms.

14.2.3 Value Orientations and Role Preferences - A Close Link

It is important to note that there is a close link between the two measures of value orientations and role preferences (Demby, 1974 p 24) (Refer Figure 4.3).

Value orientations attempts to measure what guides the housewife in making a product choice. It attempts to explain why the housewife chooses and prepares the foods in the manner that she does. For example - if it is her enduring belief that she should place greater emphasis on nutrition vs taste for family meals, she will select and prepare foods based on their nutritional content and concern herself far less with the end result from a taste point of view.

On the other hand role perceptions attempt to describe how the housewife sees herself with respect to home food purchase and preparation. For example - does she see herself as the 'social entertainer' who enjoys to entertain, frequently does so and therefore places great emphasis on food preparation for such occasions; or does she see herself as the home avoider with the less time spent preparing food the better?

In summary these two sets of variables attempt to describe **why** individuals behave as they do and **how** this behaviour is portrayed with respect to home cooking.

Douglas (1975) concludes that **both** role perceptions and value orientations are important to understanding food purchase behaviour.

Consumer's purchase behaviour will differ depending on the exact mix of benefits a marketer chooses to offer.

One may conclude in principal that to the extent that products/brands are PERCEIVED to be different on valued attributes and the attributes themselves are VALUED differently, perceived product benefits are a potentially valuable psychographic measure to include. (Haley, 1984 p 21; Green et al, 1972 p 31; Frank et al, 1972 p 82; Lesser et al, 1986 p 20; Ziff, 1974 p 140-141; Pernica, 1974, p 285-290; Wind, 1978 p 320; Haley et al, 1987 p 51-55; Greenberg et al, 1989 p 29-33; Wicks et al, 1989 p 64-71.)

14.3.3

Proposed Definition

In measuring consumer benefits the researcher attempts to measure what the consumer perceives as being the most sought after benefit to be gained from the purchase and consumption of the product under study (Haley, 1984 p 21).

By measuring perceived benefits, emphasis is placed on the nature of consumer demands for various features of the product under study (Eg. Health, Nutrition, Convenience, Versatility for fresh mushrooms).

14.4 Category Beliefs and Perceptions (Refer Figure 4.3)

14.4.1 Background

There are many ways of describing a product. A product may be described as the marketer sees it. A product may also be described as the marketer would like to see the product perceived. Thirdly, a product may be described as the consumer perceives it.

This third 'perception' is what is of importance in trying to measure consumers beliefs about the product category.

The literature reveals that the measurement of consumers beliefs with respect to the product category under investigation is often omitted from segmentation studies.

Both Haley, 1984 (p 21) and Pernica, 1974 (p 257) state that measures of category beliefs have not received the attention that they deserve and too frequently researchers have failed to include them in segmentation analyses.

This has often resulted in disappointing , inconclusive findings.

This situation exists despite the numerous empirical examples in the literature which testify to their importance and significant contribution. (Haley, 1984 p 22; Pernica, 1974 p 285-290; Ziff, 1974 p 141-142)

14.4.2 Proposed Definition

The term category beliefs refers to consumers PERCEPTIONS of TRUTH in the category of interest. (Haley, 1984 p 21).

By definition they are product specific.

There is a potentially wide array of possible beliefs that could be hypothesized to be associated with fresh mushrooms. These, for example, may span the spectrum from risk perceptions, to health - nutrition perceptions to price - quality perceptions.

The literature reveals that it is vital to measure the consumers beliefs with respect to the product under study versus basing conclusions on the 'actual facts'. The 'actual facts' are far less important than the beliefs themselves; for it is the consumer's beliefs that will determine her behaviour rather than the true facts. Hawkins et al, (1992 p 232) comment as follows: ' It is the individuals interpretation, NOT objective reality that will influence behaviour. For this reason those perceptions thought to be associated with the product category must be measured. (Friedman, 1986 p 1-15) (Hawkins et al, 1992 p 232-233).

An example illustrates this important conclusion. CULTIVATED Fresh Mushrooms are NOT POISONOUS NOR CAN THERE EVER be a chance that they could be poisonous - FACT.

Past research, however, highlights that a certain percentage of consumers do perceive a risk of poisoning in the purchase and consumption of fresh cultivated mushrooms. This risk perception will affect their consumer behaviour with respect to fresh mushrooms. eg. Consumers may only purchase well known brands/brand leader ; may only purchase pre-packed mushrooms and not loose; may only purchase from well known retail outlets etc.

In summary, the author concludes that consumer's perceptions of the product category are a vital measure to include as they can directly impact on the consumer's purchasing and consumption behaviour as hypothesized by the author in Figure 4.3.

14.5 Salient Product Attributes and Brand Predispositions (Refer Figure 4.3)

14.5.1 Background

This construct attempts to measure consumers perceptions of the importance of various attributes associated with the category under study that would be likely to influence product and/or brand selection. In addition, it attempts

to measure consumer's perceptions towards the various brands in the market and how the brands rate on these salient attributes.

For example:

What is the consumer's perceptions of the importance of the attribute 'freshness' in influencing the purchase of fresh mushrooms. Which of the various national and regional brands do they associate with this attribute - freshness?

Specifically it is hypothesized that consumers will place different levels of emphasis on the various attributes that may or may not influence their selection of mushrooms and/or a brand of mushrooms. Those brands perceived as having higher levels of these salient attributes are more likely to achieve higher attitude ratings than those perceived as having lower levels. For example, certain consumers may place great emphasis on the freshness of the product and purchase the brand they perceive to be the freshest. Others may emphasize price and purchase the cheapest brand.

An attitude is the individuals affective feeling about the brand i.e. Whether and to what degree she likes the brand. An attitude towards a brand predisposes the buyer to react to that brand in a reasonably predictable manner. Thus the brand most liked by the individual (i.e. the one with the most positive brand predisposition) will be the one having the highest probability of selection in the market (i.e. the most positive chance of brand choice) (Boote, 1981 p 30).

There is much evidence in the marketing literature that supports the validity of the above stated relations among attributes, attitudes and brand choice (Hawkins et al, 1992 p 350-355; Fishbein et al, 1975 p 6). The author has attempted in Figure 4.3 to represent these relations in the context of the problem under investigation.

SUMMARY

In this chapter the literature revealed that the backgrounds of lifestyle and psychographics were quite separate and yet the marketing community uses the terms interchangeable. This has resulted in confusion; numerous different definitions abound and compounding this there are numerous different approaches to the construction of the measures of psychographics.

The author proposed to separate lifestyle from psychographics and confined the domain of psychographics to the more 'psychological process' thought to surround and impact on the consumer behaviour under study.

The definition adopted by the author for this study therefore defines psychographics in the broad sense as it was first intended when introduced to the literature.

Based on this, the author concludes that the CONSTRUCTION of psychographics for this study should encompass six measures hypothesized to impact on consumer behaviour under study:

- 1) Values
- 2) Role perceptions
- 3) Benefits Sought
- 4) Category Perceptions
- 5) Salient Product Attributes and Brand Predispositions
- 6) Buying Styles

Furthermore, the author concludes that these six psychographic measures should :

- 1) Be Individualized wherever appropriate to the product rather than framed in a general sense.
- 2) Be limited to the study of one product category at a time.
- 3) Include only those psychographic variables that are expected to be pertinent to the product under study as reflected in the hypothetical model proposed by the author in figure 4.1.

CHAPTER FIVE

APPLICATIONS OF PSYCHOGRAPHICS

INTRODUCTION

Chapter 4 highlighted that there were various definitions of the term psychographics and consequently various approaches to the operationalisation of the concept.

The literature however also reveals that there are certain elements common to psychographic research studies.

These are:

1) Psychographics promises something more than demographics

The author has already highlighted in Chapter 4, section 1, that one of the major problems associated with pure demographic segmentation is its lack of richness in describing consumers for market segmentation and strategy. It is said that demographics lack colour, texture and dimensionality when describing consumers and consequently often needs to be supplemented by something that fills in the 'bare' statistical picture. (Loudon et al, 1988 p 118)

Psychographic research promises to provide this richer understanding of the consumers that company's are attempting to target.

'Psychographic studies paint a more meaningful picture of groups of buyers than demographics alone do' (Harrell, 1986 p 261).

2) Psychographic is a Quantitative measure

The quantitative nature of psychographics allows the marketer to project his findings to the TOTAL market. Marketers it is therefore said, can determine the size of the segment as well as its major characteristics.

Psychographic research is said, therefore, to be quantitative in nature and yet provide many qualitative by-products.

In this Chapter the author examines the use of psychographics with respect to market segmentation and the supposed positive advantages to their inclusion either as basis and/or as descriptor variables.

In sections 1 and 2 the author will outline the purpose of including psychographic measures in a research project and the benefits that have been obtained based on past studies.

In sections 3 and 4 the application of psychographics with respect to market segmentation will be examined while in section 5, the author addresses how psychographics has been used in the development of marketing strategies based on these segmentation studies.

In the final section 6, the author debates the appropriateness of employing psychographics in segmentation studies depending on the type of product category.

1. The Purpose of Psychographics

The literature reveals that the purpose of including psychographics in a segmentation study is to understand the psychological processes of the core customers in the target group in order to communicate more effectively with people in that segment (Loudon et al 1988 p 118).

Marketers generally acknowledge that the more they know and understand about their customers, the more likely they will be able to develop new products or reposition existing brands to more effectively meet their needs. Psychographics is a tool that is used by many marketers to gain a greater understanding of these customers in order to do this more effectively (Meyer, 1983 p 25; Engel et al, 1990 p 348).

Plummer summarizes as follows:

'The basic premise underlying psychographic research is that the more marketers understand their customers, the more effectively they can communicate and market to them' (Plummer, 1974).

2. Advantages to the Inclusion of Psychographics in a Segmentation Study

The literature reveals that psychographic research is intended to either aid in a more meaningful segmentation of the market and/or to provide a more descriptive profile of the target segment(s).

The advantage to marketers it is said, is that psychographic analysis will result in vivid highly descriptive and practical profiles of consumer segments (Schiffman et al, 1991 p 123; Harrell, 1986 p 240).

The 'supporters' of psychographics argue that in many cases psychographics contributes significantly more than pure demographics to the explanation of consumer behaviour. Including psychographics in the analysis, they argue, may lead to the positioning of a new product or repositioning of an existing brand closely to consumers needs and wants perhaps more effectively than if the segment were described by demographics alone.

However, psychographics has many critics who state that in many cases it reveals little more than demographics, often proves to be redundant revealing little more than the obvious (Harrell, 1986 p 242). In addition, they state that its always expensive, often unreliable, invalid and can often be misleading. (Pernica, 1974 p 279-290). These criticisms will be further addressed by the author in Chapter 6.

3. Psychographic Segmentation Applications

Psychographics is one of the techniques that has been increasingly employed by marketers as a better way to define and/or describe target markets. As detailed by the author in Chapter 4, section 12, psychographic studies can be either general or product specific (Hustad et al, 1974 p 42-44). In addition psychographic variables can be used as a basis for segmentation or to profile target consumers (Refer Chapter 2) (Wells, 1974 p 325-334).

3.1 General Segmentation Orientations

In general studies, researchers seek to relate market behaviour to widely applicable psychographic measures. The psychographic measures employed are of a general nature (i.e. general descriptive variables and are NOT specifically related to the product category(s) under investigation). The general study is designed to be used across a variety of product classes.

Wells and Tigert were the 'pioneers' in the general approach (Wells, et al 1971 p 27-35). They developed a set of general Activity, Interest and Opinion variables (Refer Table 4.1, Chapter 4) that have subsequently been used in several published studies. (Bernay, 1971; Bernay, 1969; Tigert, 1969 p 310-315; Tigert, et al 1971 p 81-90; Wells, 1970 p 26-32; Wells, 1968 p 124-126)

A number of researchers also attempted to research a number of product classes simultaneously. (Bass, et al, 1969 p 337-363; Wells, 1968 p 85-100; Wells et al 1967 p 263-266). These researchers attempted to establish the extent that heavy users of a particular brand were also heavy users of other brands. These researchers hypothesized that it would be possible to identify TYPES of consumer who share common product needs. These consumer types could then be described by their 'common' psychographic characteristics.

Finally, certain researchers assessed the contribution that general psychographic measures could make to explaining demographic profiles of their target markets. (Hustad et al, 1974 p 47). These researchers highlighted that although

demographic variables were relatively exact measures they were not always the most appropriate and useful for all product categories, particularly those products which fall into the realm of discretionary purchases.

3.2 Product Specific Segmentation Orientations

In product specific studies, the analysis is based on psychographic measures specific to a product category and the activity's surrounding it. (Eg Food product - > food shopping and preparation styles). In the product specific studies the psychographic measures are designed to therefore explore the attitudes and activities assumed to be specifically relevant to the product class under study.

Haley and Heller were pioneers in the more specific approach. These researchers included psychographic measures that they hypothesized were more causally related to market behaviour, especially product class and brand purchase. (Haley, 1968 p 30-35; Haley, 1971 p 3-8; Heller, 1970 p 45-57).

3.3 Defining vs Profiling

The author detailed in Chapter 2, Figure 2.1 that 2 'types' of variables were employed in a segmentation study - the basis variable(s) on which the market is segmented and the descriptor variables which profile the resultant segments.

The literature reveals that psychographic measures may be used either as the basis variable(s) to segment the market or as descriptive variables to profile segments. General or specific psychographic variables may thus be used to define the segments or to develop an in depth understanding of the segments (Wells, 1975 p 228-237).

3.4 Five Alternative Approaches to Psychographic Segmentation Applications

Based on the previous discussion in sections 3.1 - 3.3, psychographic variables may be applied to segmentation studies in 5 possible ways. (Mehrotra et al, 1977 p 49-65; Wells, 1975 p 196-213). Figure 5.1 represents these 5 alternative approaches.

3.4.1.1 Methodology

The methodological approach to general psychographic segmentation appears to be somewhat standard across most studies. A large number of general psychographic statements are generated. These are then factor analyzed and the resulting factor scores are used to group respondents based on their similarity in 'lifestyle'. These groups are then cross-tabulated with demographic, product and media usage variables (Wells, 1975 p 233).

In this approach therefore users of a product might fall into several quite different segments.

3.4.1.2 Examples

The following example serves to illustrate this approach. Mehrotra et al (1977 p 54-55) report of a famous study by a leading advertising agency wherein the adult United States men and women were each classified into five 'life-style' segments. The female segments were descriptively named 'Eleanor,' the elegant socialite, 'Cathy,' the contented housewife, 'Thelma,' the old-fashioned traditionalist, 'Mildred,' the militant mother, and 'Candice,' the chic suburbanite. These segments were then evaluated by comparing their patterns of consumption behaviours. Differences in product and store preferences were found, as were differences in media exposure.

Based on the above, a marketer could supposedly discern which type of consumers were strong prospects for his brand, what other things might appeal to these prospects and how they might be reached through the media. Numerous other examples are found in the literature which support this approach (Wells et al, 1971 p 27-35; Bernay, 1971 p 189-195; Wells, 1975 p 233-235; Bellinger et al, 1980 p 83-92).

In a more recent study Aggarwal, (1990 p 251-259) tested the applicability of a general segmentation approach to a non-homogeneous culture. He segmented the Indian urban youth market on general psychographic

measures. He concluded that the psychographic statements helped to obtain a clear and meaningful segmentation of this market. He comments as follows:

'Personality, activity and consumption variables have worked in highlighting inter-segment differences and in better understanding segment character.'(Aggarwal, 1990 p 258)

Based on the general psychographic segmentation approach a number of syndicated services were developed by marketers both locally and internationally. These are detailed in the following section.

3.4.2 **Approach 2: Syndicated General Psychographic Segmentation Studies.** (Refer fig 5.1)

In this second approach use is made of a syndicated study employing general psychographic measures to segment the market.

A number of syndicated services are offered both locally and internationally.

3.4.2.1 **International Syndicated General Psychographic Segmentation Studies**

One of the most well known and well accepted syndicated services for general psychographic segmentation is the VALS program. (1984 p 35-54; Yuspeh, 1984 p 18; Atlas, 1984 p 49-59)

Developed and introduced by Arnold Mitchell, VALS 1 provided a systematic classification of American adults into nine distinct value and lifestyle patterns. (Mitchell 1983)

Marketers have reportedly used the VALS typology to successfully segment markets for their products/services and to target their promotional efforts (Schiffman et al, 1991 p 134; Adforum 1984 p 12-14; Engel et al 1990 p 353; Townsend 1985 p 22-29).

The literature, however, reveals that VALS 1 had certain inherent limitations (Kahle et al, 1986 p 405-409; Lastovicka et al, 1990 p 11-23; Novak et al, 1990 p 105-109; Riche, 1989 p 25) and in addition many marketers found it difficult to work with (Holman, 1984 p 35-54).

Finally there is literary evidence that suggests that other approaches, for example - LOV, if they were more widely investigated, might be of greater use to marketing organisations (Kahle et al, 1986 p 405-409; Burgess, 1989).

In order to try and overcome some of these limitations, SRI introduced a new system called VALS 2 in 1989.

VALS 2 has more of a psychographic base than the original VALS I and attempts to tap consumers relatively enduring attitudes and values.

Initial responses to the New VALS 2 system are favourable (Riche, 1989 p 25). In addition it has already been linked to numerous other data bases and geo-demographic systems.

Again the literature reveals that although VALS 2 has been revised it still shares some of the shortcomings of the original VALS I system. (Hawkins et al, 1992 p 330).

3.4.2.2 Local Syndicated General Psychographic Segmentation Studies.

The VALS model of market segmentation was tested for applicability to the South African market by Rousseau and Kruger in 1988. The literature reveals that the psychographic inventory developed for testing the model showed only modest reliability. It did, however confirm that the model could be used on a non racial basis. (Rousseau, 1988).

3.4.2.2.1 Sociomonitor

In 1976 Market Research Africa was the first to develop a large scale survey based on South African consumer values and lifestyles. It was called Sociomonitor and resembles the VALS model in many respects. Sociomonitor is conducted every two years in both white and black markets. (The two studies are conducted separately). Sociomonitor provides a conceptual framework for describing peoples values and lifestyle in such a way that their behaviour in the market place and in society can be explained and better understood. (Du Plessis et al, 1990 p 129).

3.4.2.2.2 Psyche

Markinor developed 'Psyche' in 1988.(Green , Oct 1988). It is somewhat different to Sociomonitor in that whites and blacks are not separated. The basic differentiation is high/low sophistication; young/old age and values. Only the urban population is covered.

3.4.2.2.3 Cross Cultural Consumer Characterization

Young and Rubicam's 4C's model is grounded in Maslow's theory that certain goals, motivations are so basic that they are shared by people across cultures, across race.

The 4C's hypothesis has to date been validated in eight countries comprising a mixture of first world cultures (Eg, USA, UK, W.Germany) and more third world orientated societies like Brazil. The '4C's' model is said to have a distinct advantage over sociomonitor because it is cross cultural, i.e. goes across race.

Young and Rubicam use the '4C's' model to gain a greater understanding of consumer thoughts and feelings for the purposes of creating advertising and fine tuning product imagery for enhanced target market acceptance; In addition it is used in strategic media planning. (Young and Rubicam 1988).

3.4.2.3 Commonalities Between the Models

The purpose of all of these three models is similar. In all instances they are 'analytical tools' that segment the TOTAL market into distinct groups by clustering together people who share similar psychological characteristics. The segment can thus be described in more human terms than pure demographic terminology.

The results are most commonly used to position/reposition new or existing brands, develop promotional campaigns and media strategy's.

3.2.2.4 Limitation of the Models

Like the VALS model, Sociomonitor, Psyche and the '4C's' are subject to similar limitations.

- 1) Models are all oversimplified for the purpose of enhanced understanding.
- 2) People are individuals with multitude of value-attitude

systems. It is impossible to 'box' them into finite neat 'psychographic segments'. What is depicted in the models, therefore, is the individual's predominant values.

3.4.3 Approach 3 : Profiling based on General Psychographic Characteristics (Refer fig 5.1)

In this third approach the general psychographic measures are included in a segmentation study as descriptive measures only. The marketer therefore uses the general psychographic measures to describe target set(s) of consumers. Marketers included the general psychographic measures because they believed that it provided much added information on which they could base marketing decisions. The profiling of respondents on general psychographic measures was said to be of great descriptive value to the marketers. (Wells, 1974 p 228).

3.4.3.1 Methodology

In addition to the general psychographic measures, product usage rate and demographic variables were usually included in the analysis (Hustad et al, p 45). All these measures were then correlated with and/or cross tabulated against the product category of interest. The literature reveals that to a certain extent the results of the analysis and the interpretation were to a degree reliant on the analysts skill, experiences and ingenuity.

3.4.3.2 Examples

One of the first studies conducted by Wells and Tigert was to profile the heavy users of carry-out fried chicken. (Wells and Tigert, 1971). Based on the psychographic profile of the heavy user and in addition, his demographics and usage of other products, the researchers made a number of strategic recommendations relating to pricing, home delivery. etc.

Plummer conducted a study on bank credit card usage. He similarly identified certain lifestyle patterns and characteristics of credit card users which he used as a basis for marketing planning. (Plummer, 1971 p 35-41).

Insurance Companies have also made use of general psychographic data to profile accident prone drivers. Based on the findings these companies have

developed more effective communication programs. (Mehrotra et al, 1977 p 57)

General psychographic measures have been used more recently in a social marketing role. Specifically a study was conducted to profile blood donors vs non-donors. Significant psychographic differences were found between the two groups. Based on this, the researcher identified opportunities on which to focus promotional programs in order to increase blood donorship and to address potential donorship. (Burnett, 1981).

A number of studies have focused purely on general personality traits to profile target sets of consumers. (Koponen, 1960 p 6-12; Frank et al, 1969 p 15-24; Advertising Research Foundation, 1964, Kinnear, 1974 p 20-24).

There are numerous other studies cited in the literature wherein general psychographic measure have been used to obtain more descriptive profiles of the target segment(s). (Grubb et al, 1968 p 58-63; Jacobson et al, 1963 p 242-245; Ross, 1971 p 38-50; Vitz, 1965 p 155-159; Wells et al, 1971 p 27-35).

In all these cases, the researchers concluded that the psychographic data provided rich descriptive detail that could not have been inferred from the demographics alone.

3.4.4 Approach 4 : Segmentation Based on Product Specific Psychographic Characteristics. (Refer fig 5.1)

In this fourth approach the marketer uses specific psychographic measures as a basis on which to segment the market under study. The marketer specifically tailors the psychographic measures to be product or activity specific.

This is possible since the psychographic instrument in the 'product specific' approach is 'devoted' to one product category and therefore the inventory of statements focuses on product related psychographic measures.

3.4.4.1 Methodology

The Methodology employed in this approach is as follows:

The 'specific' psychographic items are reduced to a smaller number of scores by factor analysis. These factor scores are then input typically to a Q type factor analysis which assigns respondents to homogenous groups. Respondents are, therefore, grouped on their similarity in behaviour with respect to product specific psychographic measures.

3.4.4.2 Examples

Numerous examples are cited in the literature that support this approach. (Frank et al, 1972 p 385-390; Young, 1972 p 49-82; Ziff, 1973 p 457-461; Wicks, 1989; Ziff, 1974 p 129-155; Hustad et al, 1974 p 31-70; Heller, 1968 p 45-47; Haley, 1968 p 30-35; Haley, 1971 p 3-8). Pernica demonstrated the advantage of product specific psychographic segmentation for the stomach remedy market (Pernica, 1974 p 277-313). Mehrotra and Wells highlighted its' usefulness for the travel market. (Mehrotra et al, 1977 p 56).

The examples cited above were all segmentation studies in which specific

psychographic variables were used as the basis for segmenting the marketers.

The literature reveals that the supposed advantage of this approach is that the groups that emerge are said to be more sharply defined in terms of their usage for a particular product or service. (Loudon et al, 1988 p 12).

3.4.5 Approach 5 : Profiling Based on Product Specific Psychographic Characteristics.(Refer fig 5.1)

In this final approach, the psychographic study is again limited to a single product category. In this case, however, use is made of a limited set of relevant product related psychographic measures to profile the target set (s) of consumers (Wells, 1974 p 422).

The use and contribution of product specific psychographic variables as potential descriptor variables is the specific area of application to be evaluated in this thesis.

3.4.5.1 Methodology

In this approach the descriptions of the target groups are developed by considering all the psychographic items that discriminate between the target group and the remainder of the population or that discriminated between the specific groups that are to be profiled (for example Users vs Non-Users; Heavy Users vs Light Users). (Wells, 1975 p 233)

3.4.5.2

Examples

Ford Motor company used product specific profiles to target potential customers for the Ford Pinto. Based on the findings, the brand was successfully repositioned and relaunched. (Young 1973 p 13-16).

Colgate Palmolive developed a product specific psychographic instrument to profile soap users. In so doing they identified an opportunity for a new product. Three years after launch the brand was the third leading bar soap on the market. (Media Decisions, 1976 p 70-71, 104, 106).

Product Specific measures have been used to profile beer drinkers (Plummer, 1972 p 294) and to differentiate between heavy users and light users of beer. (Wells, 1974).

In one study, a specific psychographic instrument was used to profile major brand users of gasoline. The results showed that there were differences between the major brand segments, regional brand segments and discount brand segments. (Kinnear et al, 1976 p 423)

4. When To Use - General vs Specific Approach²

In the previous section, the author addressed the FIVE different approaches to the use of psychographics for market segmentation.

It was highlighted that in these different approaches, psychographic measures could be either general or specific.

In order to decide on which approach to adopt the researcher is faced with two questions:

- 1) Should one use general versus specific psychographic measures?
- 2) Are there situations that determine the use of general versus specific measures?

Early schools of thought predominantly used the generalized approach. Much of the criticism of psychographics has however been aimed at the general psychographic measures.

Even Tigert (as noted by the author in Chapter 4, section 12 - a pioneer of the general psychographic approach) now criticises the general approach. He comments as follows:

'I almost totally reject the concept of grouping people into lifestyle clusters - there is just no such thing as an Eleanor or Candice - they are just not out there.' (Tigert quoted in Bernstein, 1978 p 84).

Tigert, furthermore, argues that in general lifestyle segmentation studies 'those types' who seem to have been so neatly segmented by their 'attitudinal differences' actually overlap one another to a large degree.

Other researchers agree - certain of these who have used cluster analysis for

² The author addressed the question of general versus specific psychographic measures in Chapter 4, section 12. This section serves to further the debate in relation to implementing segmentation studies.

segmentation purposes comment on how diffuse the clusters are (Punj et al, 1983), while others note that the responses to certain questions about particular subjects are unlikely to be able to be used to predict responses about different subjects or at best the confidence levels assigned to any such prediction would be low. (Bernstein 1978)

The literature, therefore reveals, that like Tigert, many other marketers are tending to support the product specific approach. (Meyers et al, 1974 p 254; Pernica, 1974; Monk, 1973 p 14-19; Young, 1971 p 220-222; Ziff, 1971 p 3-10, Hustad et al, 1974)

The general studies tend still to be used however but to uncover more 'general' broad based TRENDS in the market place (both local and global). These general studies are said to still be useful but as a basis for visualizing overall marketing opportunities, (Harrell, 1986 p 287) to uncover new product opportunities or new ways to promote existing products. (Holman, 1984 p 35-54).

In many cases, however, it is recognised that the general studies are limited because they do NOT contain statements about specific products. (Harrell 1986 p 287).

Where the objective of the study is specific to an industry, product or service the more 'modern' focus is, therefore, on the product specific psychographic studies for both segmenting and profiling a specific product category of interest.

Many researchers (Ziff, 1974; Boote, 1981; Dhalla, 1976; Haley, 1984) conclude that if the psychographic measures are confined judgementally to those expected to be relevant to a particular product category, much more insight is likely to be gained regarding the basis for product usage or purchase behaviour.

These findings further reinforce the author's decision to only include product specific psychographic measures hypothesized to be relevant to the purchase and

consumption of the product category under investigation (Refer Chapter 4, sections 11, 12 and 14)

5. Uses of Psychographics

The author stated in Chapter 3, section 1.5 that the purpose of segmenting a market is not as an end in itself but rather it provides the basis on which to successfully develop and target marketing strategies.

Psychographic variables as were seen from the previous section can be used as a basis for segmentation (i.e. define the segments) or can be used to profile (i.e. describe) the segments. By including psychographic measures in the segmentation analysis markets have found them to be useful in the following areas for developing marketing strategies.

5.1 Development of New Products

Psychographics has often been cited as the 'reason' for the new product introduction.

Psychographic research is said to often uncover some 'new' or 'unserved' market segment. Based on this marketers could identify an opportunity for a new product introduction (Schiffman et al, 1982 p 27-28; De Bruiker et al 1980, p 11-13). In addition the psychographic data is said to reveal knowledge about these consumers desires which facilitates the design of new products (Media Decisions 1976 p 70-71).

5.2 Product Positioning and Repositioning Strategies

Product positioning/repositioning strategy requires understanding the markets filled and unfulfilled needs so that the product appeals can be extended to a new segment or a larger segment.

Psychographics have been used to compliment the more commonly used variables to achieve the desired positioning strategy.

In addition, psychographic measures have been used to position a brand based on the inferences drawn from the portrait of the consumers (eg. in terms of needs/benefits sought and in terms of how the product fits into his life) (Engel et

al, 1990 p 348).

Psychographic measures can also be of use in repositioning two brands that appeared to be targeting the same segment.(Veltri et al 1984, p 202).

5.3 Development of Advertising and Media Strategies

The literature reveals that the most extensive use of psychographic analysis has been in connection with the development of advertising campaigns (Wells 1974, p 320). It is reported that psychographic measures can particularly aid the marketer by:

- 1) Providing an 'understanding' of the consumers mental processes (Eg. values, category beliefs and perceptions) and thereby provide a source of ideas for advertising approaches. Psychographics is said to provide a richer more lifelike picture of target consumers than pure demographics. This specifically aids in the development of creative advertising strategy by providing a creative person with a better idea of the type of person he is trying to reach and providing indications of what might/might not be appropriate to the 'lifestyle' of the target consumer.

Plummer comments as follows:

'It is widely acknowledged that the more you know about your audience, the more effectively you can communicate with him. Psychographic research can and does help the advertiser understand the consumer as a real person rather than a number and therefore has become an important part of learning about the consumers to whom advertising is to be addressed'. (Plummer, 1974 p 159).

- 2) Providing an insight as to how consumers might relate to media usage. (Plummer, 1974 p 159-169)

Marketers are faced with the problem of selecting amongst the

different media vehicles to most effectively and efficiently reach their target audiences.

Quantitative data is generally available to help marketers make this decision, however, descriptive data of the viewers or readers is harder to come by.

'Advertisers can usually find out how many heavy users a medium will reach, but they find it very difficult to get reliable information on what these heavy users are like'. (Michaels 1973 p 324-331).

Based on extensive investigations, Tigert concluded that psychographic profiles of media users could be more important to advertisers' selection of media than could traditionally used demographic variables. (Tigert 1974 p 179).

5.4 General Consumer Related Decisions

Over and above decisions related to and based on market segmentation strategies, psychographic studies has also benefitted other consumer related decisions:

5.4.1 Design of Marketing Channels

Psychographics has provided useful data for distribution system designs. In particular changing lifestyles affect channels of distribution and by taking these into account marketers can develop new or revise existing channel structures/operations (Hodock, 1974 p 205-221).

5.4.2 Industrial Design

Psychographic data has been shown to be useful to industrial designers when creating product designs to satisfy consumer wants (Frye et al, 1974 p 225-232).

5.4.3 Retail

Psychographics has been applied successfully in a variety of retail settings.

It has proved useful in segmenting consumers into various retail shopper categories. (Bellenger et al, 1980 p 83-92). Psychographics has also proved useful as a tool for describing store loyal customers, consumer outshoppers and patronage preference groups. (Darden et al, 1976 p 51-60; Darden et al 1974 p 99-113; Hawes et al, 1984 p 200-218; Reynolds 1974; 1972).

5.4.4 Lifestyle Trends

Psychographics has been used successfully to measure changing lifestyle trends for women (Venkatesh, 1980 p 189-197). Specific studies have focused on changing women's roles and how this impacts upon their more 'traditional' activities (Eg. food shopping, food preparation) (Jackson 1985; Roberts et al 1979).

5.4.5 Social

Psychographics has been used for profiling blood donors versus non donors (Burnett, 1981) and for Profiling ecologically aware consumers (Kinnear, 1974 p 20-24).

5.4.6 Cross Cultural Marketing Strategies.

Internationally, marketing strategy is conducted increasingly on a global basis. (Engel,1990 p 353). Multinational marketers face the challenge of creating marketing and advertising programs capable of communicating with a diversity of target markets.

What marketers desired to know was if there were discernable lifestyle segments that would cut across cultures. It was hypothesized that if there were, cross cultural strategies could be developed around these segments.

Based on the above a number of attempts have been made to develop lifestyle measures applicable across cultures. (Pearson, 1985 p 67-73; Mitchell, 1984 p 4-13; Marketing News 1988 p 17)

6. Is Psychographic Research Appropriate for all Product Categories?

A thorough review of the literature indicates that psychographic research has been applied to a wide variety of products and services (Refer Table 5.1).

Table 5.1: Selected List of Well Known Product Categories that have Benefitted from Psychographic Research

CATEGORY	TYPE/BRAND	SOURCE
Food	Shortening	Wells et al, 1974 p 27-35;
	Dog Food	De Bruicker et al, 1980 p 11-38
	Nuts	Townsend, 1985 p 22-29
Beverages	Beer (Brand=Schlitz)	Wells, 1974 p 321
	Energy Drink (Brand = Luccozade)	Lovell, 1974 p 263-266
	Coffee (Brand= Sanka)	Engel et al, 1990 p 348
Fashion	Intimate Apparel	Richards et al, 1977 p 89-91
	Woollen Clothing	Ziff, 1974 p 150-154
Pharmaceutical	Stomach Remedy's	Pernica, 1974 p 277-3'3
	Fruit Salts (Brand = Alka Seltzer)	Lovell, 1974 p 266
	Toothpaste	Haley, 1968 p 30-35
Cosmetic	Eye Make-up	Wells et al, 1971 p 27-35
	Hand Soap (Brand=Irish Spring)	Media Decisions, 1976 p 70-71
	Heavy Duty Hand Soap	Plummer, 1974 p 165-167
Industrial Products	Clock Radio	Frye et al, 1974 p 225-232
	Shot gun ammunition	Wells, 1975 p 228-231
Fuel	Gasoline	Kinnear et al, 1976 p 423
Tourist/Travel	Air Canada	Mehrotra et al, 1977 p 53
Transport	Car (Brand=Ford Pinto)	Young, 1973 p 13-16
	Bus (Brand=Greyhound)	Rydholm, 1989 p 6-7;39-40
Franchise	Fast Food (Brand=Kenucky Fried Chicken)	Tigert et al, 1971 p 81-90
	Family Restaurant Chain	Boote et al, 1981 p 29-35
Banking	Credit Cards	Plummer, 1971 p 35-41
Insurance	Minnesota Mutual	Olson, 1989 p 8-9;48-51
Communication	Telephone Service (Client = ATT)	Schiffman et al, 1982 p 27-28
Media	TV Shows/TV News	Wicks 1989 p 64-71
	Magazines (Brands =Playboy/TimeReaders Digest/ Newsweek)	Tigert, 1974 p 173-201

Table 5.1 lists a number of products and services that have benefitted from psychographic research. It bears testimony to the popularity of psychographics and to its ability to be used across a wide range of products and services.

There is, however, evidence in the literature that indicates that certain researchers believe that psychographics measures are only useful for certain types of product/services.

These product/services are described as follows:

- Relatively expensive products (eg. automobiles/boats).
- Discretionary products or services (eg. video cassette recorders/health club membership)
- Somewhat indistinguishable products (Soft drinks/beer/liquor).
- Products designed for the minority.
- Products/Services with high involvement.
- Products/Services that have symbolic values.
- Products/Services whose function is psychological gratification.
- Products/Services whose performance cannot be evaluated objectively.

Both Weinstein (1987) and Struse (1979) believe that psychographic research is inappropriate for:

- Commodities
- Products purchased on the basis of price
- Products always purchased by experts
- Low involvement products
- Products purchased on specification.

They conclude that psychographic research is unlikely to pay off if :

- Advertising is a minor element in the marketing mix.
- Consumers are either indifferent or completely loyal to a brand.
- Consumers find no problem with existing brands.
- One company totally dominates the category.

The author acknowledges the reservations expressed by these researchers. It is the author's opinion, however, that the success of psychographic research depends NOT so much on the TYPE of product under investigation, or the market/competitive scenario but rather is dependant on the researchers approach to a psychographic segmentation study.

Specifically, the author hypothesises that if psychographics is defined in the broadest sense (i.e. to encompass all psychological processes hypothesized to be relevant to and therefore impact on the consumer's behaviour with respect to the product category under investigation) and if it is operationalised accordingly it will be of benefit to the market researcher regardless of the product/service under investigation. The issue surrounding the definition and operationalization of psychographics has been covered by the author in Chapter 4 and will not be further debated here. It is suffice to note that the definition adopted for psychographics and the measures selected for a psychographic segmentation study would, in the authors opinion, impact upon its contribution.

It is also the authors' opinion that the contribution of psychographic variables to a segmentation study would depend on the role they were expected to play (i.e. BASIS versus DESCRIPTOR VARIABLES). This will be further debated by the author in Chapter 6, section 6.3).

SUMMARY

The literature revealed that psychographics has, and continues to be, the object of increasing research and application in marketing because of the benefits it can offer marketers.

Specifically, the author has focused on the application of psychographics for market segmentation strategies.

There are five approaches to the use of psychographics in market segmentation : Psychographics measures may be either general or specific. Furthermore, psychographic measures may be used to define market segments or to profile segments.

While the author sought to treat each of these approaches separately, common to all the approaches, however, is the following:

- Psychographic measures identify groups of consumers that may warrant differential treatment (e.g. Heavy Users vs Light Users or Users vs Non-Users).
- Psychographic measures enhance understanding of the groups.

The value of including psychographics in segmentation studies, it appears, is the extent to which it 'fleshes out' the demographic picture of the target consumer.

In addition, in certain cases, it has provided a variety of new dimensions that have been useful in description and prediction of product choice.

In other instances, it has provided information on which to base effective marketing strategies. Specifically past psychographic research has helped marketers to:

- Develop multi-dimensional views of the target segments
- Uncover new product opportunities
- Implement positioning/repositioning strategies
- Develop improved advertising communications based on richer, more lifelike portraits of the target consumer.

- Implement more effective and efficient media strategies.

Over and above these more 'practical' benefits, psychographics has also contributed to the general knowledge of consumer behaviour in three ways:

- 1) First, they have contributed to a better understanding of numerous consumer behaviour facets such as opinion leadership, retail shopping, private-brands buying, consumerist activism, and other attributes.
- 2) Second, with the repetition of studies, trend data may be accumulated to show how consumers may be changing.
- 3) Third, general segmentation of consumer groups are creating new typologies for more efficiently describing and understanding consumer behaviour. (Wells, 1975 p 209).

While there is a large volume of evidence that supports the inclusion of psychographics in a segmentation study, the author acknowledges that in a number of cases these studies have attracted sharp criticism. In addition, the author noted in Chapter 1 that psychographics as a measure to include in segmentation studies has declined in popularity over the last decade.

In particular, the earlier studies which made use of general psychographic measures have been most fiercely criticized with the result that the modern day approach is towards product-specific studies. The product specific measures are said to enhance the discrimination between the segments and are much more likely to be predictors in product/brand choice.

The more recent literature also provides evidence that psychographic research studies are subject to several problems with regards to obtaining, interpreting and analysing the psychographic information (Lastovicka, 1990; Anderson, 1984). These issues along with the questions of reliability and validity will be addressed in the following chapter.

CHAPTER SIX

PROBLEMS AND LIMITATIONS OF PSYCHOGRAPHIC RESEARCH

INTRODUCTION

Despite the popularity of psychographic information, users of psychographic segmentation approaches have found that they suffer from a number of shortcomings (Adams 1982).

The following six points are just some of the serious conceptual and operational criticisms that have been levelled at psychographics in the literature.

- 1) The validity of market segmentation solutions cannot be ascertained because of the limited theory linking segmentation descriptors to the decisions of the firms. (Pernica 1974, Wells 1975, Wind and Green 1974).
- 2) Segmentation descriptors which are chosen because they richly describe should not necessarily be expected to predict well. (Wells 1974).
- 3) Lifestyle and psychographic dimensions may have added to the predictive ability of demographics, but their relationships with consumer behaviour have been far from impressive, (Frank, Massy, and Wind 1972; Wells and Tigert 1971).
- 4) By attempting to analyze 'everything with everything,' psychographic market segmentation practice is merely an exploratory first stage of the research process. (Hustad and Pessemier 1974, Wind and Green 1974).
- 5) Because of the limited theoretical development, psychographics research ignores the hierarchy of effects learning behaviour consumers go through in making decisions. (Wind 1978).
- 6) Since adequate psychographic theory has not been developed, the selection

of segmentation descriptors and scales is too often a 'fishing expedition'.
(Hustad and Pessemier 1974, Wind and Green 1974).

The purpose of this chapter is to focus on conceptual, measurement and analytical problems of psychographic research.¹

The literature reveals that psychographic measures have repeatedly been challenged on the grounds of RELIABILITY and VALIDITY (Mehrotra and Wells 1977; Lastovicka 1982; Boote 1981; Kinnear et al 1976).

The author will therefore define and address the broader issues pertaining to reliability and validity in the first section of this Chapter.

The lack of a theoretical foundation for psychographic research and the lack of a universally accepted definition (both conceptual and operational) will be addressed in the subsequent two sections. The author will then proceed to discuss specific problems highlighted in the literature that are typically associated with psychographic segmentation research.

These specific problems will be addressed under 3 headings:

- 1) Getting the Data
- 2) Analysing the Data
- 3) Interpreting and Implementing the Findings.

The literature will reveal that there are no definite answers to all of the problems and criticisms. It is the authors intention, however, to comment critically on the problems typically associated with psychographic information and to bring to the readers attention some of the problems that still remain unanswered.

¹ In this chapter, the author makes no attempt to address those issues which are endemic to survey research in general. Rather it focuses on those problems that have proved to be of particular concern with regards to psychographic research.

1. The Issues of Validity and Reliability

The major criticism levelled at psychographics is that the results are not always reliable and valid.

For the purposes of this thesis reliability and validity will be defined as follows:

The term **RELIABILITY** relates to freedom from random error (Wells 1975 p 237). In simplified terms, it refers to the **CONSISTENCY** of responses on a test - i.e. Would the same groups\profiles emerge in a test-re test situation?

The term **VALIDITY** relates to the degree that it really does measure what it was intended to measure (Wells 1975 p 240). Criticisms of validity of psychographic data have generally been targeted at all or a combination of the following:

- 1) Content Validity - completeness of the variable sets
- 2) Construct Validity - meaning of the variable sets
- 3) Predictive Validity - Usefulness of the variable sets. (Hustad et al 1974 p 63).

It should be noted that psychographic measures may be reliable without being valid.

Wells comments as follows:

'They can be relatively free of random error but so full of irrelevancies and biases that conclusions based on them are partly or even completely false' (Wells 1975 p 240)'.

Unfortunately very few researchers who have used psychographics have addressed the issues of either or both reliability and validity.

1.1 Assessment of Reliability and Validity

Many researchers acknowledge the importance of reliability and the need for

validity in psychographic research, yet little empirical work has been reported. (Wind et al 1974 p 120).

Boote comments as follows:

'Given the extensive literature on psychographics, the relatively SPARSE coverage of the reliability issue is surprising' (Boote, 1981 p 53).

The author could find only a few published studies that had specifically addressed the subjects of validity and reliability. Only three of the most useful will be reported on.

- (1) Lastovicka (1982 p 126-138) addressed the issue of the validity of psychographic measures. He undertook a review of the published literature on psychographics to assess past studies which had addressed the issue of validity measurement.

Table 6.1 is an evaluative summary of fourteen published studies which he found had reported, at least in part, on lifestyle and trait validity. Ten of the studies also included reliability estimates.

Table 6.1

Summary of Studies Providing Information on the Validity of Lifestyle

Traits

Study identification number and full citation	Traits investigated	Reliability	Invariance	Cross-validation	Discriminative validity	Convergent validity	Content validity	Nomological validity	Comments
1. Burns & Harrison (1979). "A Test of the Reliability of Psychographics." <i>Journal of Marketing Research</i> , 16, 32-8.	"Compulsive Housekeeper," "New Store Trier," "Child Centered," "Sports Spectator," "Self-Confident," "Sports Participant," "Trip Taker," "Credit User," "Financial Optimist"	Yes, internal consistency with a on sum scores	No	No	No	No	Yes, all items presented.	No	As a sum-score composite measure includes both the common and unique components of a set of observed variables and a fact score measure includes only a common component of the observed measures, a better estimate of the reliability of the trait measure would have been the reliability of the factor score measure.
2. Ahmed & Jackson (1979). "Psychographics for Social Policy Decisions: Welfare Assistance." <i>Journal of Consumer Research</i> , 5, 229-39.	"Independence from Government," "Morality of Welfare," "Marriage," "Work Ethic," "Altruism," "General Acceptance of Welfare"	Yes, internal consistency with a on sum scores	No	No	Yes, all sum score scales' intercorrelations presented. Also, correlations with a "positive response bias" scale are shown.	No, but the covariation of an unknown scale which tapped a similar trait is discussed. Numerical values not presented.	Yes, all items presented.	Yes, sum score scales are covaried with sociodemographics where there apparently are expected relationships.	Comment about Burns and Harrison (1979) is applicable.
3. Teel, Bearden, & Durand (1979). "Psychographics of Radio and Television Audiences." <i>Journal of Advertising Research</i> , 19, 53-6.	"Old Fashioned," "Outgoing-Individualistic," "Service-Quality Consciousness," "Fashion-Consciousness," "Other-Directedness"	Yes, internal consistency with a on sum scores	No	No	No	No	Yes, some items presented.	No	Comment about Burns and Harrison (1979) is applicable.
4. Plummer (1977). "Consumer Focus in Cross-National Research." <i>Journal of Advertising</i> , 6, 5-15.	"Patriot-Discipline," "Style Consciousness," "Working Class Values-Traditional Role"	No	Yes, visual inspection of major loadings across 3 countries	No	No	No	Yes, some items presented.	No	Although the author claims to briefly examine construct validity, in fact, only invariance is really examined.
5. Douglas & Urban (1977). "Life-Style Analysis to Profile Women in International Markets." <i>Journal of Marketing</i> , 41, 56-4.	"Home," "Social," "Frustration," "Innovation," "Intellectual," "Role"	No	Yes, visual inspection of major loadings across 3 countries	No	No	No	Yes, all items presented.	No	
6. Darden & Perreault (1976). "Identifying Interurban Shoppers: Multi-Product Purchase Patterns and Segmentation Profiles." <i>Journal of Marketing Research</i> , 13, 51-60.	"Price Consciousness," "Fashion Conscious," "Dilettante Housekeeper," "Community Minded," "Self-Confidence," "Opinion Leadership," "Information Seeker," "New Brand Trier," "Casual Food User," "Diner," "Financial Optimist," "Wide Horizons," "Arts Enthusiast," "Patronage Innovator," "Patronage Opinion Leader"	Yes, split-half reliability of sum scales	No	No	No	No	Yes, but only 1 item per scale is presented.	No	Split-half reliability is inappropriate. Use of Cronbach's alpha would have been preferable.
7. Villani & Lehmann (1975). "An Examination of the Stability of AIO Measures." in 1975 <i>Combined Proceedings</i> , E. M. Mazza, ed. Chicago: American Marketing Association, 484-8.	"Creative Cook," "Attitude toward Television," "Home Cleanliness," "Religious Practices"	Yes, test-retest analysis consisting of visual inspection of loadings	No	No	No	No	Yes, some items presented.	No	Loading similarities could have been quantitatively assessed.
8. Darden & Perreault (1975). "A Multivariate Analysis of Media Exposure and Vacation Behavior with Life Style Covariates." <i>Journal of Consumer Research</i> , 2, 93-103.	"Generalized Self-Confidence," "Opinion Leadership," "Plan Ahead Traveler," "Information Seeker," "Camper Traveler," "Relaxing Traveler," "First-Class Traveler," "Insouciant-Vagabond Traveler," "Sports Spectator," "Functional Gregarious"	Yes, split half reliability of sum scale parallel forms	No	No	No	No	Yes, but only 1 item per scale is presented.	No	Comment about the Darden and Perreault (1976) study applies
9. Reynolds, Darden, & Martin (1974). "Developing an Image of the Store-Loyal Consumer." <i>Journal of Retailing</i> , 50, 73-84.	"Store Loyalty"	No	No	Yes, but the scale was cross-validated with a subsample of the data	No	No	Yes, all items listed.	No	Although the authors claimed to have examined construct validity in fact, only content and cross validation are partially examined.
10. Darden & Reynolds (1974). "Backward Profiling of Male Innovators." <i>Journal of Marketing Research</i> , 11, 79-85.	"Interest-Male Fashions," "Interest-Personal Grooming," "Interest-Home Care," "Information Seeking-Male Fashions," "Information Seeking-Personal Grooming," "Information Seeking-Home Care," "Opinion Leadership-Male Fashions," "Opinion Leadership-Personal Grooming," "Opinion Leadership-Home Care," "Self-Esteem, Generalized Self-Confidence," "Attitude toward Change," "Life Style Versatileness"	Yes, split half reliability of sum scale parallel forms	No	No	No	No	Yes, but only one item per scale is presented.	No	Although the authors claim to have examined construct validity, in fact, only content validity and reliability are examined. Also, comment about Burns and Harrison (1979) is applicable.
Reynolds & Darden (1971). "The Mediative Effects of Interpersonal Communication." <i>Journal of Marketing Research</i> , 8, 449-54.	"Opinion Leadership," "Information Seeking," "Fashion Interest," "Self-Confidence"	Yes, split half reliability of parallel forms for 2 of the 4 traits	No	No	No	No	Yes, all items listed.	No	Comment about Darden & Reynolds (1974) applies.
11. Pessemier & Bruno (1971). "An Empirical Investigation of the Reliability and Stability of Selected Activity and Attitude Measures." in <i>Proceedings, Second Annual Conference of the Association for Consumer Research</i> , D. M. Gardner, ed. College Park, MD, 389-403.	"Change-Uncertainty Avoidance," and 19 other unlabeled empirical factors	No	Yes, visual inspection of factor loadings. Primary comparison was between U.S. and Canada.	No	No	No	Yes, all items listed.	No	
Tigert (1969). "Psychographics: A Test-Retest Reliability Analysis." in <i>Marketing Involvement in Society and the Economy</i> , P. R. McDonald, ed. Chicago: American Marketing Association, 310-15.	"Saver," "Diner," "Sports Fan," "Unhappy Housekeeper," "Fashion Consciousness," "Involvement in Husband's Work," "Personal Appearance Consciousness," "Price Consciousness," "Auto Advertising," "Full-Life," "Pro-Discout House," "Information Seeker," "New Brand Trier," "Negative Attitudes toward Life Insurance," "Satisfaction with Life," "Brand Loyalty"	Yes, both test-retest reliability and internal consistency reliability	No	No	No	No	Yes, but inconsistent listing of the items.	No	The test-retest reliability consisted of a visual inspection of factor loadings obtained from analyses of data that were collected at two points in time. Internal consistency reliability apparently applied to the sum score scales.
Wilson (1966). "Homemaker Living Patterns and Marketplace Behavior—A Psychometric Approach." in <i>New Ideas for Successful Marketing</i> , J. S. Wright and J. L. Goldstucker, eds. Chicago: American Marketing Association.	"Conspicuous Mindfulness," "Happy Homemaker," "Fashion Conscious," "Special Shopper," "Loyal Shopper," "Child Oriented," "Sports Spectator," "Arts Enthusiast," "Active Adult," "Weight Watcher," "Phlegmatic," "Church Goner," "Routinized Mindset," "Budget Minded," "Heavy Conscious," "Family Manager," "Eccentric," "Down-for-Husband Oriented," "Butterfly"	Yes, but assessed by subscale means	No	No	No	No	Yes, but some scales are discussed without presenting the items.	No	

Based on these findings, Lastovicka concluded that even though these studies had attempted to measure validity and reliability, they still failed to consider ALL possible dimensions of validity that needed to be reviewed.

He comments as follows:

'Typical procedure has been PARTIAL measurement of validity assessment (with a reliability estimate) and PARTIAL examination of concept validity (with face validity). This suggests a tradition of weakly validated lifestyle traits and measures'. (Lastovicka, 1982 p 129)

- (2) Kinnear and Taylor (1976, p 422 - 424) repeated two studies that had been conducted earlier in order to test the reliability of psychographic relationships. In both cases they found that the results compared favourably providing evidence, they said, of reliable psychographic relationships. (Kinnear et al, 1976 p 429).

Kinnear and Taylor, however, also tested (in the same study) the reliability of the structure of segments produced by various factor analysis and clustering procedures. They found little agreement among the market segments in terms of size or composition and concluded that the overwhelming non-consistency of the results proved that the structure of segments produced were not reliable. (Kinnear et al, 1976, p 424).

- (3) Boote in 1981 tested the reliability of scales used for collecting psychographic data. He concluded that a scale consisting of 5 labelled points was the more reliable and appropriate for use in psychographic segmentation studies than any other scale format (Boote, 1981 p 58).

The Boote and Kinnear and Taylor studies do provide some evidence of reliability in psychographic measures. However Lastovicka and Kinnear and Taylor's structural findings appear to confirm a number of critics opinions as to the lack of validity and reliability of psychographic traits and measures.

The author will address the issues of validity and reliability in greater detail within

the context of data collection, analysis and implementation in sections 4, 5 and 6 of this Chapter.

2. Lack of Theoretical Foundation

The literature reveals that the primary focus of psychographic research has been to solve managerial problems rather than to develop a rigorous theory of psychographics (Wilkie, 1990 p 114).

Many researchers, in fact, now agree that psychographic research has moved away from a solid grounding in psychological theory (Wilkie 1990 p 114).

Furthermore the development of psychographics has been haphazard since it has not been guided by an explicit theory of human behaviour. (Hustad et al, 1974 p 59).

Specifically the literature reveals that many studies begin with no explicit hypothesis, utilize poorly conceived questionnaires and are not followed by careful testing of observed relationships. (Hustad et al, 1974 p 49).

This lack of sufficient theory guiding the psychographic research process causes further problems with respect to analysis and interpretation of the data.

Wind et al comment as follows:

'With little explicit theory guiding the compilation of the statements, it is perhaps remarkable that psychographic analysis has led to some useful differences among brand users.' (Wind et al, 1974 p 244).

3. Lack of Definitional Consensus

In part due to the lack of a solid theoretical foundation there has been the problem of no one definition that has consistently been adopted and applied by the marketing community.

There is much literature evidence that highlights and criticizes psychographic research for its lack of a universally accepted conceptual and operational definition for psychographics.² (Reynolds et al, 1974 p 84; Wind et al, 1974 p 105-106).

Boote comments as follows:

'Psychographics has been subject to ambiguous definitions, which means there is considerable disagreement over the way they should be measured'.
(Boote, 1980 p 116).

Sections 1, 2 and 3 have addressed some of the general criticisms that have been levelled at psychographics. The author will now address some of the specific problems (that are in part due to these unsolved broader issues) associated with the key stages of the research process - namely data collection, data analysis and data interpretation and implementation.

² The author has already addressed this issue in Chapter 3. Further debate will therefore not be provided in this Chapter.

4. Data Collection

This section examines the criticisms and problems typically associated with the initial phases of the research process - i.e. data collection.

Specifically the author will consider the following issues:

- 1) Operationalizing psychographics
- 2) Sourcing and Selection of Psychographic variables
- 3) Question/Response Formats
- 4) Use of Home-made versus Standardized Scales
- 5) Unit of Association
- 6) Frame of Reference
- 7) General Considerations

4.1 Operationalizing Psychographics

The literature reveals that a wide variety of different measures are used by researchers to operationalize psychographics.(Refer Chapter 4, Table 4.2).

The literature also reveals that there is very little theory to guide a researcher in knowing which measures to select for specific research problems. Questions remain unanswered as to whether all measures should be included in every psychographic research study or whether psychographic measures should be selected and tailored to the specific problem facing management.

Many researchers of the status of psychographic research consider the lack of a justifiable theory to guide the construction of the studies as one of the MOST crucial problems (Pernica, 1974 p 291; Brody et al, 1968 p 50-573; Wilkie, 1990).

There is some evidence of certain researchers who have attempted to develop a theoretical framework to serve as a guide for the selection of psychographic measures and as justification for the resulting market segments. (Ziff, 1974 p 140; Wind and Green 1974, p 108; Pernica, 1974 p 292; Boote, 1980 p 117)

There are, however, still no definite guidelines of theory upon which the market researcher can rely. Ideally what is required is a hierarchy of effects 'model' that can guide the selection of psychographic measures depending on the specific problem to be addressed. The author has attempted for this thesis to develop such a model to serve as a guide to the operationalization of the psychographic measures to include in the segmentation analysis. (Refer Chapter 4 fig 4.1).

4.2 Selection of Psychographic Variables³

Having decided on the best method of operationalizing psychographics, the researcher has still to decide on which variables to select as indicators/measures of these dimensions.

Psychographics has attracted a fair share of criticism specifically with respect to the:

- 1) Number of products that can be included in the study
 - 2) Relevance of variables to the problem under study
 - 3) Source of Variables for Selection
 - 4) Number of variables
 - 5) Construct Validity
- } Content
} Validity

Each of these problems will be addressed separately by the author.

³ Variables are also referred to as items and/or traits in the literature.

1) Number of Products to Include in the Study

Early psychographic research focused on a number of product categories in one study. However, psychographic research has proven not to be stable across product categories. (Haley, 1985 p 13).

Despite this fact, certain researchers continue to attempt to study a number of products in one survey with obviously questionable results (Dhalla et al, 1976 p 37).

2) Relevance of Psychographic Variables⁴

The researcher has to make a basic decision as to the EXTENT to which psychographic variables should be product or activity specific.

The question that remains unanswered is - what is the relationship between the specific versus the more general psychographic variables?

Certain researchers have proposed that the kind of behaviour one is attempting to predict with the psychographic variables could serve as a framework for distinguishing between the two polar approaches to psychographic research i.e. general versus specific measures (Wind et al, 1974 p 101).

There is, however, NO real conclusion as to what the ideal 'mix' of general and specific measures should be and what problems require which degrees of specificity. (Hustad et al, 1974 p 54-55).

3) Source of Variables for Selection

The procedure followed by most researchers for the selection of psychographic variables is somewhat humble, hazardous and imperfect (Refer Chapter 4, section 13) (Wind, et al, 1974 p 106-107).

⁴ The author has already addressed this issue in Chapter 4 and 5 and will therefore not provide any detail in this section.

Wells and Tigert (1971) for example, sourced the variables for inclusion in their study from 'intuitions, hunches, conversations with friends, reading, head scratching, daydreaming and group or individual narrative interviews. (Wells et al, 1971 p 27-35).

Psychographics has been harshly criticized in this area. Pernica concludes as follows:

'Selection of the various items used for market segmentation seems to reflect little more than subjective hunches. Their scope has not been defined, and there is little evidence of a priori hypotheses as to which of the hundreds of possible variables should relate to consumers' product preferences under study and why.' (Pernica 1974 p 284).

The literature does, however, reveal that regardless of the source of the variables, those variables that are selected still have only a probabilistic relationship to the underlying concept/problem. The relation of a variable to a given factor might VARY considerably depending on the social and environmental setting of the subject. (Wind et al, 1974 p 110).

Based on this, a number of researchers tend to consider a number of variables for each characteristic to be measured - This has commonly been referred to in the literature as a 'fishing expedition' (Wells, 1974 p 346). Other researchers in contrast focus on only a few specific variables. Each of these approaches has attracted criticism which will be discussed in the following section.

4) Number of Variables

*Few Pre-Selected Variables

The Literature reveals that some studies focus on relatively small numbers of variables.

By adopting such an approach though, the researcher runs the risk of OMITTING potentially important explanatory variables.⁵(Evans, 1959 p 340-369).

Furthermore one is not assured that the few variables that are selected are exhaustive of the possible variables that may be important.

In summary, past studies reveal that basing the success of a psychographic study on only a small number of pre-selected variables can be very risky indeed. (Wells, 1974 p 345).

*Large and Varied Set of Independent Variables

Many researchers (Heller, 1968 p 45-57; Pessimier, 1971) employed a wide range of psychographic variables. The advantages of this approach are said to be:

- 1) Increased probability of finding a significant association.
- 2) Some of the association may identify unforeseen relationships.
- 3) Broader coverage and therefore greater detail which is important for providing rich descriptive detail of target consumers. (Wells, 1974 p 346; Wells et al, 1971 p 169).

This approach has, however, also been sharply criticized. Certain critics have insinuated that if one includes enough variables one is eventually going to find some sort of relationship. Furthermore past studies reveal that when larger number of variables are analyzed in detail for relationships, some relationships will emerge that seem to make sense but are actually due only to chance. (Wells, 1974 p 346). To avoid this, the researcher needs to do cross-validation checks. (Einhorn, 1972 p 367-378). As the author has already noted, very few researchers actually do this.

⁵ Much of this criticism was particularly aimed at the attempted use of a standard set personality variables to explain buyer behaviour. In most cases these studies provided little insight into the consumer buying behaviour.(Westfall, 1962 p 34-40).

In summary, most researchers employ a large highly diversified collection of statements that cover as many topics as hypothesized to be relevant to the study. They defend this approach by admitting that in most instances they do not know enough to specify in advance all the variables and hypothesized relationships (Wells, 1974 p 346).

In the author's opinion, the use of a hierarchy of effects model (as per figure 4.1 in Chapter 4) at least partly addresses this problem.

5) Construct Validity

In psychographic research the researcher selects certain measures and construct variables and thereafter designs a measurement instrument that he postulates might measure certain traits. He then makes predictions about certain types of behaviour based on these results.

The literature reveals that very few researchers bother to validate these proposed measures. Lastovicka is one of the few researchers that has addressed this issue. He comments as follows:

'There is an overabundance of lifestyle traits. Concept generation is not the problem. The problem is a lack of effort in examining the validity of the proposed traits. This problem can be resolved with a series of confirmatory-oriented studies examining validity on a factor-by-factor and trait-by-trait basis.' (Lastovicka, 1982 p 129-130).

4.3 Question/Response Format

The researcher having selected the variables, typically utilizes rating scales or ranking procedures.

These require the respondent to assess the importance to them of the item described by the scale. (Boote, 1980 p 26-29; Boote, 1984 p 43; Pitts, 1981 p 109-112). The advantage of such a response format is that it provides flexibility to the research and is easy to use for respondents.

Past studies (Hustad, 1974 p 63) however, have shown that consumer opinions/attitude may not be able to be uncovered by direct questioning.

The literature reveals that researchers have attempted to employ alternative methods to gather the psychographic data.

Examples include:

- 1) Modified Ranking Method (Nelson, 1969)
- 2) Rokeach Value Scales (Rokeach, 1968/69 p 547-559)
- 3) Semantic Differential Formats for Self-Concept Ratings (Grubb, 1968 p 58-63; Ross, 1971 p 38-50)
- 4) Q Sorting of Products to reflect respondents lifestyles (Greeno, 1973 p 63-69).

Each of these again revealed various advantages and disadvantages (Hicks, 1970 p 167-184).

Both Wells(1974 p 344), and Wind and Green (1974 p 116) concluded that psychographic researchers in the future will have to experiment with alternate question formats in order to overcome some of the disadvantages and reduce the potential of response bias. Green et al have attempted one new approach - benefits bundles analysis -to try and more accurately measure the trade-off situation which faces the consumer in reality. (Green et al, 1972 p 35).

Lastovicka (1982) in a review of the validity of lifestyle traits states that the method of data collection still remains a serious problem associated with psychographic research.(Lastovicka, 1982 p 138).

4.4 'Home made' Scales vs Standardized Multi-item Scales

Literature reveals that very little has been published on the reliability of 'home-made' psychographic items and scales.

Those few authors who have addressed this issue (Pessemier and Bruno 1971; Darden et al 1974 p 79-85) have reported that home-made psychographic measures can have reliability high enough to support fairly strong relationships; however in certain situations the reliability of some psychographic measures may be so low as to put a serious limitation on accuracy of 'prediction'. (Wells, 1975 p 238).

The standardized multi-item scale was traditionally favoured by psychometric tradition because properly constructed scales were invariably thought to be more reliable than individual items. (Wells et al, 1971 p 168).

Wells 1974 comments as follows:

'The practice of using limited numbers of preselected, standardized, multi-item scales has much to recommend it. Multi-item scales are apt to be substantially more reliable than individual questions. The authors of many standardized scales provide both norms and validity data. And, if a set of standardized scales is used over and over again, the user learns what types of consumer behaviour are associated with it. This knowledge is of great value in interpreting the outcome of any individual study. (Wells, 1974 p 345).

Standardized scales have however been sharply criticized for their predictive limitations. (Wells, 1975 p 238).

Despite this conclusion many researchers still opt to employ standardized scales in psychographic research (Burnett, 1981; Aggarwal, 1990).

4.5 Unit of Association

Concern has been expressed that too often researchers fail to define WHOSE behaviour is to be studied. (Schiffman, 1991 p 126-127). For example - Is it the individual OR the respondents household?

Wind and Green comment as follows:

'It seems fair to say that many lifestyle studies do NOT carefully match the

unit of association that links lifestyle variables with the types of behaviour under study.' (Wind et al, 1974 p 111-112).

Responses tend as a result to be limited to the respondent being interviewed.

4.6 Frame of Reference

Closely associated with the above problem, is that of the respondents 'self-concept'. The literature reveals that there is some uncertainty as to which 'self' the respondent is referring to. Specifically do the subjects respond in terms of real self, ideal self, self as they believe others see them or self as they would like to be perceived by others. (Wind et al, 1974 p 113).

The author could not find any literature evidence to suggest that this problem had been further investigated and therefore concludes that the problem still needs to be given attention.

4.7 General Considerations

A number of other aspects with regards to data collection in a psychographic study have attracted criticism:

1) Length of Questionnaire

Researchers are critically asking whether one can expect reliable and valid responses from a questionnaire that could take an hour or longer to complete. Furthermore, this may lead to both boredom and fatigue.

2) Method of Administration

Which method is the most appropriate for data collection? Mail vs Personal interview etc.

Are there not other alternatives that may enhance quality of data collection?

Lastovicka states that a serious problem with psychographic trait measurement is the sole reliance on self report data. (Lastovicka, 1982 p 138). Work by Szybillo, Binstock and Buchanan on lifestyle activity

questions is one of the few published studies that attempts to compare self report and non-self report methods.(Szybillo, 1979 p 74-79).

4.8 Summary - Data Collection

In the 'area' of data collection, psychographics has attracted a fair share of criticism.

This has pertained mainly to the lack of theory guiding the selection of measures and variables (general and specific) to include in a psychographic study. Past studies reveal a multitude of different approaches with respect to number of variables, sourcing of variables and the use of standard vs home-made scales.

In addition, very few attempts have been made to investigate these measures for reliability and validity.

5. Data Analysis

Analysis of psychographic data is usually divided into two distinct phases.

- 1) Classification and Summary of the data
- 2) Establishing relationships between psychographic responses and other variables.

5.1 Classification and Summary of the data

Most psychographic segmentation studies involve large numbers of variables and are usually administered to fairly large samples - The result is an 'immense data file often too cumbersome to manage'. (Wells, 1974 p 348).

As a result, most psychographic researchers traditionally employed factor analysis to reduce the data file to a more manageable size. The factor analysis typically revealed a smaller number of 'so-called' interpretable factors. Individuals were then typed according to their factor scores. (Wind et al, p 118).

There is literature evidence, however that highlights a number of problems associated with factor analysis. (Wells 1974 p 349)

Similar criticism has also been levelled at canonical analysis which has also been used in the past to reduce the data file. (Frank, 1972 p 9-13; Alpert, 1972 p 89-92).

A few researchers have also attempted higher order factor analysis - a factoring of the correlations of the first order factors - as a hierarchial grouping method. This method has, however, received little acceptance amongst the marketing community. (Johnson, 1967 p 241-254).

5.2 Establishing Relationships between Psychographic responses and other Variables

The literature reveals that psychographic data can be used as either the basis or descriptor variable set in a segmentation study (Refer Chapters 2 and 3). In both of these cases the researcher is interested in determining their association with other behavioral and demographic variables.

5.2.1 Profiling procedures⁶

Traditionally the association between variables was examined by direct cross tabulation on all variables or on any variables that 'appeared' to have an association. (Wells, 1974 p 348). Some researchers, instead of attempting data reduction elected to cross tabulate the specific variable of interest (e.g. volume of use) with all psychographic variables, one at a time. (Tigert, 1974 p 173-201).

If many relationships were to be considered, Plummer proposed the use of a correlation matrix and then reviewed only those cross tabulations which were statistical significant. (Plummer, 1971 p 34-41).

The literature reveals that there are disadvantages to adopting simple cross tabulations.

- 1) Some significant and potentially interesting relationships may be ignored. (Wells et al, 1971 p 170).
- 2) Sub-segments may contain differing psychographic profiles and these will be ignored.(Hustad et al, 1974 p 58).
- 3) There is the potential to over-generalize and make assumptions on unsubstantiated or over-generalized evidence.(Wells, 1974 p 351).

As a result researchers are tending to make greater use of multivariate statistical procedures. Kinnear and Taylor (1976 p 424) state that since

⁶ In this study, it is in this specific area of application that the contribution of the psychographic variables will be assessed.

these multivariate procedures allow the researcher to examine a number of variables simultaneously, they are therefore advantageous to apply. This view is also supported by Sharpe and Peterson (1972) who conducted a multivariate analysis on psychographic variables and concluded as follows:

'For optimum results in a study of psychographic- demographic relationships, a much richer interpretation is possible through use of multivariate techniques than through the use of bi-variate methods'. (Sharpe et al, 1977 p 379).

Psychographic researchers obviously need to continue to experiment with the multivariate techniques in order to overcome some of the disadvantages associated with simple cross tabulation. They also, however, need to be aware of the need for further validation on multivariate procedures.

5.2.2 Segmentation Procedures⁷

A review of past psychographic studies reveals that segmentation has usually been accomplished by Q factor analysis or by some variety of cluster analysis. (Frank et al, 1968 p 83-74; Schlinger, 1969 p 53-60).

These techniques are used to divide consumers into segments based on a variety of psychographic characteristics. In using this approach, researchers have assumed that such psychographic characteristics relate to consumer buying behaviour and thus offer an effective basis for segmented brand positioning. (Pernica, 1974 p 280).

Boote summarizes the methodology as follows:

'The aggregated scale/rank data are subjected to a clustering or correlational algorithm to partition the sample of respondents into reasonably homogeneous groups with regards to attitudes, beliefs, values or interests while at the same time maximizing the

⁷ The debate outlined in section 5.2.2 - 5.2.4 is for information and completeness only as this procedure will not be employed by the author in this study.

differences between the groups'. (Boote, 1984 p 43).

The techniques of Q (Inverse) factor analysis and cluster analysis therefore provided market researchers with a powerful statistical technique for segmenting markets. However, the literature reveals that the use of cluster and Q factor analysis for segmenting markets has frequently been criticised and viewed with scepticism.(Punj et al , 1983 p 134).

5.2.3. Problems and Criticism of Psychographic Segmentation Procedures

The literature reveals that there are five problem areas typically associated with psychographic (basis) segmentation studies:

- 1) Relationships of Segments to Product/Brand Preference and Usage.
- 2) Structural Reliability of Segments.
- 3) Validity of Segments.
- 4) Size of the Segments
- 5) Segment Interrelationship

1) Relationships of Segments to Product/Brand Preference and Usage

Critics state that many researchers proceed with segmentation studies as if the sole purpose is to cut the market up according to any demonstrable differences. However the literature reveals that unless these 'differences' manifest themselves in brand product or purchase; the market segments have little value for marketing and advertising strategy. (Pernica, 1974 p 281).

Punj and Stewart comment as follows:

'Classification is only useful if it assists in furthering an understanding of the phenomena of interest. (Punj et al, 1983 p 145).

In many cases users of psychographic segmentation studies have ignored this important prerequisite.

The author will address this issue of usefulness (predictive validity) further

in section 6.4.

2) Structural Reliability of Segments

Cluster solutions for psychographic studies have, in the past, yielded non-reliable solutions.(Arnold, 1974). Specifically it has been shown that when another sample is 'measured' with the same psychographic instrument, the results of the cluster solution are often very different.(Wells, 1974 p 352; Wells, 1975 p 204).

Kinnear and Taylor (1976 p 424) identified psychographic segments through Q factor analysis and several clustering procedures. Comparing the results with a past study showed that there was little agreement among the clusters in terms of size or composition. Split half samples with the same clustering procedure also yielded very unstable results.

They concluded that 'A Marketer doing only one clustering of his subjects easily could be fooled' (Kinnear et al, 1976 p 424). There is published evidence to suggest strongly that psychographic segments developed through Q analysis and clustering procedures are NOT always structurally reliable.(Appel et al, 1969 ; Johnson, 1974 ; Wells, 1975).

3) Validity of Segments

As was detailed under point 2, segments (derived by Q factor/cluster analysis) have been found to be non-reliable.

Even if the segments do, however, prove to be reliable the question still remains: How accurately do the descriptions fit each member of the group? How accurately do they describe the members? Do members of the segments really differ from other consumers in the specified ways?

Questions pertaining to the 'reality' of psychographic segments still remain largely unanswered. In many instances, this issue is not even addressed.

(Wells, 1975 p 242; Lastovicka, 1982 p 137-138).

4) Size of the Segments

Market researchers employing cluster analysis have found it difficult to quantify and to determine the size of the resultant segments (Wells, 1974 p 352).

Cattelli (1978) has suggested that clusters are 'fuzzy constructs'.

Punj comments as follows:

'Also confronting the potential user of cluster analysis is the problem of cluster definition. There are currently no clear guidelines for determining the boundaries of clusters or deciding when observations should be included in one cluster or another. The criterion for admission to a cluster is rather arbitrary. There are no well-established rules for the definition of a cluster. The preferred definition of a cluster seems to vary with the discipline and purpose of the researcher. (Punj et al, 1983 p 136).

5) Segment Interrelationship

The procedure of using cluster analysis for market segmentation has been criticized in the literature for ignoring INTERRELATIONSHIPS between the segments (Pernica, 1974 ; Boote, 1984). The literature reveals that psychographic studies usually present each of the psychographic segments as an isolated group; little attention has been paid to the relationship and overlap between the groups. Pernica states that too often researchers presume upfront that positioning against one or the other segments is the best strategy for any brand in the market. (Pernica, 1974 p 281). Furthermore, Boote states that possible inter-actions between consumers values and beliefs, the psychographic segments and ownership and/or purchase of various products or media may be ignored. (Boote, 1984 p 47).

5.2.4 Summary of Segmentation Procedure Problems

Evidence presented by the author in sections 5.2.2 and 5.2.3 highlighted

that psychographic variables have attracted much criticism when used as the basis for a market segmentation study. The procedure employed is typically Q Factor or Cluster Analysis. Critics suggest that too often researchers use these techniques to just arbitrarily cut up the market. The result is market segments that have often proved to not be reliable or valid. In many instances the segments have shown almost NO relationship with consumers product/brand preferences and minor differences in product/brand usage.

Certain psychographic researchers therefore argue that using psychographics as a basis for segmentation is useless, a waste of time and often misleading (Engel et al 1990).

The author however intends in this thesis to use psychographic measures to profile market segments. Much of the criticisms presented in this chapter are therefore not directly applicable to this study.

Furthermore, it is the author's opinion that if psychographic measures are to be used in a market segmentation study as either basis or descriptor variables, greater emphasis should be placed on establishing what **MOTIVATES** the consumer in the purchase of the product. The purpose of including psychographic variables in a segmentation study should therefore not just be to cut up the market or profile the market segments on any demonstrable differences between consumers. Emphasis should rather be placed on developing a framework that establishes the hierarchy of effects on the buying behaviour under study. This will result in a more disciplined approach to the construction and selection of variables for a psychographic segmentation study.

Based on the findings in the literature, the author has attempted to develop such a framework for this study. (Refer to the model which was presented in Chapter 4, fig 4.1). The model is a hypothetical one, designed to represent those psychographic factors that are thought to impact upon the purchase and consumption behaviour under investigation.

6. Data Interpretation and Implementation

6.1 Interpretation

Once the data analysis is complete, the researcher has still to integrate the psychographic data into a coherent whole and then draw meaningful conclusions based on his interpretation of the findings.

Wells comments as follows: (1974, p 354)

'The interpreter must organize a large number of separate bits of information, any one of which may have several plausible implications. He must seek to understand what the data say, all the while being aware of their inadequacies and limitations. He must weigh the evidence, reflect on alternative hypotheses, and come to some final set of decisions.'

The literature also reveals that psychographic analysis requires the skills of a trained researcher.

Simmons emphasizes the importance of this:

'...psychographic research requires an extremely competent analyst who is as well versed in research design and in statistical techniques as he is in imagination in psychological matters. Otherwise, the complexities surrounding the design, execution, analysis, and interpretation of psychographic research run an uncomfortable risk of being misleading despite conscientious efforts in the execution. (Simmons, 1971 p 215-219).

Critics have argued that psychographics in this regard is no different to motivation research. The data requires extensive interpretation (which is subject to bias) in order for it to be usefully applied to marketing problems.

In interpreting psychographic data researchers should be aware that consumers may purchase products to:

1) Complement their lifestyles

OR

2) Supplement their lifestyles (i.e. consumers use products/brands to

overcome deficiencies or to align themselves with aspirations).
(Westfall, 1962 p 34-40)

In the case of the former, relatively few problems would be encountered in translating psychographic findings to actionable recommendations; however, in the case of the latter, the literature indicates that research findings may not properly identify buying motives unless appropriate precautions are taken in the design of the study. (Hustad et al, 1974 p 59).

Based on the authors review of the literature on psychographics, little evidence could be found of researchers taken this into account and/or addressing this issue.

6.2 Management Considerations

Few studies have detailed the time and expense involved in a typical psychographic study. However, the typical quantity of data collected and the usually large samples employed would indicate that both the costs are high and time taken to complete, extensive.

From a practical point of view , this poses obvious limitations as to the acceptance and usefulness of psychographics. (Hawkins et al, 1992 p 422).

In addition, certain companies that have sponsored psychographic studies have found difficulties in gaining support for and implementing the findings. (Hustad et al, 1974 p 64).

6.3 Product 'Types'⁸

Psychographic research has been said to be inappropriate for some categories of products and, furthermore, it has been said by certain researchers that it is only in certain situations that psychographic research should be employed (Struse, 1979 p 17).

⁸ The author has addressed this issue in greater detail in Chapter 5, section 6.

Other critics, however, argue that psychographic research can bring 'fresh creative ideas and meaningful insights to the marketing even of parity products' (Marketing News 1983).

The literature provides no conclusive evidence on this debate. Haley, however, is one of the few researchers who has attempted to draw some conclusions in this regard. In 1984 he tested 3 psychographic measures as alternate **BASIS** variables for market segmentation. The results are presented in Table 6.2

Table 6.2 Comparison of 3 different Segmentation Bases over 37 Different Studies.

	No.of Times Measure Discriminated Best
Benefits	19
Beliefs	15
Lifestyles	3
TOTAL NO.OF STUDIES ANALYZED	37

Source: Haley, Russel I. 'Benefit Segmentation - 20 years later', Journal of Consumer Marketing 1(2) 1984 p 5-13

Haley found that benefits and category beliefs were the most useful bases on which to segment the market in many different situations. Lifestyles variables in contrast, were more appropriate for those categories in which people expressed who they were by the brands they chose (For example Liquor or Cigarettes) (Haley, 1985, p 13). These results agree with other studies. (Wells, 1981)

The author, while not wanting to detract from these conclusions, believes that is important to interpret the results based on:

- (1) The specific researchers DEFINITION (both conceptual and operational) of psychographics and/or lifestyles.
- (2) The **ROLE** the psychographic measures play in the segmentation procedure (i.e. **BASIS** variables vs **DESCRIPTOR** variables).

6.4 Predictive Validity

In psychometrics, the validity of a test is established by its ability to predict the behaviour of separate individuals. (Wells, 1975 p 242).

The evidence on predictive validity shows that psychographic variables seldom account for large portions of the variances of individual behaviour.

This is thought to be due to several reasons:

1) Misuse of Standard Personality Inventory Tests

There have been a number of attempts by past researchers to predict consumer behaviour from personality test scores without any specific theory or hypothesis linking the two concepts. '... in most cases, no a priori thought is directed to how, or especially why, personality should or should not be related to that aspect of consumer behaviour being studied'

The results have led to low prediction at best that often had little or no utility to marketers. (Koponen, 1960 p 6-12; Evans, 1959 p 340-369).

Boote comments as follows:

'Most standardized psychological tests are not appropriate for analysing market response'. (Boote, 1980 p 116).

2) Lack of Solid Underlying Relationship Between Psychographic Variables and Choice of a Specific Product or Brand.

Past studies have shown that there can be a large gap between psychographic measures and product/brand specific behaviour (Wortzel, 1983; Adams, 1982; Wells, 1975).

The literature reveals that the more general measures have performed particularly poorly in predicting product/ brand behaviour (Westfall, 1962 p 34-40; Peterson, 1972 p 17-20; Meyers, 1967 p 73-81.) When the psychographic measures have been relevant to the

behaviour being studied the predictive ability has improved somewhat (Birdwell, 1968 p 76-88; Carman, 1970 p 67-76; Darden, 1972 p 324-328; Plummer, 1971 p 25-41).

Furthermore, when relevant dimensions have been linked together in multiple regression the results have proved the most significant (Ahmed, 1972 p 437-438; Fry, 1971 p 298-304; King et al, 1973; Pessemer et al, 1967; Wilson, 1966 p 305-347).

The author wishes, however, also to draw attention to the fact that when the measures have been so specific to the behaviour under study, the relationships identified have been criticised for being redundant. Critics have stated that findings of this sort are not useful to marketing managements as they fail to reveal anything NEW or unexpected. (Wells, 1975 p 244).

Despite the fact that psychographic variables have been criticised for their lack of ability to predict consumer behaviour there is evidence to suggest that in certain instances psychographic variables are capable of identifying substantial differences between groups of consumers and that these differences are often larger than the differences produced by the standard demographic profile. (Wilson et al, 1966 p 305 - 347; Good et al, 1970; King et al, 1973; Nelson et al, 1969; Burnett, 1981; Burger, 1972 p 219-222).

As was noted by the author in section 5.2.4 of the Chapter, researchers in the future will need to develop some sort of model of 'hierarchy of effects' on buying behaviour in order to address these criticisms of predictive validity. At least by developing such a model it will guide the selection of variables that are hypothesized to be relevant to the problem under study.

Boote recognizes the need for such a model and comments as follows:

'Without being able to specify how and why different variables combine to describe behaviour in the market place, it is just a matter of luck that a certain set of variables will have any predictive power'. (Boote, 1980 p 116.)

The author has proposed such a model for this study. The reader's attention is drawn to Chapter 4, fig 4.1 which outlines the hypothetical model adopted by the author for this study to guide the selection of psychographic variables thought to impact upon the consumer behaviour under investigation.

SUMMARY

The literature reveals that psychographic segmentation studies have been widely criticised in the literature. The major criticisms that have been levelled at psychographic research are that the results may not always be reliable and valid and that the research is not always guided by a sound theoretical foundation. Furthermore critics argue that the results of a psychographic study often fail to relate to the product under study and are therefore useless for predicting product or brand behaviour.

The criticisms of reliability and validity were however mainly levelled at psychographics when used as the basis variable(s) in a segmentation study. Regardless however of whether psychographic variables are used to form or describe the segments, the issues of reliability and validity should be addressed. Few researchers attempt to do this.

Psychographic researchers have also been sharply criticised on their approach to segmentation studies. As a result, they tend to be subjectively designed and applied with a 'shotgun approach'. This is in part due to the lack of a conceptual framework to guide psychographic studies compounded by the lack of a universally accepted definition of psychographics.

Based on these criticisms it was concluded that psychographic segmentation studies should be guided by a hypothetical model that covers how the motivational process works and which variables impact upon the particular buying behaviour under study.

Based on the findings in the literature the author has developed such a model for this thesis. (Refer Chapter 4, fig 4.1). The model will be used to guide the selection of psychographic variables to be included in the segmentation study. This will be further detailed by the author in the following Chapter.

In Chapters 3 to 6 the author has reviewed the literature surrounding market segmentation and psychographics. Based on the findings in the literature review several hypothesis that require testing in the empirical research phase have been developed by the author. Chapter 7 outlines the hypotheses to be tested in this study and the methodology to be employed in the empirical research.

CHAPTER SEVEN

OUTLINE

Chapter 7 is divided into 2 parts.

In part I the objectives of the study will be summarized and restated as per Chapter 2. Based on these objectives and the findings in the literature review (Chapters 3-6) the author will outline the hypotheses to be tested in this study.

In part II the author will outline the methodology employed to gather the empirical data required to satisfy the objectives of the study.

PART I : Statement of the Objectives of the Research and Hypotheses to be Tested.

1. Objectives of the Research

1.1 Main Objective

To critically assess the contribution of psychographic variables in the profiling stage of a market segmentation study of the South African fresh mushroom market.

1.2 Sub Objectives

To develop a conceptual and operational definition of psychographics based on a literature review of the subject.

To segment the fresh mushroom market on the basis of volume of use into 2 segments - a group of heavy users and a group of light users.

To identify significant demographic, geographic and behavioural descriptor variables that distinguish between heavy users and light users of fresh mushrooms.

To identify significant psychographic descriptor variables that in addition to the demographic, geographic and behavioural variables distinguish between heavy users and light users of fresh mushrooms.

To evaluate the contribution of the psychographic descriptor variables in the identification and profiling of the resultant market segments.

2. Hypotheses

2.1 Main Hypothesis

Based on the literature, it is apparent that not all market researchers are convinced that there are benefits to be reaped from including psychographics in a market segmentation study.

The critics argue that psychographic segmentation is often unreliable or invalid particularly when psychographics are used as the basis variables for a segmentation study. As the author has stressed, however, this thesis does not intend to evaluate the contribution of psychographic measures as basis variables.

The objectives of this thesis is to critically assess the contribution of psychographic variables in the profiling of market segments.

However, even in their role as descriptor variables psychographics has attracted criticism. Critics argue that the description of the segments are of little use, are often unrelated to the purchase of the product and not easily quantified.

Robinson, 1975 p 240 summarizes as follows:

'If you're looking for reliable predictor variables, correlates of effects or covariates that have diagnostic and classificatory power, don't expect too much.'

Those who support the inclusion of psychographics in a market segmentation study argue that the psychographic variables may help to develop improved multi-dimensional views of key target segments, uncover new product opportunities, obtain better product positioning, develop improved advertising communications based on a more 'lifelike' portrait of the target consumers and generally improve overall marketing strategies (Plummer, 1974 p 36-37; Wells, 1974).

Based on the unresolved conflict in the literature, the author intends to assess the contribution of the psychographic variables in their role as descriptor variables in

the profiling of market segments.

In Chapter 3, Section 7.1, the literature revealed that the **OBJECTIVE** of **DESCRIPTOR VARIABLES** was to **IDENTIFY** descriptive characteristics that were **HIGHLY CORRELATED** to the segmentation **BASIS VARIABLE** and based on these descriptive characteristics, **DESCRIBE** the **DISTINGUISHING** characteristics of the market segments.

The main hypothesis to be tested in this thesis is as follows:

H₁ Psychographic measures will yield significant descriptor variables in the profiling stage of a market segmentation study that are useful for identifying and describing heavy users versus light users of fresh mushrooms.

2.2 Sub-Hypothesis

2.2.1 Psychographics vs Demographics

The literature reveals that one of the reasons for psychographic's rise in popularity in the seventies and eighties was that it promised the marketer something MORE than 'pure demographics'. Many researchers recognized that important demographic distinctions often did not exist in many product categories.

The literature reveals that even when important demographic distinctions were established between segments, marketers still found it difficult to address the **TARGET** segments unless they knew WHY the distinctions existed (Ziff, 1971 p 3). Marketers wanting to motivate consumers to purchase their products or brands needed to know more than simply **WHO** their customers were. Marketers increasingly recognized that they needed to know **WHY** consumers behaved as they did, HOW consumers thought, WHAT their values and beliefs were, etc.

The supporters of psychographics, therefore, argued that much conventional market segmentation research, particularly that including only the 'observed' measures of demographic, geographic and behavioral variables, was inadequate. Demographics were said to tell only part of the story.

It is the hypothesis of this thesis that, if psychographic measures are included together with demographic, geographic and behavioural variables, that the psychographic variables could make important distinctions between the segments not provided for by the 'non psychographic' variables.

H_i Psychographic variables in conjunction with geographic, demographic and behavioural variables will result in better prediction and description of users of fresh mushrooms than geographic, demographic and behavioural variables alone.

2.2.2 Usage Segmentation

Added to the above debate, the author highlighted in Chapter 3 section 4 that segmentation based on volume of use was often criticised for failing to produce segments that markers could easily identify.

The author hypothesizes that, in the context of this thesis, significant psychographic variables will make a more meaningful contribution than demographic, geographic and behavioral variables in both identifying and profiling the two usage groups. By including psychographic variables in the study, the author therefore hypothesizes that it will allow for easier and more meaningful identification of target segments than if only demographic, geographic and behavioral variables were included.

H_{ii} The majority of variation in the volume of consumption of fresh mushrooms is unaccounted for by the inclusion of geographic, demographic and behavioural variables only in the segmentation study.

H_{iii} Psychographic variables do account for differences in volume of consumption of fresh mushrooms not accounted for by demographic, geographic and behavioral variables.

2.2.3 Total Unexplained Variance

Certain critics do acknowledge that psychographics may contribute something 'more' than demographics. They, however, maintain that the addition of psychographic variables does NOT help to significantly reduce the total unexplained variance in the consumer behaviour under study (Bass et al, 1968). There are published studies that conclude that the addition of psychographic variables increases the explained variance somewhat, but state that even in those circumstances the unexplained variances remain high (Plessimier et al, 1967 p 349-355; Tigert, 1966 p 219).

It is the hypothesis of this thesis that if psychographics is defined and operationalised with relevant measures whose selection is guided by some sort of theoretical model as is the case in this thesis, (Refer Chapter 4, fig 4.1) then the contribution of psychographic variables can greatly increase the total explained variance in the consumer behaviour under study.

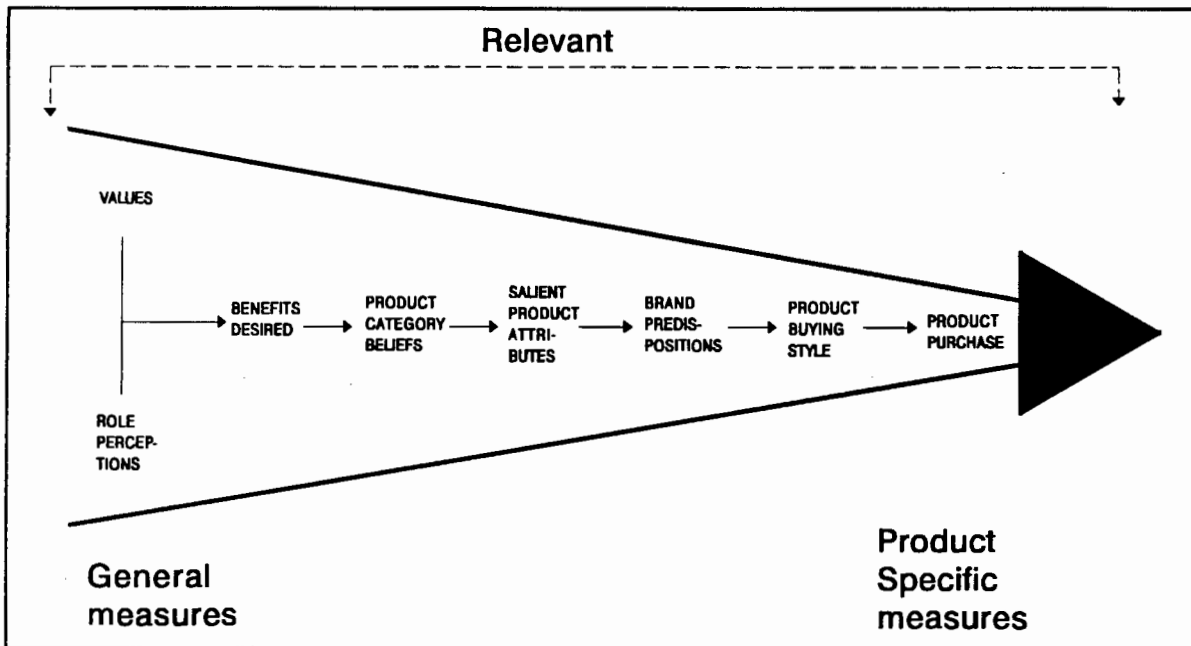
H_{iv} The addition of psychographic variables to the analysis will increase the TOTAL explained variance significantly.

2.2.4 General vs Specific Measures

The author concluded from the literature review (Chapters 4 and 6) that any psychographic variables included in a study should be RELEVANT to the a problem at hand. Specifically, for a study on fresh mushrooms, the statements should focus directly on the product category and any surrounding activity(s) related to the category - viz food planning and preparation, food selection.

Furthermore, the literature revealed that these statements, although all relevant, could range from general to specific as reflected in Figure 7.1:

Fig.7.1 General-Specificity Continuum for Six Psychographic Measures for Food Product



The literature, however, does not reveal what the RELATIONSHIP is between the more general measures and specific measures. Furthermore, little appears to be known about the IDEAL COMBINATION of general and specific measures.

Hustad and Pessimier (1974 p 62) comment as follows:

'There is considerable disagreement on what is apt to constitute the most useful mix but there is general agreement that the criterion should be relevance.'

Based on the model developed in chapter 4, fig 4.1, it is the hypothesis of this thesis that all levels of measurements - that is - both general and specific should be included in this study, providing that all items to be tested are relevant to the product under investigation.

H_v Both general and product specific measures will yield variables that are significant in distinguishing heavy users of mushrooms from light users.

In addition to the debate surrounding the 'ideal mix' of general vs specific measures, certain researchers believe that the selection of the 'mix' depends on the product/product category under investigation.

Wind and Green, 1974 for example, state that general psychographic measures may be used to discriminate between users and non-users and that - 'such variables are particularly useful when products are not differentiated in the minds of the consumers or when the product is discretionary.'

Other researchers hypothesize that the more general variables are likely to have a less important role if the product under investigation is a low involvement product. In these circumstances, they believe that the more proximate measures (eg. benefits/category beliefs) are more likely to do a better job of predicting specific purchase choices (Haley, 1984).

The product category under investigation in this study is fresh mushrooms. The author believes that this is a relatively low-involvement type of product. Based on this belief and the findings in the literature review this thesis hypothesizes that the product specific psychographic measures will provide the significant descriptor variables in the profiling stage of the segmentation study.

H_v Those measures that are product specific will provide the significant variables that are most useful in distinguishing heavy users of mushrooms from light users.

2.2.5 Number of Items/Statements

Psychographic research generally requires a large number of statements to be generated to measure each of the specific constructs (Haley, 1985).

Specifically in this study, the author has proposed that psychographics be operationalized through 6 measures (Refer Chapter 4). These measures in turn must be operationalised through a number of items\statements that are hypothesized to be relevant to the problem at hand.¹

Studies usually include from 50-300 items/statements and sometimes more. Psychographic research has even been termed somewhat of a fishing expedition. Moreover, it has been said that if enough measures are included eventually one or two will prove to be significant.

Critics therefore argue that of the 100 or more psychographic statements that are typically included in a study only very few usually prove to be significant.

Robinson, 1975 p 240, comments as follows:

'More often than not, less than a tenth of the psychographic and lifestyle statements that one first employs in a project will prove to have predictive or explanatory efficacy'.

The author has in this study included only those measures hypothesized to be relevant to the problem at hand. Furthermore, the selection of measures has been guided by a model and the selection of statements will be guided by a detailed exploratory research phase. Based on these factors and based on Robinson's comment (1975), this thesis hypothesizes that:

H_{vii} Of the total number of psychographic statements to be employed in this study more than 10% will prove to be significant in distinguishing between heavy users and light users of mushrooms.

¹ The methodology employed by the author in this study will be detailed in part II of this chapter.

PART II

METHODOLOGY

INTRODUCTION

The objective of Part II of Chapter 7 is to outline the methodology employed by the author to gather the EMPIRICAL data required for this thesis.

The main objective of this thesis is to critically assess the contribution of psychographic variables in the profiling stage of a market segmentation study. This required the author to undertake empirical research and implement a segmentation analysis of the fresh mushroom market.

The procedure for implementing empirical research typically follows a sequence of steps called the research process (Refer Figure 7.2)

Figure 7.2 Stages in Research Process

1.	Formulate Problem
2.	Determine the Research Design
3.	Design Data Collection Method and Form
4.	Design Sample and Collect Data
5.	Analyze and Interpret the Data
6.	Prepare the Research Report

Source:Churchill 1991, p 69.

The author, in designing the segmentation research study, broadly followed this procedure. Step I - the formulation of the problem - was dealt with by the author in Chapter 2. In formulating the problem, however, it was noted by the author that the first sub-objective of this study would be to develop a conceptual and operational definition of psychographics based on the findings in the literature review. (Refer Chapter 2, section 1.2.1).

As the definition and construction of the psychographic measures is crucial to the empirical phase of this research, (Steps 2-4) a summary of the findings and the conceptual and operational approach to be adopted for this study will be detailed first in section I.

Section 2 will outline the research design (Step 2) for this study. It will detail that two phases of empirical research are required:

- (1) Exploratory Phase to be used as input to phase 2,
- (2) Descriptive Phase.

The exploratory phase was crucial to this study particularly as the psychographic items for inclusion in the data collection form were generated and selected in this phase. This phase will, therefore, be discussed separately in section 3.

The descriptive phase of the research is detailed in section 4. This descriptive phase required quantitative data to be collected from a representative sample of the target population. Specific procedures adopted by the author with respect to the method of data collection (Step 3 in the research process) and sample design (Step 4 in the research process) are respectively detailed in Sections 4.1 and 4.2 of this chapter.

The discussion pertaining to the design of the questionnaire is covered by the author in three separate sections based on the type of data to be collected and its measurability. Specifically, in Section 4.3 the author outlines the content of the questionnaire for the demographic, geographic and behavioral measures - the more easily 'observed measures'.

In order to obtain the information on the psychographic variables attitudinal research was required. In Section 4.4 the author will outline the development of the attitudinal measurement tool for this study and section 4.5 will describe the items selected as 'measures' for the six psychographic constructs. The final questionnaire used for the study is tabled in Appendix B.

Finally, in Section 5 of this chapter, the author will outline the steps taken to edit and code the data and the statistical techniques employed in the analysis of the data.

1. A Conceptual and Operational Definition of Psychographics

In Chapter 2, the author highlighted that sub-objective I of this study, was to develop a conceptual and operational definition of psychographics based on a review of the literature.

In Chapter 4 the author highlighted the wide variety of approaches and lack of consensus amongst market researchers as to the definition and measurement of psychographics.

In order to address this confusion and lack of standardization in approach to psychographics, the author sought to differentiate lifestyle research from psychographic research and limit the domain of psychographics to the study of consumers' psychological processes. (Refer Chapter 4, section 9) (Wells, 1975 p 227).

The following 3 level conceptual definition of psychographics was, therefore, accepted for this study. (Refer Chapter 4, section 10).

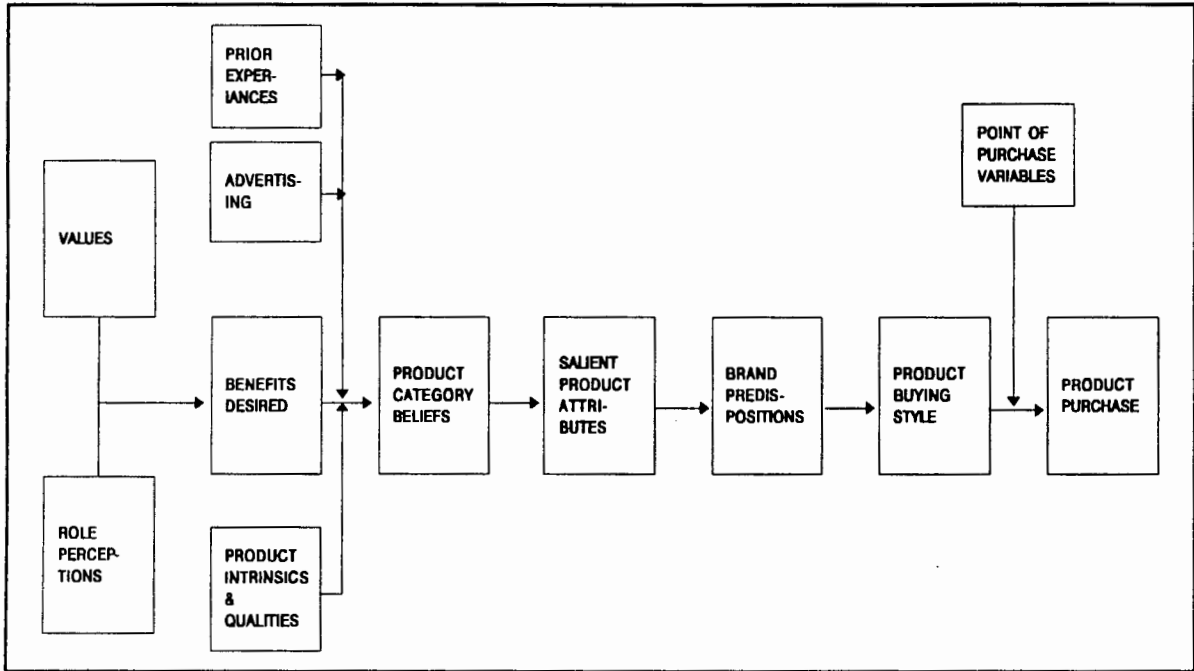
- Generally, psychographics may be viewed as the practical application of the behavioral and social sciences to marketing.
- More specifically, psychographics is a quantitative research procedure that is indicated when demographic, socioeconomic, and user/nonuser analyses are not sufficient to explain and predict consumer behaviour.
- Most specifically, psychographics seeks to describe the human characteristics of consumers that may have bearing on their response to products, packaging, advertising, and public relations efforts. Such variables may span a spectrum from self-concept and life-style to attitudes, interests, and opinions, as well as perceptions of

product attributes. (Demby, 1974 p 13).

As a result of the wide variety of approaches to the definition of psychographics, the literature revealed that there were a wide variety of different measures typically included in psychographic research. Furthermore, it was revealed that there was little theoretical or empirical evidence to guide the construction of a psychographic research instrument.

The author identified a few models that had attempted to develop a theoretical framework to guide the selection of psychographic measures. The author drew on these various approaches and formulated a hypothetical model specifically for this study. (Refer Chapter 4, section 11).

Figure 7.3 Hypothesized Model of Hierarchy of effects on product purchase behaviour for Fresh Mushrooms



This hypothetical model (as shown in fig 7.3) depicts the possible hierarchy of effects on consumer behaviour with respect to the purchase of fresh mushrooms.

As the author noted in Chapter 4, section 11, the purpose of the model is to guide the selection of measures thought to be pertinent and necessary to include as psychographic measures and therefore hypothesized as having an impact on the product choice under investigation.

Based on this model, the author operationally defined psychographics for the purpose of this study to include the following 6 measures (Refer Chapter 4, section 14):

- 1) Value Orientations
- 2) Role Perceptions
- 3) Benefits Desired in Product
- 4) Category Beliefs / Perceptions with respect to Product Category
- 5) Salient Product Attribute Preferences and Brand Predispositions

6) Product Buying Style

It was hypothesized by the author that all these psychographic measures could potentially impact upon the consumer behaviour under study and therefore the rationale for including them all in the study.

Furthermore, all 6 measures were defined in terms of their relevance to the study (Refer Chapter 4, section 12). Specifically, each of the psychographic measures were to be operationalized through statements specific to the product and surrounding activity under investigation. In the context of this thesis, therefore, by definition, measures 3-6 were related directly to fresh mushrooms while measures 1 and 2 were related to home food selection and preparation. This is depicted by the continuum in figure 7.3 showing the general measures on the left hand side and product specific measures on the right hand side.

It is based on this conceptual and operational definition that the author will assess the contribution of psychographic measures as descriptor variables in a market segmentation study.

Sub-objective I(a conceptual and operational definition of psychographics) was therefore able to be met through the literature review. However in order to critically evaluate the usefulness of psychographics, the author was required to undertake further empirical research, the methodology of which will be outlined in the remainder of this chapter.

2. The Research Design

The research design is the framework for a study that guides the collection and analysis of the data.

There are 2 basic types of research design that were appropriate for this study.

1) Exploratory Research - Phase I

2) Descriptive Research - Phase II

These will be discussed separately in sections 3 and 4.

3. Phase I - Exploratory Research

The objective of the exploratory research phase was to gain a better understanding and insight into the problem at hand in order to proceed to Phase II - descriptive research.

The empirical research problem required 3 'types' of data to be collected in the exploratory phase.

3.1 Types of Information Sought

3.1.1 Product Category Information:

- Industry\competitors in the fresh mushroom market
- Market shares and growth trends in the South African mushroom market
- Current marketing strategies adopted by Tongaat Mushrooms and competitors

3.1.2 User Behaviour Information with respect to Fresh Mushrooms

- Purchase and consumption habits of fresh mushroom users
- Category perceptions\benefits\attitudes towards fresh mushrooms
- Demographics of current users of fresh mushrooms
- Brand awareness and brand usage of fresh mushrooms

3.1.3 Food Purchase and Preparation:

- Attitudes towards home cooking
- Importance\values of home cooking
- Factors influencing home cooking

In order to obtain the above information it was necessary to use both secondary and primary data sources.

3.2 Secondary Data Sources Used:

The author made use of the following published literature:

Past Research conducted by Tongaat Mushrooms (Research Surveys June 1990).
Documents as supplied by Tongaat Mushrooms (Annual Marketing Plans and Sales records).

Professional Journals (Eg. Journal of Advertising)

General Business Publications (Eg. Fortune)

Industry Publications (Eg. Mushroom News)

The author undertook an extensive literature review to gather the information as detailed in 3.1. The information obtained from the secondary data sources was used by the author to guide the gathering of further exploratory information from primary sources.

3.3 Primary Data Sources Used

A review of the literature revealed that depth interviews and focus group interviews were appropriate techniques to use for gathering information when conducting exploratory research (Churchill, 1987 p 230-236; Fern, 1982 p 1-13). The author acknowledges that both of these methods have a number of limitations. (Bailar et al, 1977 p 337-343; McKenzie, 1977 p 330-331).

The fact, however, that these methods were to be used to generate information to help structure the quantitative research instrument rather than for detailed examination of the facts means that the techniques could be used by the researcher despite their noted limitations. (Fern, 1982 p 1-13).

The author conducted depth interviews with Tongaat Mushroom's brand management, sales management, and their advertising agency personal. In addition depth interviews were conducted with consumers in the target market.

The main purpose of the consumer interviews was to encourage the people to talk about the product category fresh mushrooms and general home cooking. Emphasis

was placed on the benefits they might expect to receive from cooking with mushrooms, reasons for using more or less of mushrooms, the grounds on which they discriminated between and made choices among brands, shopping behaviour specific to fresh mushrooms and general attitudes towards food planning, purchase and preparation.

From the above the author generated a comprehensive list of several hundred phrases. Three focus group discussions were then held with members of the target market. Based on the outcome of this discussion, the author screened down the number of psychographic items to a more manageable size for inclusion in Phase II of the research.

4. Phase II Descriptive Research - Data Collection

In the descriptive research phase, the author was required to collect quantitative data from current mushroom users on four sets of variables: 1)geographic 2)demographic 3)behavioral and 4)psychographic (Refer Chapter 2, section 1.1 and fig 2.1). Based on this information, the author had to segment the market on the basis of volume of use to form two segments - namely, a group of heavy users and a group of light users of fresh mushrooms.

In order to implement the descriptive research phase, the author had to collect primary data from current mushroom users. This necessitated that the author make decisions with respect to the following three activities :

- 1) Choice of data collection method
- 2) Sampling procedure to be employed
- 3) Design of the questionnaire

These activities will each be detailed in the following 3 sub-sections, 4.1 - 4.3

4.1 Choice of a Data Collection Method

In choosing a method for data collection the author compared the alternate data collection techniques with regards to 7 criteria listed in Table 7.1:

Table 7.1

Summary comparison of major
data collection techniques

CRITERIA	CHARACTERISTICS OF THIS STUDY	TELEPHONE	PERSONAL IN-HOME	MALL INTERCEPT	DIRECT/COLD MAILING
Complexity and versatility	Relatively complex and long questionnaire/different sections/different format/ different types of data	Substantial but complex or lengthy scales difficult to use	Highly flexible	Most flexible	Not much
Quantity of data	Substantial quantity of information to be collected	Short, lasting typically between 15 and 30 minutes	Greatest quantity	Limited 25 minutes or less	Substantial
Sample control	Random representative sample of fresh mushroom users required	Good, but nonlisted households can be a problem	In theory, provides greatest control	Can be problematic; sample representativeness may be questionable	Little
Quality of data	Small % of questions that may invite "socially acceptable answers" eg. Cooking for family is an important part of my life	Positive side, interview can clear up any ambiguities, negative side may lead to socially accepted answers	In addition, there is the chance of cheating	In addition, unnatural testing environment can lead to bias	Better for sensitive or embarrassing question; however, no interviewer present to clarify what is being asked
Response rates	Good response rate required	60-80%	Greater than 80%	As high as 80%	In general, low; as low as 10%
Speed	Speed was not of primary concern	Large studies can be completed in 3 to 4 weeks	Faster than mail but typically slower than telephone surveys	Large studies can be completed in a few days	Several weeks; completion time will increase with follow-up mailings
Cost	Cost was not of primary concern	Not as low as mail; depends on incidence rate and length of questionnaire	Can be relatively expensive, but considerable variability	Less expensive than in-home, but higher than telephone; again, length and incidence rate will determine cost	Inexpensive; as low as \$2.50 per completed interview

Source: Dillon W.R., Madden T.J., Firtle N.H., "Marketing Research in a Marketing Environment" P 201, 2nd Edition, (Richard D. Irwin, Inc. 1990)

The author analyzed the strengths and weaknesses of the alternate data collection techniques in the context of the specific needs of this study. Based on this analysis, the author elected to use the personal in-home method of data collection for the descriptive phase of this research.

Personal in-home interviews involves asking questions of a sample respondents face to face in their home (Churchill, 1987 p 241). A review of the literature revealed that personal in home interviews offered both advantages and disadvantages to the researcher.¹

4.1.1 Advantages of Personal Interviews:

(1) Information Control

It is generally acknowledged that lengthy questionnaires and large volumes of information are best handled and collected by personal interview.

Haley comments as follows: 'Personal interviews result in more respondents attention to the rating scales used and consequently in clearer more sensitive measurement' (Haley, 1985 p 84).

(2) Sampling Control

Personal interviews affords greater degree of sampling control in directing the questionnaire to specific sampling units. Problem of non-response is therefore lower.

(3) Administration Control

Personal interviews afford excellent quality control in terms of collecting and recording the data.

¹ For a detailed discussion on the advantages and limitations of personal interviews see:
Churchill, 1987 p 242-0257
Dillon et al, 1991 p 195-198
Collins, 1980 p 77-95
Bailar et al, 1977 p 337-343
Case, 1971 p 39-41

4.1.2 Disadvantages of Personal Interviews

The author acknowledged that there were various disadvantages associated with the technique. These are:

1) Interviewer bias

Personal interviews can be subject to interviewer bias because of the respondents perception of the interviewer and because different interviewers may ask questions or probe in different ways.

2) Cost

Personal interviews tend to be the most expensive per completed contact.

3) Non-Response

Bias may occur when a target subject cannot be found.

The literature reveals that there are a number of techniques that are successful in overcoming some of these disadvantages. The author adopted a number of these in this research study.

4.1.3 Techniques Adopted to Reduce Problems typically Associated with Personal Interviews

The author undertook a number of actions to minimize the following 3 problem areas:

- 1) Interviewer Bias
- 2) Non Response Rate
- 3) Item Non Response

4.1.3.1 To Minimize Interviewer Bias

A review of the literature reveals that there are 3 sources of interviewers bias:

- 1) Background factors - Evidence suggests that interviewers background can affect the results and that better co-operation and more information is obtained when the background of the interviewer and respondent are similar than when they are different:

(Bailar, 1977 p 337-343)

(Churchill, 1987 p 518)

(Kahn et al,1957 p 197-199)

- 2) Psychological factors - Evidence suggests that interviewer's opinions, perceptions, expectations and attitudes affect the responses they receive (Sudman, 1977 et al p 177-182).
- 3) Behavioral factors - Evidence suggests that there are 3 interview behaviours that may lead to response bias (Collins, 1980 p 77-95):
Namely :
 - 1) Errors in asking questions and probing for extra information.
 - 2) Errors in recording the answer.
 - 3) Errors in cheating.

In order to minimize the potential interview biases listed above, the author took the following **preventative actions**:

- 1) Selected one interviewer to conduct all fieldwork (Interviewer was well paid and closely controlled).
- 2) Interviewer was white, married female aged 35 years in B income group, fully bilingual. The author attempted to match as closely as was feasibly possible, the interviewer and the targeted respondents in order to gain respondents cooperation. 'It is productive to match the background characteristics of the interviewer and respondent as closely as possible as the more characteristics the two have in common, the greater the probability of a successful interview. (Kahn, 1975 p 197-199).
- 3) The interviewer was carefully trained. She was made aware of the potential psychological factors that may affect interviewers behaviour and it was stressed that these should not be allowed to affect the interview and thereby contaminate the response.

The interviewer was also given a strict set of written procedures to follow.

The interviewer also conducted the 20 pilot questionnaire interviews. This provided the necessary practice training.

- 4) The format of the questionnaire was highly structured. In addition there were no open-ended questions and no probing was required. The respondents were also given prompt cards for all the psychographic statements.

The above methods therefore reduced the likelihood of behavioral factors influencing the response.

- 5) The author personally validated 10% of all completed interviews through follow-up telephone calls.

4.1.3.2 To Minimize the Non Response Rate

A variety of factors related to the questionnaire are said to influence the response rate. Such factors include:

- Interest
- Length
- Opening Gambit
- Incentives/Bribery
- Format
- Advance Notice
- Call-back follow up

1) Interest

It is widely acknowledged that the greater the interest, the lower the portion of non-respondents. Lehman, in fact, states that 'interest is probably the major determinant of response rate (Lehman, 1989 p 321). Fortunately in this case the topic chosen was related to food and home cooking which held a high degree of interest for the respondent. The interviewer, in fact, rarely was refused an interview once the subject matter was made known.

2) Length

The longer the interview takes to complete, the less likely someone is to begin it and the better chance there is that the respondent may drop out or fail to complete portions of the questionnaire. Length also increases fatigue which results in reduced quality.

The questionnaire used in this research was lengthy (20 pages specifically); however this was necessitated by the volume of data to be collected. The literature does reveal, however, that response rates for past studies were remarkably constant for 8-20 page questionnaires (Lehman, 1989 p 324). As was mentioned prior, the interviewer received few refusals and the length was not a major factor in causing non-response. The author also did have in her favour the fact that it was a high interest topic and it was conducted personally in-home.

3) Opening Gambit

The opening which invites the individual to participate is very important. Lehman (1989 p 324) states that appeals of many types are useful for 'getting respondents attention' including money and self interest. In addition, the 'right credentials' are useful in persuading reluctant individuals to participate. The opening gambit used in the questionnaire incorporated all of the above. In addition, the interviewer was given an official University of Cape Town letter supporting the research.

4) Incentives/Bribery

In general, incentives have not proven overly effective (Lehman, 1989 p 325). The interviewer did however offer to respondents a product voucher to the value of R10.00 to those whom completed the questionnaire.

5) Format

Attention was paid to the layout and printing of the questionnaire by the author. This afforded maximum readability. In all cases, use was made of prompt cards where necessary.

6) Call Back/Follow Up

A few individuals in the sample were not at home when the interviewer first attempted to contact the potential respondent. In these cases 2 call backs were made. If still no response a second call back was made within one week. If after the 2nd call back there was still no response, the respondent was substituted.

4.1.3.3 To Minimize Item Non-Response.

A potential problem in the study (particularly because of the length of the questionnaire) could have been missing data - e.g. incomplete or incorrectly completed questionnaires. Firstly by conducting personal interviews in the home the chances of this occurring are reduced; however, as an added precaution in this study, the interviewer both asked the question and recorded the answer to the question immediately. It was therefore NOT self administered by the respondent reducing the risk of item non-response.

4.2 Sampling Procedure

The author was required to obtain a sample of respondents that was representative of the target population of interest. Figure 7.4 provides an overview of the steps in the sampling procedure process that was adopted by the author. These 6 steps are detailed in the following sub-section 4.2.1 - 4.2.5.

Figure 7.4 : 6 Step Procedure for Drawing a Sample

Step 1	Define the Population
Step 2	Identify the Sampling Frame
Step 3	Select a Sampling Procedure
Step 4	Determine the Sample Size
Step 5	Select the Sample Elements
Step 6	Collect the Data

* Source Churchill, G.A., 1987 'Marketing Research - Methodological Foundations' 4th Ed(The Dryden Press) p 433.

4.2.1 Definition of the Population of Interest (Step 1)

The population of interest was defined as follows: All persons who are currently purchasers and consumers of fresh mushrooms for in-home use.

4.2.2 Identification of the Sampling Frame (Step 2)

In the second step the author identified the sampling frame as follows: All white females aged 18 years and over, living in the major metropolitan areas of PWV, Durban or Cape Town who are responsible for household grocery shopping and who are currently purchasers and consumers of fresh mushrooms for in-home use.

The sampling frame was confined to the white market. Past research undertaken by Tongaat Mushrooms revealed that the white market currently accounted for over 80% of TOTAL fresh mushroom consumption in South Africa. (Research Surveys, June 1990). In addition, only females over 18 years were targeted as the author believes that these consumers are generally responsible for the majority of household grocery shopping decisions. Finally, the research was confined to the major metropolitan areas for reasons of cost and also because these areas account for the

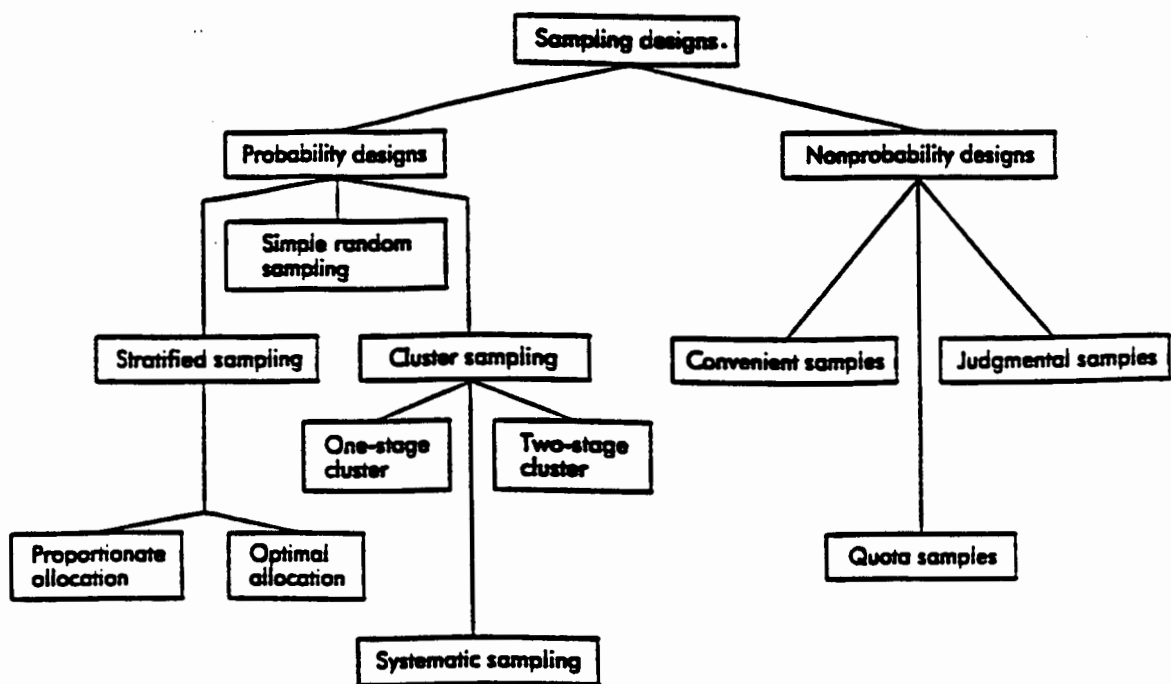
majority of fresh mushroom consumption. (Tongaat Mushrooms - Marketing Plan).

The author does, however, acknowledge that the study is limited by the fact that it does NOT cover all race groups and all areas.

4.2.3 Selection of Sampling Procedure and Selecting the Sample Elements (Steps 3-5)

Sampling procedures can be divided into the 2 broad categories of probability and non-probability samples (See Figure 7.5 below).

Figure 7.5 Taxonomy of Sampling Designs



Source: Dillon W.R, Madden, T.J., Firtle, N.H., 'Marketing Research in a Marketing Environment', 1990 p 280.

Since a representative sample of fresh mushroom users was required, the author selected a probability sampling design. It offered the following necessary benefits (Dillon 1991 p 291-292)

- 1) Ability to calculate the likelihood that any given population element will be included in the sample
- 2) Can evaluate the precision of the sample result
- 3) Can therefore ensure that the sample is representative of the population of interest.

A multi-stage cluster sampling procedure was identified and selected by the author as being the most appropriate sampling technique for this study. The procedure adopted was as follows:

- 1) All white females, aged 18 years or older who are currently users of fresh mushrooms were divided into 3 mutually exclusive and exhaustive subsets on the basis of region. Specifically the 3 subsets were as follows:
 - Cluster 1 = PWV
 - Cluster 2 = Durban
 - Cluster 3 = Cape Town
- 2) The second stage involved dividing each of these regions into area zones which were mutually exclusive.
- 3) The third stage involved taking a random sample of suburbs from each area zone.
- 4) The fourth stage involved taking a random sample of neighbourhood blocks from each suburb.
- 5) The respondents were then selected by simple random sampling from each neighbourhood block.

The multi stage clustering procedure was chosen because it was both feasible and economical (Dillon et al, 1991 p 286-287, Churchill, 1987 p 463-469). Specifically, the procedure selected was feasible because a complete list of all elements of the target population was not required. (The

author did not have access to this and it would not have been practical to compile.) Secondly, the clustering procedure was a more cost effective method. Savings with regards to travel were made by confining to neighbourhood blocks.

The researcher did however also note the major disadvantage associated with cluster sampling. Specifically the precision of the results is frequently not as precise as with other techniques. In order to overcome this, the author chose a multi-stage clustering procedure which resulted in many clusters and only a few sampling units selected from each cluster. By adopting such an approach, the risk of within cluster sampling homogeneity is greatly reduced. (For detailed discussion see Dillon et al, 1991 p 287).

4.2.4 Determination of the Sample Size (Step 4)

A fixed sample size of 400 respondents was predetermined for this study. In deciding on this number, the author took the following into account:

- 1) The anticipated high percentage of variability of the population with regards to demographics, psychographics and mushroom usage behavioral patterns.
- 2) The fact that the purpose of gathering the data was to provide information to the Tongaat Mushroom company for the development of a marketing strategy. This implied that it was important to at least have a credible sample size.
- 3) The information to be gathered was to be used for research purposes and therefore it was important to have a credible sample size in order to draw meaningful conclusions.
- 4) The TOTAL budget for data collection was pre-set at R18 000.
- 5) Anticipated data analysis techniques. Specifically the author felt confident that the size of the sample would be sufficient to handle any cross classifications that the data might be subjected to.

Dillon et al, 1991 p 275-278, Churchill, 1987 p 477-491, Lehman, 1989 p

297-303 served as reference sources for the discussion under section 4.2.4 above.

4.2.5 Collection of the Data (Step 6)

As was stated in Section 4.1 the data was collected by means of personal interviews in the home of the respondents.

A single interviewer was selected and trained for the job. The data was collected over an eight week period commencing mid June 1991 and completed by mid August 1991.

The interviews took place in the PWV, Durban and Cape Town. In order to accommodate both working and non-working respondents, interviews were conducting from Monday - Saturday during the day and early evenings. The author included 4 filter questions at the start of the questionnaire (Refer Appendix B) to ensure that the respondents complied with the requirements as laid down in the sampling frame.

Measures taken to reduce field errors and non-response bias were discussed in Section 4.1.3.1 and will not be repeated here. It is sufficient to note that the researcher took into account the problems typically associated with this method of data collection and took preventative actions where appropriate.

4.3 Designing the Questionnaire (Refer Appendix B for a copy of the questionnaire).

4.3.1 Introduction

The next critical element in the descriptive phase of the research was the construction of a properly designed questionnaire. A questionnaire is simply a data collection instrument that sets out in a formal way the questions designed to collect the desired information (Dillon et al, 1991 p 376).

The author selected a structured undisguised questionnaire format to gather the information. The literature reveals that such an approach is appropriate for recovering factual information and for eliciting expression of opinion about issues on which people hold clear beliefs (Selltiz et al , 1976 p 316).

The author chose to use fixed alternate questions in which the responses are limited to the stated alternatives. This ensured that all respondents were replying to the same question. The literature reveals that it also offered the following advantages: (Selltiz et al, 1976 p 309-321).

- 1) Simple to administer
- 2) Easy to tabulate and therefore easy to analyze
- 3) Respondents should have little difficulty in replying
- 4) Responses usually more reliable in that if respondents asked the question again would result in the same response
- 5) The frame of reference is obvious from the alternatives.

The author did, however, acknowledge the disadvantages typically associated with this design and adopted the following procedures to overcome them:

- 1) Fixed alternate questions may force a response to a question on which subject does not have an opinion. The author therefore provided a neutral category.
- 2) Author provided five categories of responses for the psychographic variables, therefore allowing the respondent to distinguish themselves on how strongly they felt.
- 3) Pre-testing and exploratory research was used to ensure that the response categories adequately covered the range of probable replies.

4.3.2 Stages in Questionnaire Designs

The design of a questionnaire typically involves 6 steps listed in fig 7.6 below.

The author broadly followed this procedure for the design of the

questionnaire for this study, the detail of which will be presented in the next sub-section.

Figure 7.6 Stages in Questionnaire Design

1. List general types of information needed
2. List specific items within types
3. Write questions
4. Create a questionnaire
5. Test the questionnaire
6. Revise questionnaire and prepare for administration

Source: Lehman, Donald R, Market Research and Analysis
3rd Ed (Richard D. Irwin) 1989 p 134.

4.3.3 Information Required

In implementing a segmentation study, the first step required identifying both the basis variable(s) and the descriptor variables for the segmentation model. (Refer Chapter 2, fig 2.1).

Based on the exploratory research in phase I and the literature review the author concluded that for this study data was required to be collected on the following 4 Sets of Variables.²

- 1) Demographics:
 - Age
 - Language
 - Income
 - Work Status
 - Stage in family life cycle
 - No. of children per household

² The readers attention is drawn to Chapter 2 and 3 wherein respectively the types of variables for the segmentation study were detailed and defined. In Chapter 4, the psychographic measures were selected and defined.

- Size of household
- 2) Geographics:
 - Region
 - Suburbs
- 3) Behavioral:
 - Volume of use
 - Brand awareness
 - Brand usage
 - Usage situation
 - Usage occasion
 - Purchase location
- 4) Psychographics:(Refer Chapter 4,section 11,fig 4.1)
 - Shopping styles (with respect to fresh mushrooms)
 - Benefits
 - Products attributes
 - Brand attributes
 - Category beliefs
 - Role perceptions (with respect to home cooking)
 - Value orientations (with respect to home cooking)

The author classified the types of information required into two broad categories depending on their 'ease' of measurability:³

- 1) Demographic, geographic, behavioral variables (Obtained by objective measures)
 - 2) Psychographic variables required. (Obtained by inferred measures)
- Geographic, demographic and behavioral information is generally easily quantifiable and therefore can be relatively easily measured. The specific items to be included as measures of these variables will be detailed in the following sub-section 4.3.4.

In contrast, in order to obtain the psychographic information attitudinal

³ The author draws the readers attention to Chapter 3, section 4, wherein rationale as to the classification of segmentation variables is given.

research was required. For this reason the author will provide a separate overview of attitudinal measurement in section 4.4 and then in section 4.5 will detail the content of psychographic statements to be included in the attitude measurement tool. The final questionnaire used in the research is tabled in Appendix B.

4.3.4 List of specific items for Demographic, Geographic and Behavioral Variables

The author used the information obtained in the literature review, depth interviews and focus groups to complete this section. Any other specific references will be highlighted where necessary.

4.3.4.1 Demographics

Seven demographic measures were deemed to be pertinent and sufficient for this study. These are listed as questions 21-27.

4.3.4.2 Geographics

Only region and 'area zones' were recorded (p 1, questionnaire).

4.3.4.3 Behavioral

1) Volume of Use - (Question 5)

3 Levels of product usage were assessed to attain measures of heavy users, medium users and light users. The definition of each group was based on past research. (Research Surveys, 1990 p 44)

2) Brand Awareness and Usage (Question. 6-8). Only aided brand awareness was tested as past research had revealed low spontaneous awareness for regional brands. (Research Survey, 1990, p 13). Most frequent brand usage (to assess loyalty) and other brands ever used were tested in questions 7 & 8. All major national and regional brands were included.

3) Usage Occasions and Situations (Question 9-12). Questions 9 & 10 assessed the various applications of fresh mushrooms in home

cooking. 20 usage options were provided as a prompt. These were generated from past research and the focus groups.

Question 11 & 12 assessed the various occasions on which mushrooms were served at home. 6 meal occasions were provided as prompts. Again these were based on past research and focus group results.

4) Purchase Location (Question 13)

Question 13 was included to establish the most usual type of outlet frequented for the purchase of fresh mushrooms.

4.4 Attitude Measurement

Measurement of psychographics required the author to use attitudinal research techniques. The author will, therefore, first provide a brief overview of attitudinal research and then detail the individual content of the psychographic measures.

In this section the author will attempt to highlight the difficulty's and potential problems typically associated with attitude measurement. The author outlines the rationale for the scale type selected and strategies employed to avert such problems.

4.4.1 Development of the Attitude Measurement Tool

In order to obtain the psychographic data, the author had to measure respondents evaluations of their beliefs, perceptions, opinions and attitudes towards purchase and consumption of fresh mushrooms and general home cooking. The first step the author therefore undertook, was to evaluate the alternate methods available for measuring attitudes.

4.4.2 Methods of Measuring Attitudes

The literature reveals that there are a number of obstacles to obtaining attitudinal information and to assessing its validity and reliability (Bohrnstedt, G.W. 1970 p 85; Haley, 1985 p 53).

Recognising some of these problems, researchers have historically attempted to measure attitudes and beliefs in a number of different ways.

Examples include self reports, observation of overt behaviour, indirect techniques, performance of 'objective tasks, and physiological reactions. The literature further reveals, however, that each of these methods have a number of individual short comings. (Haley, 1985 p 54-56)

Consequently, evidence suggests that today researchers have tended towards greater use of rating scales (Haley, 1985 p 57). These have been found to offer a number of significant advantages over the historical methods of attitude measurement. Table 7.2 on the following page represents a summary of these advantages.

Table 7.2 Summary of Advantages - Rating Scale

* They encourage respondent participation by involving them in an interesting, quasi game-playing situation.
* Because the individual stimuli are generally succinct they permit coverage of a broad range of attitudes in a relatively short period of time.
* In relation to the amount of ground covered, respondent fatigue is held to a minimum.
* Differences in articulateness among respondents are evened out. Each respondent makes a similar number of judgements and thus has an approximately equivalent weight in the results.
* All respondents are presented with a uniform stimulus, a fact that is translated into relatively reliable results.
* Differences in questioning from interviewer to interviewer are reduced as the interviewer has little discretion in administration of interview.
* Results can be coded and tabulated quickly, easily, and objectively.
* There is little chance for personal viewpoints to be imposed on the data.
* Reliance on the judgement of coders to classify responses properly is eliminated because responses are all preceded. Similarly differences among coders are eliminated.

Source: Haley, Russel I 'Developing Effective Communications Strategy - A benefit segmentation approach 1985 1st Ed (John Wiley & Sons) p 57

Based on the advantages listed in Table 7.2 the author logically concluded that a scaling method would be the most appropriate tool to use to collect the psychographic information. The next issue to address was the selection and construction of an appropriate scaling Method.

4.4.3 Selection and Construction of Scaling Technique

Several types of scaling techniques have been employed (with varying success) to measure a persons attitude towards an object. The main types are listed below in Table 7.3:

Table 7.3 List of Alternate Scaling Methods

Thurstone Scales	(Ray, 1979)
Likert Scales	(Likert, 1932)
Guttman Scales	(Guttman, 1950)
Paired Comparison	(Edwards, 1957)
Semantic Differential	(Osgood et al, 1957)
Numerical Scales	(Stapel et al, 1968)
Verbal Scales	(Wells et al, 1960)
Constant Sum Scales	(Hughes, 1971)
Non Verbal Scales	(Cutler, 1978)
Combination Scales	(Juster, 1966)

In order to decide which scale to use for this study and to decide on the specific construction of the scale, the author referred to an extensive study done that had evaluated alternate scale construction combinations on their reliability estimates. Table 7.4 presents a summary of the study's main findings.

Table 7.4 Impact of Selected Measure Characteristics on Reliability Estimates

MEASURE CHARACTERISTICS	CONCLUSION
Number of items in final scale	The hypothesis that there is a positive relationship between the number of items used in the scales and the reliability of the measure is supported.
Difficulty of items	The hypothesis that a negative relationship exists between the difficulty of the items and the reliability of the measure is not supported.
Reverse scoring	The hypothesis that scales with reverse-scored items will have lower reliability than scales without them is not supported.
Type of scale	No <u>a priori</u> prediction was made that one of the scale types is superior, and no relationship was found between scale types and the reliability of the measure.
Number of scale points	The hypothesis that a positive relationship exists between the number of scale points over the normal range and the reliability of the measure is supported.
Type of labels	No <u>a priori</u> prediction was made that numerical and verbal labels are superior to verbal labels only, or vice versa, and no relationship was found between type of labels and the reliability of the measure.
Extent of scale point description	The hypothesis that scales for which all points are labelled have higher reliability than forced-choice scales is not supported.

Source: Adapted from Gilbert A. Churchill, Jr., and J. Paul Peter, 'Research Design Effects on the Reliability of Rating Scales: A Meta-Analysis,' *Journal of Marketing Research*, 21 (November 1984), p 365-366. Published by the American Marketing Association.

The general conclusion emerging from Table 7.4 is that many of the choices with respect to type and construction of the attitude rating scale do not seem to materially affect the quality of the measure that results. Churchill comments as follows:

'Many of the choices are and will probably remain in the domain of the

researchers judgement, including the choice among Semantic Differential, Likert, or other rating scales. All the scales have proven useful at one time or another. All rightly belong in the researcher's measurement tool kit' (Churchill, 1987 p 344).

Exceptions to this conclusion are however the number of items and the number of scale points. For both of these characteristics, the reliability of the measure increases as they increase. For the other characteristics, though, there are no choices that are superior in all instances.

Taking these findings into account the author elected to use the Likert scale as evidence revealed that it offered the following important characteristics relevant to this study.

- 1) Information on intensity would be obtained.
- 2) Easy to administer.
- 3) Not very cognitively taxing.
- 4) Use of verbal descriptions and different number of response item categories afford high flexibility (Haley, p 65-69)

Churchill (1987 p 330) states that subjects generally find it easy to respond to a Likert scale because the response categories allow for the expression of intensity of feeling.

The author furthermore made the following decisions with respect to the construction of the Likert Scale.

- 1) Length of Scale
5 point Likert scale chosen. The literature reveals that scale lengths from 5-8 points best meet the requirements of an ideal scale (Osgood, et al 1957, Boote, 1981 p 53-60).
- 2) Balanced Scale
The author hypothesized that responses to the attitude questions were likely to be equally balanced and therefore selected a scale with equal number of positive and negative points. (Haley, 1985 p 63).
- 3) Odd Number of Points
Evidence suggests that odd versus even number of points is not a critical issue. In this case odd number of points (5) selected (Haley, 1985 p 63).
- 4) Neutral position
Neutral position provided.

4.4.4 Selection of Items for Attitude Measurement Tool

Having decided on a five point balanced Likert Scale, the author then had to select the specific psychographic items to include as measures of the six psychographic constructs (Refer Chapter 4, sections 11-14).

In Chapter 5 of this thesis, the literature revealed that psychographic research is often criticized for its lack of a disciplined approach to the selection of psychographic items. It has often been termed a haphazard 'fishing expedition'

In order to address this criticism, the author developed a hypothetical model for this study (Refer Chapter 4, fig 4.1). The model attempts to represent the hierarchy of psychographic effects on the buying behaviour of fresh mushrooms. This model was used to guide the selection of psychographic measures hypothesized to be relevant to the specific problem under investigation.

Based on the model 6 psychographic measures were selected. These, in turn, are required to be operationalized through a number of psychographic items/statements.

The procedure for generating and selecting the psychographic items was completed in the exploratory phase of this study and detailed by the author in section 3 of this Chapter.

The author acknowledges that a number of researchers propose a multi-step process for the selection of psychographic statements. This usually involves both exploratory research and often two stages of interviewing. (Dillon et al, 1991, p 374; Haley, 1985 p 80; Lundstrom et al, 1976 p 373-381; Churchill, 1979 p 64-73; Schiffman et al, 1987 p 149-150)

The author broadly followed these steps for the generation and selection of psychographic items. Time and costs constraints, however, prevented her from performing all the detailed refinement checks recommended as this would have necessitated two separate stages of interviewing. The procedure therefore served as a framework and was implemented in part as determined by the resources available.

The author acknowledges that by adopting such an approach the selection of the items to a large extent rested with her and therefore a certain degree of subjectivity does come into play. Specifically the procedure adopted could attract criticism in the following areas:

- 1) The design of the psychographic measurement tool could be said to be more of an 'art form' than a scientific endeavour.
- 2) Another researcher might generate a different set of measures and therefore come up with quite different results.

In order to minimize this potential bias a great deal of emphasis was placed by the author on the exploratory phase of the research in order to generate comprehensive and relevant criteria for measurement. Secondly, the author

relied on the model (Refer Chapter 4, fig 4.1) to guide the selection of psychographic items. In selecting the 'appropriate' items to include, the author was guided by the model and how it related specifically to the problem at hand.

At least by following this specific procedure and by employing the exploratory research phase the author adopted a more structured approach to the selection of the psychographic items. While the author acknowledges that this does NOT guarantee reliability and validity of the measurement tool, one is at least more assured that the majority of the relevant sets of psychographic items have been covered.

4.4.5 Assessing Reliability and Validity of the Attitude Measurement Tool

Attitudes per se are directly unobservable. (Dillon et al, 1991 p 367). The literature therefore reveals that researchers must be particularly sensitive to the properties of the measurements used (Dillon et al, 1991 p 373; Schmidt et al, 1986).

Specifically it is necessary to assess the ability of the items generated and selected to capture the construct as conceptualised (Peter J., 1984 p 6-17). The literature reveals (Refer Chapter 6) that this is particularly important when psychographic measures are included, as psychographic measures, themselves, are typically criticised on the grounds of reliability and validity.

The author shall address the specific reliability and validity estimates that were completed for this study in Chapter 8.

4.5 Content of the Individual Psychographic Measures

As stated in section 3 of this Chapter, the author generated a list of several hundred phrases in the exploratory research phase as related to mushroom purchase and consumption and general home food planning and preparation. In this section the author details the actual psychographic items selected as measures of each of

the 6 psychographic constructs.⁴

As was detailed by the author in section 3 of this chapter, the data for the statements on benefits, category beliefs and product attribute association was generated from past research supplied by Tongaat Mushrooms (Research Surveys 1990) and the depth interviews and focus groups.

The data for statements assessing respondents shopping styles for fresh mushrooms and role perceptions and value orientations towards home cooking were sourced initially from published studies pertaining specifically to food purchase and preparation behaviour. (Jackson et al 1985 p 110-113; Roberts et al 1979 p 28-39; Nichols et al 1983 p 197-208; Venkatesh et al 1980 p 189-197; McCall 1977 p 55-65; Strober et al 1977 p 141-147; Redman 1980 p 234-237; Dhalla et al 1976 p 34-41; Beld 1972 p 184-185; Haley 1984 p 19-25; Frank 1967 p 48-53; Wilson 1966 p 305-331; Betsy 1985 p 23; Fish 1990 p 108-112).

These 14 studies provided the author with over 100 psychographic dimensions relating to food selection and preparation. These dimensions were then further explored in the depth interviews and focus groups to assess their relevance and applicability to the South African market and the specific problem at hand. Sections 4.5.1 - 4.5.6 detail the final items selected for each of the 6 psychographic constructs.

4.5.1 Benefits (Refer Appendix B Question 15.)

10 benefit statements were selected. The respondent was required to select 3 benefits and rank in order of importance. The benefits included ranged from ease of use, to product intrinsics and usage applications.

⁴ The readers attention is drawn to Chapter 4, section 14, where a definition of each of the 6 psychographic measures is provided. In addition, in Part II, section I of this Chapter, a summary of the model (fig 7.3) which guided the selection of the measures is provided.

4.5.2 Product and Brand Attribute Association

(Refer Appendix B Question 16 + 17)

6 major product attributes that the author hypothesized could influence the consumer in the selection of the product were included. The respondents were required to select and rank 3 in order of importance. In question 17, respondents then indicated which brands they associated with which attributes. In this way the author was attempting to assess the respondents importance rating of product attributes and how each of the brands 'measured up' to these standards.

4.5.3 Category Perceptions (Refer Appendix B Question 18)

20 consumer beliefs about fresh mushrooms were tested in Question 18. The beliefs tested covered 9 'categories' ranging from value, versatility, price and risk perceptions to nutrition, taste and health attribute perceptions.

4.5.4 Shopping Behaviour (Refer Appendix B Question 14)

Buying styles selected were related specifically to the category of fresh mushrooms. The literature reveals that consumer's buying styles change depending on the product to be purchased and therefore it is preferable to be specific to the product under investigation (Dhalla et al 1976 p 38). The author selected 10 different buying styles from the exploratory research phase that reflected different approaches that possibly could be adopted by consumers in relation to mushroom purchasing. The styles ranged from habitual buying, to price/value buying, quality buying etc. These different styles are listed in Appendix B, Question 14, statements 1-15.

4.5.5 Role Perceptions (Refer Appendix B Question 19)

Role Perceptions refer to the manner in which an individual behaves in order to give positive expression to the type of person she is or perceives herself to be (Dhalla and Mahatoo 1976 p 37). Relating this definition to the study at hand it refers to the cooking style that the housewife adopts in order to portray an image of the type of homemaker she is or perceives herself to be (Refer Chapter 4, section 14).

3 broad categories of role perceptions were hypothesized by the author as applicable measures of the different types of roles the South African female could perceive herself portraying with respect to home food preparation. These pertained to :

- 1) Special Occasion and Creative Cooking Roles (1, 23, 27, 11,18)⁵
- 2) Routine Home Cooking Roles
Home Orientated (8, 20, 26)
Home Avoider (12, 16, 25, 28)
- 3) Opinion Leadership (7, 13, 21)
Communication(9, 17, 29, 5, 14,22)
Media Habits(4, 10, 15, 24, 19, 30)

4.5.6 Value Orientations (Refer Appendix B Question 20)

Value orientations were defined previously as an enduring belief that a particular mode of conduct or that a particular end state of existence is personally and socially preferable to alternative modes of conduct and end states of existence. (Dhalla & Mahatoo 1976 p 37)(Chapter 4, section 14). Relating this definition to the study at hand an individuals 'value system' for home cooking would: 1) encompass her motivations for food planning and preparation, 2) tell her what attitudes she should hold 3) provide her with standards by which she could make evaluations of her performance.

⁵ (The numbers in brackets refer to the relevant statement numbers in question 19)

The author selected 6 categories of value orientations with respect to home cooking in the South African Market:

- 1) Weight Watcher (6,13,21,29,33)⁶
- 2) Love for Cooking (2,12,24,32
5,9,20,27)
- 3) Time Saver (8,15,22,31,34)
- 4) Nutrition/health conscious (1,11,16,23,35,3,19,26,28,30)
- 5) Pro Ecology (7,14,18)
- 6) Budgeter (4,10,17,25)

4.6 Writing Questions - Content and Wording

Having selected the psychographic, demographic, geographic and behavioral variables to be included, the author then had to decide on the specific wording of the question or statement.

There is an overwhelming amount of evidence that concludes that the content and wording of the individual questions is a critical step in questionnaire design and can directly impact on the reliability of the information obtained. (Lehman, 1989 p 145; Churchill, 1987 p 289-296).

The author followed the general rules as outlined by Haley for wording of questions/statements. (Haley 1985 p 82-83). Based on these rules the author attempted to take the following actions:

- 1) Screened out all advertising slogans.
- 2) Used conversational words and statements wherever possible.
- 3) Most phrases used were as short as possible.
- 4) Tried to represent each basic concept by at least two separate statements.
- 5) Used approximate syntax.
- 6) Avoided expressing two ideas in a single statement.

⁶ Numbers in brackets refer to statements selected to measure each of the 8 value orientations as reflected in question 20, Appendix B.

- 7) Scattered the statements being rated. Haley suggests that if arranging of statements with similar data is grouped together can introduce bias.

4.7 Creating the Questionnaire

The literature reveals that having written the questions/statements the author needs, finally, to construct the questionnaire. The order in which a questionnaire is put together is critical (Lehman, 1989 p 153-156); Churchill, 1987 p 296-298).

Furthermore, there are a number of guidelines that should be adopted to sufficiently complete this task (Dillon et al, 1991 p 387-392). The following rules were followed by the author:

- 1) Use of simple, interesting opening questions
Questionnaire commences with simple information to be obtained on region and then proceeds to gather data on mushroom usage.
- 2) Use of funnel approach
Order of questions was scrutinized by the author to ensure that no 'early' questions could bias response to questions that followed.
- 3) Ask for classification information last
All demographic information was obtained last (questions 21-27).
- 4) Place difficult and sensitive questions later in the questionnaire
The author placed the questions pertaining to role perceptions and value orientations towards cooking at the end of the questionnaire as it was hypothesized that by this stage the respondents would be more fully involved in the questionnaire and some degree of trust would have been built up with the interviewer.

The layout and presentation of the questionnaire can also affect the accuracy of the results (Dillon et al, 1991 p 392-398; Churchill, 1987 p 298-301).

The author acknowledged this and took the following actions:

- 1) Question and Answer 'blocks' were correctly lined up to ensure accuracy.
- 2) Each questionnaire was numbered.
- 3) The questionnaire was pre-coded.

- 4) The questions and/or attitude statements were numbered.
- 5) The questionnaire was carefully laid out with maximum use of spacing and use of new pages where necessary.
- 6) The questionnaire was typed and printed on quality paper - single sided.
- 7) A covering letter for the interviewer was supplied.
- 8) No 'skip' instructions were necessary.

4.8 Testing of Questionnaire and Revision

The literature reveals that data collection should never begin without an adequate pre-test of the instrument (Dillon et al, 1991 p 398).

The original questionnaire was pilot tested among 20 respondents chosen as being typical of the defined sample population.

Each respondent was approached in their home. Their co-operation was requested and they were asked to comment on the questionnaire and say how long it took them to complete.

Only minor criticisms emerged and these were addressed by the author. This resulted in certain questions being reworded and a section on general media habits was removed to save time.

The average time taken to complete the questionnaire in the pilot test was 25-30 minutes. It was therefore possible to state in the letter covering the final questionnaire that it would take no longer than 30 minutes to complete.

5. Analysis of Data

In the previous sections the author detailed the specific information required to solve the empirical problem, and the specific techniques employed to gather this information. In this final section the author outlines the procedures used to process and analyze the information.

Data processing and analysis generally involves the following steps: (Selltiz et al,1976 p 475 - 476)

- 1) Editing
- 2) Coding
- 3) Data Input
- 4) Analysis of the Data

Steps 1-3 deal with preparing the data for analysis while Step 4 deals with the statistical treatment of the data.

5.1 Editing(Step I)

The author checked all returned questionnaires for illegible, incomplete or inconsistent responses. 13 questionnaires were identified as unacceptable. The researcher believed that the results would not be biased by the removal of the respondents and the 13 questionnaires were discarded reducing the final sample size from 415 to 402.

Such a step is consistent with the literature. Lehman comments as follows: 'It's the easiest thing to do and a widely followed approach providing the sample size is sufficient to allow it.' (Lehman 1989 p 360). Based on the fact that there were a larger number of 'good respondents'(402) both in an absolute sense and relative to the number of bad respondents (13) it was therefore possible to ignore the 13 'bad' ones.

5.2 Coding

In this step the author converted the responses on the questionnaire into coded form for inputting to the computer. This was a relatively straightforward process as all

questions were fixed format, close ended questions.

Columns were provided on each questionnaire to record the converted values.

5.3 Data Input

The author employed an experienced University of Cape Town operator to enter the data. The information was entered directly from the questionnaire into a specially created data file on a VAX 6000-330 (Main frame computer facility at the University of Cape Town). A second operator then re-entered the data in order to verify the data input.

The data was then reformatted into a Fortran fixed-format. The author then checked for any missing values, or values out of range (maximum and minimum). In addition spot checks were carried out comparing individuals in the data file with actual questionnaires.

5.4 Analysis of the Data

The data was analyzed using the BMDP package.

The following procedures were performed:

5.4.1 Tabulation

First simple tabulation was performed in order to obtain a description of the data and draw a profile of the sample.

5.4.2 Factor Analysis

The author performed a factor analysis on each of the following sets of variables:

- 1) Category Beliefs
- 2) Role Perceptions
- 3) Value Orientations

The author performed the factor analysis on the three constructs for the following reasons: (Schvessler, 1971 p 4)

1) Data Simplification

Factor analysis groups together variables which are highly correlated and therefore to some extent redundant. The author was therefore able to reduce the large number of variables in each of these constructs to a more manageable number.

2) Identification of Basic Structure Underlying Variables

By employing factor analysis the author wanted to uncover any underlying structure that might have been present in the data. It was hoped that the factor analysis would uncover sets of factors that were interpretable and therefore would contribute to the author's understanding of each of the 3 psychographic measures.

3. Reliability Estimates

Factor analysis can be used to estimate reliability of measures. The author will address this in greater detail in Chapter 8.

5.4.3 Discriminant Analysis

The main problem to be addressed in this research was to critically assess the contribution of the psychographic variables to the segmentation study. A review of the literature revealed that discriminant analysis is a useful technique for analyzing which characteristics discriminate between members of two groups and their relative importance (Lehman, 1989 p 731). Affifi and Clark comment as follows: 'Discriminant analysis techniques are used to classify individuals into one

of two or more alternate groups on the basis of a set of measurements. The populations are known to be distinct and an individual belongs to one of them. These techniques can also be used to identify which variables contribute to making the classification' (Affifi & Clark 1990 p 272). Since it had been decided a-priori to divide the population into two mutually exclusive sets of consumers - heavy users and light users, it was therefore possible to employ discriminant analysis (Refer Chapter 2, section 1.1).

The discriminant analysis would then identify which variables distinguished heavy users from light users and their degree of importance. However, in order to assess the contribution of the psychographic variables it was necessary to perform the discriminant analysis twice. In phase I only the demographic, geographic and behavioral variables were to be included in the discriminant analysis. In phase II the psychographic variables would be added and the discriminant analysis would be repeated. The discriminant analysis would yield the percentage of respondents correctly classified as heavy users or light users in each phase and identify which variable were significant in terms of this classification. The author would then quantify the specific contribution of the psychographic variables and their relative importance on the completion of phase II of the analysis.

In order to use discriminant analysis the author had however to perform certain data transformations. This was necessary as the literature reveals that discriminant analysis is a technique that is appropriate with a nominal dependant variable (in this case usage) and interval independent variables (Kinnear et at, 1987 p 548).

In order to overcome the constraints of having to have interval independent variables, the nominal dependant variables were converted to dummy variables. (For details regarding the procedure refer Affifi and Clark 1990 p 285 Section 9.3 and Kinnear and Taylor, 1987 p 545 - 547). A copy of the BMDP stepwise discriminant analysis run streams are in appendix D (Phase I) and Appendix E (Phase II).

5.4.4 Cross Tabulation

Step 2 in the segmentation process calls for profiling of the target segments on their significant distinguishing characteristics. (Refer Chapter 2, fig 2.1).

The discriminant analysis would have identified those descriptor variables which significantly discriminated between the heavy users and light users. In order to profile these two segments the author had to investigate and establish the specific relation between the key variable (usage) and these significant distinguishing 'descriptor' variables . Simple cross tabulation was used for this purpose.

SUMMARY

Part II of this Chapter addressed the methodology employed by the author to gather the empirical data required to implement a market segmentation analysis for Tongaat Mushrooms.

Both exploratory and descriptive research was required. In the exploratory phase the psychographic items were generated and selected for inclusion in the descriptive phase of the research. In addition, the selection of the psychographic items was guided by a hypothetical model developed by the author for this study.

The descriptive research required quantitative data to be collected from a representative sample of the target population. A multi stage cluster sampling procedure was therefore implemented. The data was collected by means of personal in-home interviews using a structured undisguised questionnaire.

The questionnaire collected information pertaining to geographic, demographic, behavioral and psychographic measures. The inclusion of psychographic measures required that the author develop a reliable and valid attitudinal measurement tool.

On collection of the data, it was edited, coded and analyzed by means of the BMDP package. Simple tabulation, factor analysis, discriminant analysis and cross tabulation was performed on the data.

The following Chapter in this thesis - Chapter 8 will detail the results of the data analysis.

CHAPTER EIGHT

ANALYSIS OF DATA

OUTLINE

Chapter 8 is divided into 2 parts.

In part 1 the author will present a brief profile of the respondents selected for this study.

The author wishes to stress that Part I is not related to the segmentation procedure. The objective of Part I is simply to summarize the data and provide a descriptive profile of all respondents in the sample on the four sets of variables - namely demographic, geographic, behavioural and psychographic measures. Furthermore, it should be noted that in Part I only a synopsis of the findings is presented. A detailed analysis of the respondents' profile is available in Appendix C.

The purpose of providing an overall description of respondents selected for this study is to:

1) Validate the sample

The author will motivate that the sample selected for this study is representative of current fresh mushroom users.

2) Provide an understanding of the consumers in the particular application area of this study.

3) Provide information to the industry

The sample of current fresh mushroom users will be profiled on four sets of variables. This information should be of value to the industry for identifying psychographic, demographic and behavioural patterns amongst existing fresh mushroom users. In addition any marketing strategies that are developed for Tongaat Mushrooms, based on the segmentation study findings, should take into account the overall demographic, psychographic and behavioural profile of current mushroom users.

Part I of Chapter 8 therefore attempts to give the reader an understanding of the

consumers in the particular application area of this study. It is, however, NOT the focus of this thesis.

In Part II of Chapter 8, the author addresses the main problem of this thesis - namely to critically assess the contribution of psychographic variables in the profiling stage of a market segmentation study. Part II will therefore address the segmentation problem. It will deal specifically with segmenting the fresh mushroom market on the basis of usage and then profiling the resulting segments in two phases:

Phase I - demographic, geographic and behavioural variables only.

Phase II - including psychographic variables

The contribution of the psychographic variables to identifying, describing and distinguishing between heavy users and light users of fresh mushrooms will then be assessed.

PART I - SAMPLE PROFILE (Refer Appendix C for a detailed analysis of the findings)

INTRODUCTION

Respondents selected for this study were confined to white females aged 18 years and over, who were responsible for household grocery shopping and who were current users of fresh mushrooms.

The respondents will be profiled on four sets of variables. Firstly, in sections 1 and 2, the location of the sample and the demographic profile of respondents is detailed. In section 3 the respondents behavioral patterns with respect to fresh mushrooms is outlined. Finally, in section 4 the author details the psychographic profile of the respondents.

1. Summary Geographic Profile (Refer Appendix C - Section I)

The sample was selected from the three major metropolitan areas only. As these areas currently account for 85% of national fresh mushroom sales, the author concluded that the majority of the market was represented. The sample was almost equally weighted between the Transvaal and the Cape with the balance of respondents located in Natal.

2. Summary Demographic Profile (Refer Appendix C - Section 2)

The demographic profile of fresh mushroom users in this survey, was found to be similar to that of the syndicated study conducted by Tongaat Mushrooms in June 1990. (Research Surveys 1990). Respondents were found to predominantly in the middle-age category (25-49 years), from smaller households in the upper income brackets. There was a slight bias towards english speaking respondents. Finally, 50% of respondents were working either full or part-time despite almost half the sample having children < 16 years at home.

3. Summary Behavioral Profile (Refer Appendix C - Section 3)

50% of the sample were found to be heavy users of mushrooms with the balance of respondents divided into medium and light users. Current mushroom consumers appear to use mushrooms in a great variety of ways, but most popular applications are stews, salads, sauces and as a vegetable accompaniment. The majority of respondents serve fresh mushrooms most frequently at family dinners but again due to the wide variety of usage patterns they are also frequently served at braais, breakfasts etc. Mushrooms were predominantly purchased at supermarkets by respondents.

Almost all respondents were familiar with the brand leader Denny and 70% claimed to use it most often. In contrast the regional brands (in particular in the PWV) achieved comparatively lower awareness scores even amongst respondents located in their target area. Furthermore, very few of these respondents claimed to use these brands most often. Further analysis of the data did, however, reveal that many of the brands on the market, though they may not have been the brands used most often, still fell within the consumer's evoked set of brands that were claimed to be used on occasion. Woolworths, Silverstream, and Medallion (W.Cape) appear to be the more popular in this regard.

4. Summary Psychographic Profile (Refer Appendix C, Section 4)

6 measures were included in the psychographic profile of respondents (Refer Appendix B - Questions 14-20)

- 1) Product/Brand Attribute Association
- 2) Category Beliefs and Perceptions
- 3) Benefits
- 4) Buying Styles
- 5) Value Orientations
- 6) Role Perceptions

Measures 1-4 pertained specifically to fresh mushrooms while measures 5 and 6 related to home food preparation and selection

Due to the large number of items that had to be included to measure the constructs of Category Beliefs(2), Value Orientations(5) and Role Perceptions(6), factor analyses were conducted as a means of simplifying the data, to uncover any similarities within the data and to validate the author's hypothesized 'categories' of role perceptions and value orientations. (Refer Chapter 7 - Section 4.5.5 and 4.5.6) . The results of the factor analyses are detailed in Appendix C under the respective sections 4.2, 4.5 and 4.6.

4.1 Product and Brand Attribute Association (Refer Appendix C - Section 4.1)

The top 3 attributes in order of importance to be associated with and therefore influence the purchase of fresh mushrooms were:

- 1) Freshness - Overall Rating - 94%
- 2) Quality - Overall Rating - 75%
- 3) Price - Overall Rating - 62%

Almost all respondents stated the major salient attribute influencing their purchase of fresh mushrooms was perceived **FRESHNESS**. While quality and price also appeared to influence certain respondents, brand name rated as much less important

4.4 Buying Styles (Refer Appendix C - Section 4.4)

The buying styles exhibited by fresh mushroom users reinforced the findings in sections 4.1-4.3. Again, the importance of freshness was expressed by the majority of respondents when referring to their buying behaviour. While only a third of respondents were purely price buyers, many were price sensitive and bought mushrooms when on special. Impulse buying was also common as was brand switching depending on price/quality factors.

4.5 Value Orientations towards Home Cooking (Refer Appendix C - Section 4.5)

This construct attempted to measure the respondents underlying values and beliefs with respect to home cooking (Refer Chapter 4 section 14).

Analysis of the data revealed 10 underlying value orientations expressed by respondents towards home cooking.

Based on these findings there appears to be a strong motivation, enjoyment and sense of responsibility felt for home cooking amongst respondents.

This resulted in strong attitudes expressed towards nutrition, health, artificial ingredients and calorie content in food. Time and cost, however, were also identified as major factors influencing respondents behaviour towards home cooking.

4.6 Role Perceptions (Refer Appendix C Section 4.6)

This construct attempted to measure the respondents roles they perceived themselves as playing with specific respect to home cooking.

Analysis of the data revealed 8 different role perceptions. These 8 roles ranged from home provider and social entertainer to the home cooking avoider. Cooking was also perceived to be creative and media related to cooking was avidly consumed by more than half the sample.

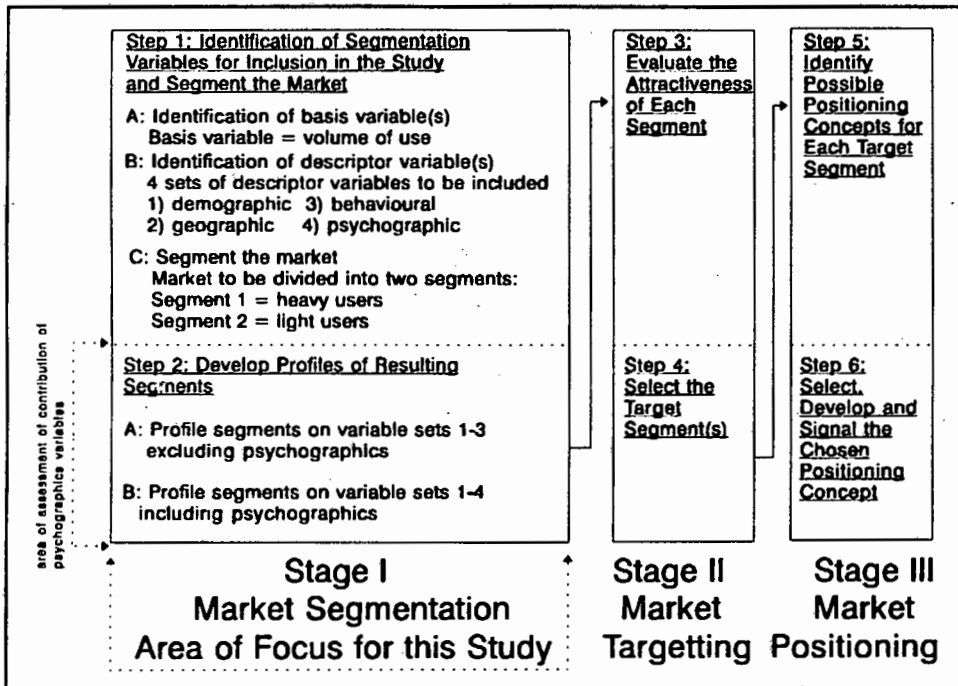
PART II

IMPLEMENTATION OF THE MARKET SEGMENTATION PROCESS

INTRODUCTION

Part II of Chapter 8 addresses the main problem of this thesis, that is, the author will critically assess the contribution of psychographic variables in the profiling stage (Step 2) of a market segmentation study (Refer fig 8.1 below).

Figure 8.1 Identification of Tasks in the Implementation of a Market Segmentation Strategy for the South African Fresh Mushroom Industry



In section I the author will briefly table the results of Step I in the segmentation process (Refer figure 8.1). The fresh mushroom market was segmented (a priori) on the basis of volume of use into two groups - namely a group of heavy users and a group of non-heavy users of fresh mushrooms. Sections 2-4 will focus on Step II in the segmentation process (Refer fig 8.1). Through the use of discriminant analysis and cross tabulations, the contribution of the psychographic measures to identifying and describing the two user groups will be critically addressed. In the final section 5, the author will comment on the reliability and validity issues that pertain to this study.

2. Contribution of Non Psychographic Variables to Segmentation Process.

In section 1 the market was divided into 2 groups:

Group 1 : Heavy Users

Group 2 : Light Users

In order to identify if there were any distinguishing characteristics between these 2 groups that were also related to the basis variable², the author performed discriminant analysis. Initially only the non psychographic variables (Sets 1-3) were included in order to first assess their contribution in the profiling stage of the segmentation process.

2.1 Discriminant Analysis Procedure - Non Psychographic Variables

The technique of discriminant analysis allows one to identify the significant distinguishing characteristics of heavy users versus light users and gain a measure of their relative importance (Affifi et al, 1990). Hence, in the first step of this analysis 200 heavy users were compared with 202 light users on 12 demographic, geographic and behavioural variables. The 12 demographic, geographic and behavioural variables selected are detailed in Table 8.1.

² The readers attention is drawn to Chapter 3, section 7 for the definition of a descriptor variable.

Table 8.1: Classification of Non Psychographic Variables for Discriminant Analysis

VARIABLES	MEASURE	NAME OF MEASURE	Y/N TRANSFORME D	DUMMY VARIABLES
Demo- (1) graphic	age	age	->	age a, age 2 age 3, age 4
	language	lang		
	income	income	->	Y1, Y2, Y3, Y4, Y5, Y6, Y7
	work-status	work	->	wfull, wpart, whome, wune,
	Stage in F.L.C.	househol	>	hmarco, hwidco, hmarc, hsin, hsinb, hmarn, hwid
	No. of children > 16	children		
No. in house-hold	numbhh			
Geo- (2) graphic	Region	region	->	Reg 1, Reg 2
Be- (3) havioural	Most freq. Brand Usage	Mostoft	->	oftd, ofts, oftw.
	Most freq. Usage Situation	Mserve	->	sersalad, serbreak, serstew, sersauce, serveg
	Most freq. Usage Occ.	Mealoft	->	oftbrek, oftlun, oftdin
	Pur-chase loc.	Purchase	->	pursup

The author wishes to draw the readers attention to the following three points:

- 1) There were a number of demographic, geographic & behavioural measures that were NOT interval independent variables. The nominal independent variables of age, income, work, househol,

region, mostoft, mserve, mealoft and purchase were therefore converted to dummy variables in order to perform the discriminant analysis (Refer Chapter 7, Part II).

2) In creating the dummy variables the following measures were grouped into a single category as identified below:

1) Brand used Most Often:

Dummy variables were created for the 3 national brands and an 'all other' category. (The 3 national brands accounted for 81% of all respondents).

2) Most frequent Usage Situation:

Dummy variables created for stews, sauces, vegetable, salads, breakfast and an 'all other' category.

(The above 5 usage situations selected accounted for 70% of respondents).

3) Most frequent Usage Occasion :

Dummy variables created for breakfast, lunch, family dinner and an 'all other' category.

(The above 3 usage occasions accounted for 88% of respondents).

4) Purchase Location :

Dummy variables created for supermarkets and an 'all other' category. 79% of respondents used supermarkets.

3) The following demographic, behavioural & geographic variables were omitted from the analysis purposefully:

- 1) Aided awareness on all brands
- 2) All brands ever used
- 3) Other usage situations
- 4) Other meal occasions
- 5) Area zones

The reasons were two-fold:

Firstly, it was felt that the excessive degree of detail provided by certain of the above variables was not necessary.

Secondly, 'all multiple response variables' were omitted when there was a 'single - most frequent' response alternative. (For example, 'most frequent' usage situation and 'other' usage situation.)

The multiple responses would not only have created further complications in coding but were already represented by the single mention alternative.

2.2 Identification of Significant Distinguishing Characteristics of the Two User Groups Based on NON-PSYCHOGRAPHIC VARIABLES

Based on the 12 non psychographic variables, discriminant analysis was performed on the two user groups.

A copy of the BMDP7M stepwise discriminant analysis runstream is in Appendix D. Briefly the steps followed were as follows:

At Step 0, the largest F to enter is for 'serveg' so it enters at Step 1; 'hmarco' enters next at Step 2, 'hmarc' at Step 3, 'oftdin' at Step 4 and 'pursup' at Step 5. After this step, no more variables enter since all the F to enter levels are less than 4.

A discussion and interpretation of the findings follows.³

Firstly the author examined the descriptive measures obtained for each of the 2 groups.

Appendix F lists the mean and standard deviations for each variable in both groups.

³ The author wishes to note that in section 2, the findings will simply be presented. In section 4, when profiling the segments on their distinguishing characteristics, interpretation of the findings will be detailed.

The descriptive variables provided the first indications of which variables distinguished between heavy users and light users. Large differences in means on a particular variable suggest that the variable is an important discriminator between the groups.

Taking the above into account, the data reveals that the heavy user group tends to have a higher percentage of people married with children, larger households and non-working housewives; a slightly higher skew to the upper income groups, english speaking and older age categories; and a lower likelihood of purchasing exclusively at supermarkets. Heavy users are more likely to use mushrooms most frequently as a vegetable and at family dinners.

Light users in contrast appear more likely to fall into the two younger age groups (< 49 yrs) and in the lower four income groups. Light users are most likely to purchase at supermarkets and use mushrooms in stews.

The standard deviations of the 2 groups are similar except for three variables : Number in household (numbhh), Serve as vegetables (serveg), and married with older children (hmarco) where they are only slightly different.

The above discussion contributed somewhat to the author's understanding of the differences between the 2 groups. At this stage, however, the variables were viewed in isolation and it was therefore necessary to proceed to the next step to assess the results of the discriminant analysis in which all 12 variables were analyzed simultaneously.

Discriminant analysis produces 3 measures that identify which variables distinguish between the 2 groups and the degree of importance of these variables. These are:

- 1) The F. Matrix
- 2) The Discriminant Function and Discriminant Coefficients.
- 3) The Classification Matrix.

1) The F. Matrix

In order to comment on the F. Matrix it is first necessary to examine Table 8.2. This table provides a list of the significant demographic and behavioural variables in order of importance based on their F to enter values.

Table 8.2 SUMMARY Table Discriminant Analysis - Non psychographic Variables

STEP NO.	VAR. ENTERED REMOVED	F VALUE TO ENTER	NO. OF VAR INC	U- STAT	APPROX F - STAT.	DEGREE OF FREEDOM	
1	230 serveg	12,849	1	0,9689	12,848	1,0	400,0
2	315 hmarco	6,714	2	0,9528	9,873	2,0	399,0
3	317 hmarc	7,960	3	0,9342	9,350	3,0	398,0
4	285 oftdin	6,925	4	0,9181	8,848	4,0	397,0
5	286 pursup	4,649	5	0,9075	8,073	5,0	396,0

There are 5 variables whose F to enter value was greater than 4; these 5 variables are significant in the classification of mushroom users into the heavy group or light group and significant in distinguishing between consumers in the heavy user group and light user group.

Of the five significant variables, three are sourced from behavioural measures and two are sourced from demographic measures.

Specifically the 3 behavioural variables are:

- 1) Serveg - Usage situation variable. It specifically refers to those respondents who use mushrooms most frequently as a vegetable accompaniment
- 2) Oftdin - Usage occasion variable. It specifically refers to those respondents who serve mushrooms most frequently at family dinners.

- 3) Pursup - Purchase location variable. It specifically refers to those respondents who purchase their mushrooms most frequently from a supermarket.

The two demographic variables both refer to stages in the family life cycle. These are:

- 1)hmarc - refers to those respondents who are married with children at home.
 2)hmarco- refers to those who are married with older children who have already left home.

Table 8.2 also reveals that the behavioural variable - 'serveg' was the most significant variable that distinguished between heavy users and light users.

It may be concluded from Table 8.2 that of the twelve non psychographic variables included in the discriminant analysis, five variables (three behavioural and two demographic) were found to be significant in distinguishing between heavy users and light users of mushrooms.

In order to assess how effective these variables were in classifying mushrooms consumers as either heavy users or light users it is necessary to refer to the F-Matrix in Figure 8.3

Figure 8.3 F-Matrix - Discriminant Analysis - Non -Psychographic Variables

	Heavy Users	Degrees of freedom
Light Users	8,07	5 396

In simplified terms, the F. Matrix calculates the mean value for heavy users based on the five significant variables and the mean value for light users based on the significant variables. It then computes the difference between the 2 means (F Statistic) as a measure of how different the 2 groups are.

In this case the Value of 'F' at the last step is given as 8,07 with 5 and 396 degrees of freedom (Refer Table 8.2).

A large significant 'F' indicates that the means of the 2 groups are different on the significant variables and hence the variables are important in separating the 2 groups : A small F indicates that the significant variables are essentially worthless as predictors of group membership. These variables would therefore, by definition, not be useful descriptor variables in the segmentation process.

Since the F Statistic = 8,07 it indicates that there does appear to be at least some difference between the 2 groups based on the demographic and behavioural variables. In order to further evaluate this result (based on the non psychographic variables only) it shall be compared with the result in the next section (based on the inclusion of psychographic variables).

2) The Discriminant Function and Discriminant Coefficients

The discriminant function is useful for the classification of respondents into either the heavy user or light user group and provides an indication of which variables contribute to the classification.

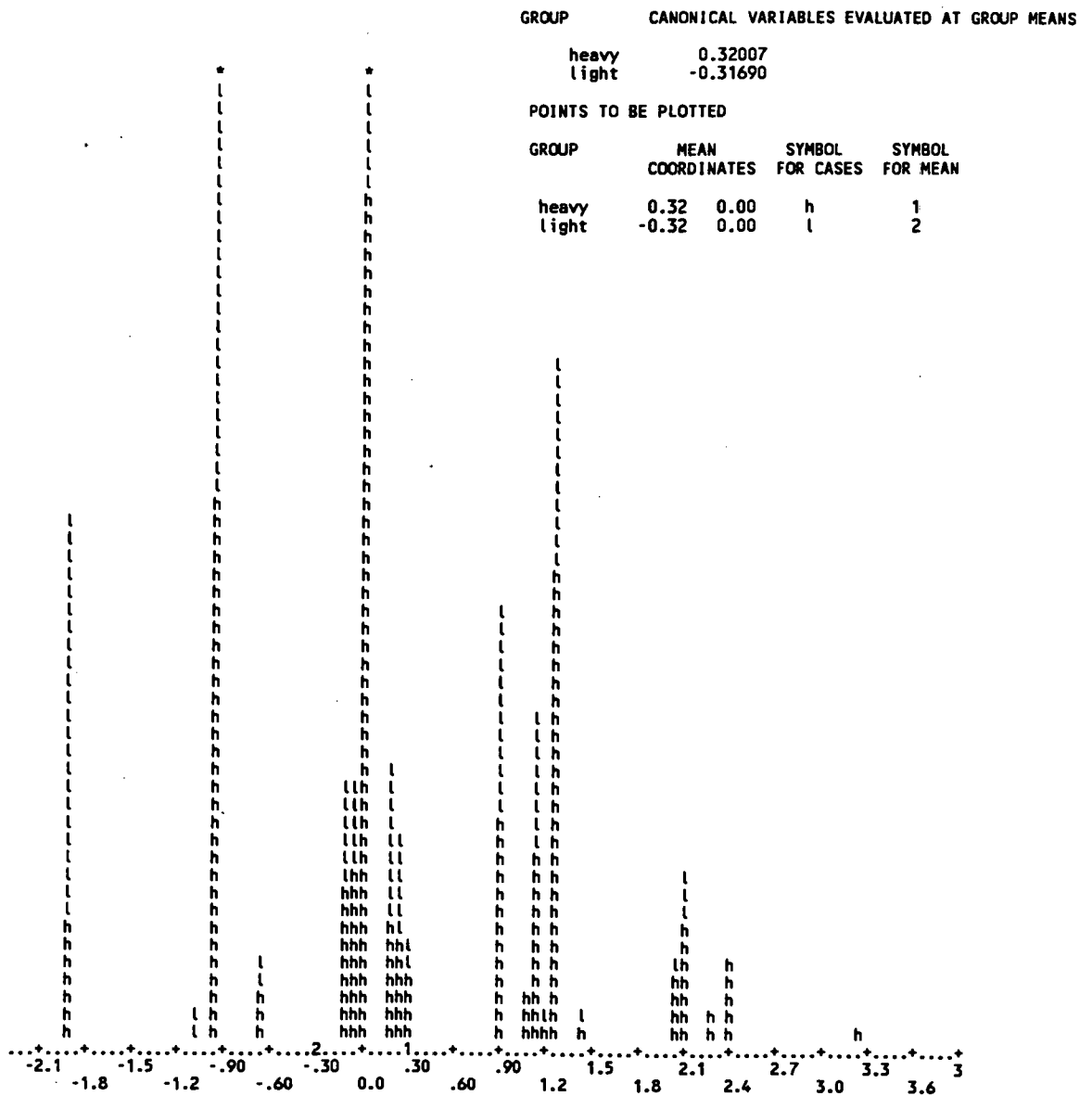
The **discriminant function** based on the non psychographic variables for this study reads as follows:

$$Y = -1,05581 + 1,24107(\text{Serveg}) + 0,94936(\text{Oftdin}) - 0,87231(\text{Pursup}) + 2,12016(\text{hmarco}) + 0,99055(\text{hmarc})$$

The author shall first examine the discriminant function in terms of its classification 'powers' as detailed above. Group membership is based on each respondents' score on the discriminant function. Specifically if a

persons score is close to the mean of the heavy users, then the respondent would be classified as a heavy user and vice versa. Calculating the discriminant function for each respondent results in the canonical variables. These have been plotted on histograms in Figure 8.4. The heavy user group is labelled 'h' and the light group is labelled 'l'.

Figure 8.4 Histogram of Canonical Variables (Non-Psychographic Measures)



From Figure 8.4 it can be seen that the histogram is somewhat spread out but there is evidence of merging between heavy and light users - specifically one cannot see two clearly discernable histograms for the two user groups. This result shall be compared in the next section based on the inclusion of the psychographic variables.

The discriminant function also indicates the relative contribution of each variable to the classification of respondents into either the heavy user group or light user group. In order to assess the contribution of each of the five significant non psychographic variables it is necessary to examine their discriminant coefficients calculated from the discriminant function (Refer Table 8.3).

Table 8.3 Discriminant Coefficients for the Significant Demographic and Behavioural Variables

VARIABLES	COEFFICIENTS FOR CANONICAL VARIABLES
230 serveg	1.24107
285 oftdin	0.94936
286 pursup	-0.87231
315 hmarco	2.12016
517 hmarc	0.99055

From Table 8.3 it may be concluded that four of the five variables are significant in distinguishing heavy users (viz serveg, oftdin, hmarco & hmarc) while only 1 variable (pursup) is significant in distinguishing light users.

3) The Classification Matrix

A third measure to assess the significance of the non psychographic variables in the identifying and profiling of heavy users and light users is the Classification Matrix - Refer Table 8.4

Table 8.4 The Classification Matrix

GROUP	PERCENT CORRECT CLASSIFIED	NUMBER OF CASES CLASSIFIED INTO GROUP -	
		HEAVY	LIGHT
Heavy Users	70.0	140	60
Light Users	52.5	96	106
TOTAL	61.2	236	166

Table 8.4 is an indication of how successful the discriminant function would have been in classifying the same observations used to form the function back into their respective group.

Specifically **140 respondents** were correctly classified as heavy users and **106 respondents** were correctly classified as light users. The total number of correct predictions based on the five significant demographic and behavioural variables only is $140 + 106 = 246$. Since there were 402 observations in all $246/402 = 61,2\%$ is a measure of how effective the demographic and behavioural variables were in predicting whether respondents were heavy users or light users.

The total percentage correctly classified is therefore a summary measure of the value of the non psychographic variables in predicting group membership. Table 8.4 reveals that the total percentage correctly classified based on the non psychographic variables = 61,2%

The classification matrix in Table 8.4 uses the same observations to examine the ability of the discriminant function to correctly classify

observations as were used to create the discriminant function. Such a procedure can however often produce an upward bias in the percentage of respondents correctly classified.

A method used to overcome this problem is called the Jackknife Classification procedure.

In this method, 1 observation from the first group is excluded and the difference is then computed on the basis of the remaining observations. This procedure is then repeated for each observation. According to Affifi and Clark this method should produce nearly unbiased estimates (Affifi and Clark, 1990 p 292).

Table 8.5 reveals results of the Jackknife Classification procedure.

Table 8.5 Jackknifed Classification Based on Non psychographic Variables

GROUP	PERCENTAGE CORRECT	NUMBER OF CASES CLASSIFIED INTO GROUPS	
		HEAVY	LIGHT
Heavy	46.0	92	108
Light	52.5	96	106
TOTAL	49.3	188	214

From Table 8.5 it can be seen that only **49,3%** of the respondents were correctly classified - specifically 46% of heavy users and 52% of light users.

2.3 Summary of Discriminant Analysis Findings - Non psychographic Variables

Based on the three measures detailed in section 2.2 the author concludes as follows:

Discriminant analysis performed using only the non psychographic variables

identified five variables that were significant in distinguishing heavy users of mushrooms from light users of mushrooms.

Specifically three of these variables were sourced from behavioural measures and the remaining two were sourced from demographic measures.

The most significant variable in discriminating between these two groups was 'serveg'. This is a behavioural variable that measures the most frequent usage application of mushrooms as a vegetable accompaniment.

Based on the Jackknife Classification Matrix these five variables correctly classified only 49% of respondents into either the Heavy user group or Light user group. The total unexplained variance based only on non psychographic variables = 51%.

In line with the objectives of this study, these findings had to be compared with those based on the addition of the psychographic variables to the discriminant analysis. This will be discussed in the following section.

3. Contribution of the Psychographic Variables to the Segmentation Process

In order to assess the contribution of the psychographic variables to the segmentation process it was necessary to repeat the discriminant analysis but to include in the analysis (in addition to the 12 non psychographic variables)the psychographic variables.

3.1 Discriminant Analysis Procedure - Addition of the Psychographic Variables

One hundred and twenty three psychographic variables were selected for the second phase of the discriminant analysis. These are detailed in Table 8.6 overleaf.

Table 8.6 Classification and Description of Psychographic Variables for Discriminant Analysis

CLASS	TYPE	VAR. NAME	TRANSFORMED	DUMMY VARIABLES
Psychographics	Shopping styles	habit to fresh (Ques. 14, 1-15) All 15 Variables included		
	Benefits	firstb	->	benease, benhealt, bentaste, benextra, benver
	Product Attribute Assoc.	firsta	->	abrand, aprice, aqual, afresh
	Brand attribute Assoc.	fsilver fdenny fwool qsilver qdenny qwool esilver edenny ewool csilver cdenny cwool lsilver ldenny lwool msilver mdenny mwool psilver pdenny pwool		
	Category Beliefs and percept.	'place' to 'extraord' (Ques 18, 1-20) All 20 var included		
	Value Orient.	'Nutrit' to 'response' (Ques.20; 1-35) All 35 Var included		
	Role Percep.	'invite' to 'compli' (Ques.19; 1-30) All 30 var included		

As was noted by the author in section 2.1, discriminant analysis requires interval independent data. The nominal independent variables measuring benefits and product attribute associations were therefore converted to dummy variables in order to perform the discriminant analysis (Refer Table 8.6)

In creating the dummy variables the following measures were grouped into a single category as identified below:

- 1) Primary benefit sought:
Dummy variables were created for the five most important benefits sought (ease of use, health, taste, adds something extra, versatility and an 'all other' category). The top five benefits accounted for 84% of respondents.

- 2) Most important product attribute associated with fresh mushrooms:
 - Dummy variables were created for the 4 top product attribute ratings of freshness, brandname, quality, price and an 'all other' category. The top 4 ratings accounted for 98% of respondents.

- 3) The following psychographic variables were omitted purposefully from the data analysis:
 - 2nd and 3rd benefit ratings
 - 2nd and 3rd product attribute associations
 - Regional brand attribute associations.

The rationale is as per that detailed in Section 2.1

A copy of the BMDP stepwise discriminant analysis run-stream is found in Appendix E.

Briefly the steps followed were as follows:

At Step 0, the largest F to enter is for 'list' so it entered at Step 1. 'Luxury' enters next at Step 2, 'everyday' at Step 3, 'serveg' at Step 4, 'occasion' at Step 5, 'hmarco' at Step 6, 'hmarc' at Step 7, 'budget' at Step 8, 'ill' at Step 9, 'fibre' at Step 10, 'ofts' at Step 11, 'single' at Step 12, 'pursup' at Step 13, 'benease' at Step 14,. A discussion of the findings follows in section 3.2⁴

3.2 Identification of Significant Characteristics Based on the Inclusion of Psychographic Variables

The first step in analyzing the data was to examine the descriptive measures (means and standard deviations) for each of the two groups (Refer Appendix G).

Examining the 'larger differences' between the means gives one the first indication of which variables distinguish between members of the 2 groups. It appears that the heavy user segment are more likely to rate appearance and freshness as being important determinants of purchase, are more likely to pay a premium for the best quality product, are more likely to perceive little difference between the brands, are more likely to have mushrooms on their shopping lists, and are more willing to try new varieties. They are also more likely to view mushrooms as an everyday vegetable and are more likely to serve mushrooms in place of red meat. Heavy users are more likely to be avid lovers of home cooking; specifically they are more likely to have cooking as their major hobby, place greater importance on their cooking, offer advice on cooking, and be creative with their cooking.

Heavy users appear to place greater value on calorie and cholesterol content of food, avoid red meat to a greater extent, and stress the need to include raw product in their diet. Heavy users are more likely to perceive the main benefit in

⁴ The author wishes to note that in section 3.2 the findings will be presented and compared with those obtained in section 2. The interpretation of the significant distinguishing characteristics will, however, be detailed in section 4 where the two user groups are profiled

mushrooms as their versatility and the fact that they are 'healthy'. Heavy users are more likely to rate freshness as the most important attribute in influencing purchase.

The light users are more likely to purchase the lowest priced mushrooms on the shelf or purchase mushrooms when on special -more likely to favour bulk packs, and purchase more on impulse. Light users are more likely to perceive a higher degree of risk in purchase and consumption of mushrooms. They are also more likely to perceive mushrooms to be a luxury and for use at special occasions only.

Light users are less likely to enjoy cooking and are less confident home cooks - specifically they are more likely to seek advice on cooking, confine themselves to trying only simple new recipes, feel disappointed if their dinner is a flop and judge themselves by the meals they prepare.

Light users are more likely to feel responsible for providing nutritional food for the family, more likely to use a budget when planning and preparing meals and more likely to be economy minded and place greater emphasis on selecting products that offer good value for money. They also appear to be more 'time conscious' - more likely to favour quickly prepared meals and make greater use of microwave and convenience foods.

Light users are more likely to perceive the main benefits in mushroom consumption to be ease of preparation, taste and the fact that they add that 'something extra' to a dish.

Light users are likely to rate price and well known brand name as important product attributes influencing their purchase.

The standard deviations in the two groups are similar except for the variables:

Place	'I would serve mushrooms in place of red meat'
Everyday	'Mushrooms are an everyday vegetable'

Occasion	'Mushrooms are for use at special occasions only'
Quality	'Willing to pay extra for best quality brand on shelf'
Time Cook	'spend most of my free time at home cooking for family and friends'

However, even in the case of the above variables, there were only slight differences in the standard deviations recorded.

Having examined the descriptive data the next step was to assess the contribution of the psychographic variables to the segmentation study. In order to do this the F Matrix, the Discriminant function and the Classification matrix were examined.

(1) F Matrix

The Summary Table 8.7 lists all the non psychographic and psychographic variables that are significant in distinguishing between heavy users and light users of mushrooms.

The significant variables are ranked in order of importance based on their F to enter value.

Table 8.7 Summary Table Discriminant Analysis - Non- Psychographic and Psychographic Variables

STEP NO.	VAR. ENTERED	F VALUE TO ENTER	NO. OF VAR. INCL	U-STATS.	APPROX F. STATS.	DEGREES OF FREEDOM	
1	74 list	57,056	1	0,8752	57,056	1,0	400,0
2	164 luxury	35,125	2	0,8044	48,524	2,0	399,0
3	161 everyday	11,249	3	0,7822	36,930	3,0	398,0
4	280 serveg	9,689	4	0,7636	30,724	4,0	397,0
5	171 occ	8,528	5	0,7475	26,751	5,0	396,0
6	315 hmarco	7,004	6	0,7345	23,798	6,0	395,0
7	317 hmarc	6,548	7	0,7225	21,620	7,0	394,0
8	212 budget	6,777	8	0,7102	20,042	8,0	393,0
9	177 ill	5,443	9	0,7005	18,622	9,0	392,0
10	176 fibre	5,538	10	0,6907	17,507	10,0	391,0
11	319 ofts	5,244	11	0,6816	16,565	11,0	390,0
12	197 simple	4,971	12	0,6730	15,754	12,0	398,0
13	286 pursup	4,945	13	0,6645	15,070	13,0	388,0
14	287 benease	4,183	14	0,6574	14,407	14,0	387,0

Table 8.7 shows that there are 14 variables whose F value is greater than 4. These are the 14 significant variables that are contributing to the classification of and hence differences between heavy users and light users.

A Description on the 14 significant variables is provided in Table 8.8 overleaf:

Table 8.8 Classification and Description of Significant Non Psychographic and Psychographic Variables

VAR. NAME	VAR. TYPE	MEASURE	EXPLANATION OF VARIABLE
List	P	Shopping Behaviour	Mushrooms are always on the shopping list
Luxury	P	Category Belief	Mushrooms are a luxury
Everyday	P	Category Belief	Mushrooms are just an everyday vegetable
Serveg	B	Usage Situation	Most frequently use mushrooms as a vegetable accompaniment.
Occasion	P	Category Belief	Mushrooms are only for use at special occasions or when entertaining only
Hmarco	D	Stage in F.L.C.	Married with older children
Hmarc	D	Stage in F.L.C.	Married with children at home
Budget	P	Value Orientation	I work to a set budget when shopping and planning family meals
Ill	P	Category Belief	Can't take a chance with mushrooms, if they go off they could make you ill
Fibre	P	Category Belief	Mushrooms are high in fibre
Ofts	B	Brand Usage	Brand used most often = Silverstream
Simple	P	Cooking Style	Select only simple recipes from magazines for which one has the ingredients
Pursup	B	Purchase Location	Purchase mushrooms most frequently from the supermarket
Benease	P	Benefit	Primary Benefit - Mushrooms are quick, easy to prepare and use

P = Psychographic D = Demographic B = Behaviour
 Variables are ordered based on F to enter values in Table 8.7

Table 8.7 highlights that 9 of the 14 significant variables are Psychographic variables. In addition, the 3 most significant discriminating variables (i.e. those

with the highest F to enter) are all psychographic.

- Specifically :
- (1) List - a measure of shopping behaviour specific to the category.
 - (2) Luxury - category belief
 - (3) Everyday - Category belief

Of the remaining 6 significant psychographic variables, 3 were measures of category beliefs, 1 each were measures of respondents value orientations towards home cooking, role perceptions with respect to home cooking and primary benefits sought from purchasing fresh mushrooms

Five non psychographic variables were found to be significant in distinguishing heavy users from light users, 2 were demographic measures (both refer to stage in the family life cycle) and 3 were behavioural measures. (specifically usage situation, brand usage and purchase location).

The author wishes to draw attention to the fact that when the psychographic variables were added to the discriminant analysis a 'new' behavioural variable emerged as a significant discriminator between the heavy users and the light users. Specifically when only the 12 non psychographic variables were included in the discriminant analysis, 5 variables were found to be significant. When the psychographic variables were added to the analysis, 5 demographic and behavioural variables were still found to be significant; however one had been removed (oftdin) and a new behavioural variable was entered (ofts). The reason for this occurrence is most probably due to inter-correlation between the non psychographic and psychographic variables.

In order to assess how effective the 14 significant psychographic and non psychographic variables were in distinguishing between heavy and light users of mushrooms it was necessary to examine the F Matrix in Figure 8.5

Figure 8.5 The F Matrix

	Heavy Users	Degrees of freedom
Light Users	14,41	14 387

The F Matrix calculates the mean values for heavy users and light users based on the 14 significant variables. It then computes the difference between the 2 means (F Statistic) as a measure of how different the 2 groups of mushroom consumers are. It follows logically that a large significant F Statistic indicates that the 2 groups are significantly different from one another and that the variables are therefore helpful in separating the 2 groups of consumers.

The F Statistic in Figure 8.5 is equal to 14.41 with 14+387 degrees of freedom

This indicates that there is at least some significant difference between the two groups based on the inclusion of non psychographic and psychographic variables in the analysis. In order to assess the contribution of the psychographic variables in distinguishing between heavy users and light users of mushrooms this result must be compared with the F Statistic based only on the inclusion of non psychographic variables. (Refer Section 2.2 Figure 8.3)

Table 8.9 Comparison of the F Statistic

F STATISTIC NON PSYCHOGRAPHIC VARIABLES ONLY	F STATISTIC NON PSYCHOGRAPHIC AND PSYCHOGRAPHIC VARIABLES
8,07 with 5+396 degrees of freedom	14.96 with 13+388 degrees of freedom

From Table 8.9 it is clear that when the psychographic variables were included in the analysis, the F Statistic score rose from 8,07 to 14,96. **Based on the F. Matrix, it appears that the psychographic variables significantly contributed to distinguishing between the two groups of users and helped further separate or differentiate the two groups from one another.**

2) The Discriminant Function

The second measure the author focused on, was the discriminant function. The discriminant function based on the significant demographic, behavioural and psychographic variables reads as follows:

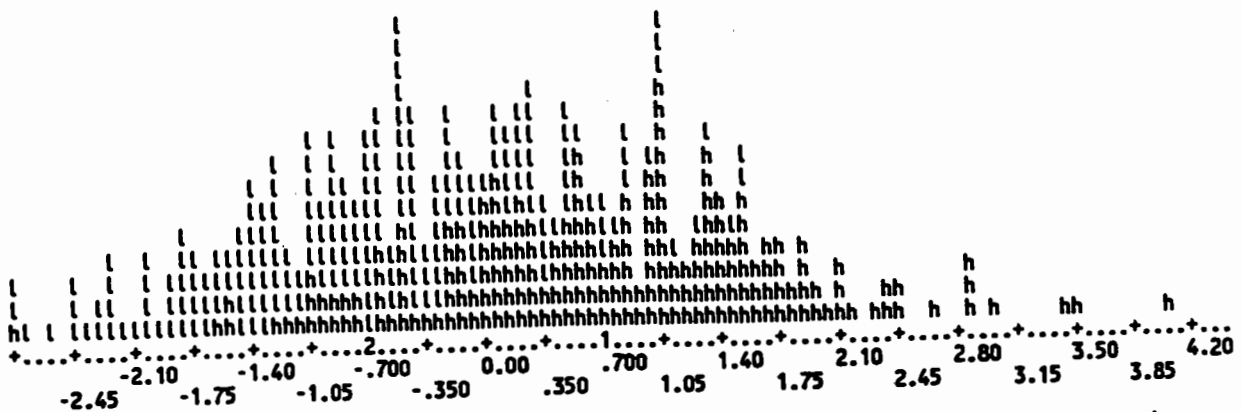
$$F = 2,34845 + 0,49991(\text{list}) + 0,28796(\text{everyday}) - 0,38564(\text{luxury}) - 0,27704(\text{occasion}) - 0,26880(\text{fibre}) - 0,24456(\text{ill}) - 0,20211(\text{simple}) - 0,19621(\text{budget}) - 1,00393(\text{ofts}) + 0,59484(\text{serveg}) - 0,47534(\text{pursup}) - 0,43625(\text{benease}) + 1,01081(\text{hmarco}) + 0,50063(\text{hmarc})$$

The discriminant function plays 2 roles - it is useful for both classifying respondents into the usage groups and for indicating which significant variables (and to what degree and direction) contribute to the classification.

Firstly the discriminant function shall be examined to evaluate the contribution of the psychographic variables for classifying respondents into either heavy user or light user groups. This required calculating the discriminant function (based on the inclusion of the psychographic variables) for each individual. The results are the canonical variables which are plotted in the Histogram in Figure 8.6 overleaf:

Figure 8.6 Histogram of Canonical Variables (Psychographic Measures Included)

GROUP		CANONICAL VARIABLES EVALUATED AT GROUP MEANS			
heavy	light	0.72372	-0.71655		
POINTS TO BE PLOTTED					
GROUP	MEAN COORDINATES	SYMBOL FOR CASES	SYMBOL FOR MEAN		
heavy	0.72	0.00	h	1	
light	-0.72	0.00	l	2	



In order to assess the contribution of the psychographic variables to the classification of respondents into the two user groups the author compared the histograms in Figure 8.6 with the histograms based purely on non psychographic variables. (See Section 2.2 Refer to Figure 8.4) This comparison reveals that the two histograms in fig 8.6 are far more clearly defined. Specifically the light users are grouped predominantly to the left and are clearly discernable from the heavy users who are grouped predominantly to the right.

The histograms are therefore further indication that the psychographic variables have helped to identify and classify the respondents into the two usage groups.

The discriminant function also indicates the relative contribution of each variable to the classification of respondents into either the heavy user group or light user group. The significant discriminant coefficients are listed in Table 8.10.

Table 8.10 Discriminant Coefficients for Significant Non Psychographic and Psychographic Variables

Var No.	Variable Name	Variable Type	Coefficients for Canonical Variables
74	List	P	0,49991
161	Everyday	P	0,28796
164	Luxury	P	-0,38564*
171	Occasion	P	-0,27704*
176	fibre	P	-0,26880*
177	Ill	P	-0,24456*
197	Simple	P	-0,20211*
212	Budget	P	-0,19621*
319	Ofts	B	-1,00393*
280	Serveg	B	0,59484
286	Pursup	B	-0,47534*
287	Benease	P	-0,43625*
315	Hmarco	D	1,01081
317	Hmarc	D	0,50003

P = Psychographic

B = Behavioural

D = Demographic

* Denotes that the variable distinguishes a light user

Referring to Table 8.10, 9 variables, of which 7 are psychographic measures, are significant in distinguishing light users.

The remaining 5 variables, of which 2 each are demographic and psychographic and one is behavioural, are significant in distinguishing heavy users.

The discriminant coefficients therefore provide further evidence of the contribution of the nine significant psychographic variables in identifying and distinguishing heavy users from light users. These measures shall be further discussed when profiling the segments in section 4.

3) Classification Matrix

A third measure of the contribution of psychographic variables to the segmentation process is to assess the degree of success of the discriminant function.

To assess this, it is necessary to analyze the data in the cross classification matrix and jackknife classification matrix presented in Tables 8.11 and 8.12 below:

Table 8.11 Classification Matrix

GROUP	% CORRECT CLASSIFIED	NO.OF CASES CLASSIFIED INTO GROUP -	
		HEAVY	LIGHT
Heavy	76,0	152	48
Light	77,2	46	156
TOTAL	76,6	198	204

Table 8.12 Jackknife Classification Matrix

GROUP	% CORRECTLY CLASSIFIED	NO. OF CASES CLASSIFIED INTO GROUP -	
		HEAVY	LIGHT
Heavy	73,0	146	54
Light	76,2	48	154
TOTAL	74,6	194	208

Referring to Table 8.11, 154 respondents were correctly classified as heavy users and 157 respondents were correctly classified as light users. The total number of correct predictions based on the significant psychographic, demographics and behavioural variables was therefore $154 + 157 = 311$ respondents. Since there were 402 respondents in total $311/402 = 77,4\%$.

The Jackknife Classification, Table 8.12, reveals that there were 148 correctly predicted heavy users and 151 correctly predicted light users. The total percentage correctly classified based on the 14 variables is 74,4%. This is a measure of the effectiveness of the 14 significant psychographic and non psychographic variables in predicting whether respondents were heavy users or light users .

In order to assess the contribution of the psychographic variables to the classification of respondents as either heavy user or light users it is necessary to compare the results in Table 8.12 with those obtain in Phase 1 of the discriminant analysis (Refer to Section 2.2 Table 8.5)⁵

The total percentage correctly classified based on the significant demographic and behavioural variables only was equal to 49,3%.

⁵ The jackknife classification is the more reliable measure as it removes upward bias and will therefore be used as the basis for comparison.

Specifically, 46% of respondents were correctly classified as heavy users and 52% were correctly classified as light users.

The total percentage correctly classified based on the inclusion of the psychographic measures increased to 74,6%. Specifically 74% of respondents were correctly classified as heavy users and 75% of respondents were correctly classified as light users. Comparing the two tables, the total percentage of explained variance rose by 51,3% with the inclusion of the psychographic measures.

3.3 Summary

Section 3 detailed the findings of the second phase of the discriminant analysis. The results showed that 14 variables were found to be significant in distinguishing between heavy users and light users of fresh mushrooms.

Of the 14 significant variables, 9 were psychographic measures versus only 5 non psychographic measures. In addition, the 3 most significant measures that distinguished between heavy users and light users of fresh mushrooms were all psychographic measures.

Three measures were employed by the author to assess the contribution of the psychographic measures. These were the F.Matrix, the discriminant function and the jackknife classification matrix. All 3 measures revealed that the psychographic variables had contributed significantly to identifying and distinguishing between the heavy users and the light users of fresh mushrooms.

In the following section of this Chapter, the author will assess the contribution of the significant psychographic variables (identified in phase II of the discriminant analyses) to the profiling and describing of the two user groups.

4. Profiling of the Segments

The objective of this Section is to assess the descriptive role of the significant psychographic variables (identified in the discriminant analyses) in the profiling of the two user groups.

In Chapter 3 the author highlighted that in the second step of the market segmentation process, segments should be profiled on their distinguishing characteristics. The author wishes to draw attention to the fact that it is only those variables that were found to significantly differentiate between the groups that should be used in the profiling process. Kottler comments as follows:

'Each cluster must now be profiled in terms of its **DISTINGUISHING** attitudes, behaviour, demographic, psychographic and media consumption habits' (Kottler, 1988 p 279-280).

In addition it was highlighted in Chapter 3 that the descriptor variables must be correlated to the segmentation basis variable - in this case volume of use. The procedure of discriminant analysis ensures that this criteria was met (Refer Chapter 7, Part II) Cravens comments as follows.

'The objective of profiling segments is to identify the characteristics that are highly correlated to the segmentation basis variable'(Cravens, 1991).

These characteristics then by definition become the significant descriptors of the market segments.

In this section, the author will:

Profile the two groups of respondents i.e. the heavy users and the light users on their significant distinguishing characteristics. In order to assess the contribution of the psychographic variables to this process it will be divided into two stages. In the first stage the author will profile the segments only on the five significant demographic and behavioural variables

established in phase 1 of the discriminant analysis. In the second stage the author will profile the segments on all 14 significant psychographic, demographic and behavioural variables established in phase 2 of the discriminant analysis and then comment critically on the contribution of the psychographic variables to the resulting segment profiles.

4.1 Profiling of Market Segments Based on Significant Non Psychographic Variables only

In order to profile the 2 user groups on the 5 significant demographic and behavioural variables a simple cross-tabulation analysis was performed. The results are presented in Tables 32-35 in appendix H. A summary analysis is presented in Table 8.13.

Table 8.13 Summary Analysis - Non Psychographic Variables

VARIABLE TYPE	MEASURE	VARIABLE NAME	HEAVY USERS	LIGHT USERS
Demo-graphic	Family Life Cycle	Hmarco Hmarc	(76,5%) of H.U. are married with children either at home or grown up	60% of L.U. are married with children. There are comparatively higher % of L.U. who are single/widow or married with no children
Behaviour	Usage Situation.	Serveg	30% of H.U. use mushrooms most frequently as a vegetable. A further 17% cited salads and 10% cited stews, as the most frequent usage application.	L.U. most frequently used mushrooms for stews (17%) and salads(16%). Veg. accomp. was rated by only 15% (half that of H.U.
	Usage Occasion	Oftdin	75% of H.U. use mushrooms mainly at family dinner	all... 63% of L.U. would also serve mushrooms most frequently at family dinner but a higher % of L.U.'s would reserve their use primarily for entertaining
	Purchase location	pursup	H.U. most frequently purchase at supermarkets (74%) and greengrocers (26%)	L.U. purchase almost exclusively at supermarkets (84%). Only 15% would purchase mushrooms at greengrocer or cafe.

(The following abbreviations are used in this table: Heavy Users = H.U.; Light Users = L.U.; Veg = Vegetable; freq. = frequent; % = percentage)

Referring to Table 8.13 the author has drawn the following profiles of the two user groups based on the significant non psychographic variables only.

4.1.1 Profile of Heavy Users Based on Non Psychographic Variables

Heavy users are predominantly married with children. Heavy users use mushrooms most frequently as a plain vegetable accompaniment to meat etc (as they would use other vegetables such as peas, carrots etc.) Salads are also a popular usage application. Heavy users consume mushrooms mainly at their family dinners. In the authors opinion, family dinners are probably a regular occurrence based on their stage in the family life cycle. Heavy users purchase mushrooms mainly at supermarkets and greengrocers.

4.1.2 Profile of Light Users Based on Non Psychographic Variables

60% of light users are married with a family but a further 40% do not fall into the typical 'middle stage' of the family life cycle. Specifically there are more single people and young married couples in the light user group.

Light users primarily use mushrooms in casseroles and salads. While 63% of light users most frequently serve mushrooms at family dinners, the remainder (37%) would reserve their use for entertaining/braai's etc. The author hypothesizes that there could be a connection between this and the stage in family life cycle. Specifically, since a higher proportion of light users are single/no family they may not prepare as many 'traditional family dinners of meat and vegetables' and therefore have more cause to use mushrooms when entertaining.

Purchase is confined amongst light users almost exclusively to supermarkets.

4.1.3 Summary - Non Psychographic Profile

From Section 4.1.1 and 4.1.2 the author was only able to draw a limited profile of the 2 segments based on the 5 significant demographic and behavioural variables. The author was able to comment on the groups in

terms of purchase location, usage occasion and situation and in terms of stages in the family life cycle. The questions that immediately raise themselves are: Is such information sufficient on which to base a marketing strategy? Could the psychographic variables contribute to a more descriptive and useful profile of the respondents in the segmentation study. If the answer is yes, then this justifies their inclusion in a segmenting strategy. The author will assess this in the next section (4.2).

4.2 Profiling of Market Segments Based on the Inclusion of the Significant Psychographic Variables

The nine significant psychographic variables were cross tabulated with the grouping variable usage. The results are presented in Tables 36-45 in Appendix H. A summary analysis is presented in Table 8.14.

Table 8.14 Summary Analysis - Psychographic Variables

VARIABLE TYPE	MEASURE	VARIABLE NAME	HEAVY USERS	LIGHT USERS
Psycho-graphic	Shopping behaviour	List	66% of H.U.always have mushrooms on their shopping list	Only 32% of L.U. stated that they had mushrooms on their shopping list
	Category Belief	Every-day	40% of H.U. would classify mushrooms as an everyday vegetable	In contrast, almost twice as many L.U. (79%) would <u>not</u> classify mushrooms as an everyday vegetable
	Category Belief	Luxury	A minority of H.U. (27%) perceive mushrooms to be a luxury	58% of L.U.(more than double that of H.U.) perceive mushrooms to be a luxury
	Category Belief	Occasion	Almost all H.U. (95%) disagreed with the belief that mushrooms should only be used at special occasions	19% of L.U. would reserve the use of mushrooms for when entertaining only
	Category Belief	Ill	55% of H.U. still perceive a certain risk, but less so than the L.U.	68% of L.U. still perceive a certain risk in the use & consumption of mushrooms
	Category Belief	Fibre	36% of H.U. thought mushrooms high in fibre	43% of L.U. perceive mushrooms to be high in fibre
	Value Orientation	Budget	Only 46% of H.U. consciously budget when food shopping and play	63% of L.U. work to a set budget when planning and shopping for food
	Role Perception	Simple	Only 45% of heavy users would be conservative in their choice of a recipe	59% of L.U. are conservative in their choice of new recipes.
	Benefit	Benease	22% of H.U. rated 'healthy' aspects of fresh mushrooms as primary benefit for using the product.	24% of L.U. perceive primary benefit in use of mushrooms to be ease of use and preparation.
Behavioural	Brand Usage	Ofts	69% of H.U. purchase the Denny brand most often. A further 7,5% use Woolworths most frequently	While only a small % of the TOTAL sample used the brand Silverstream most often, these respondents were mainly in the Light user category. Specifically 6,4% of L.U. vs only 2,5% of H.U. claimed to use Silverstream most often. The majority of L.U. do however use the brand Denny (71%)

(The following abbreviations are used in this table: Heavy Users = H.U.; Light Users = L.U.; Veg = Vegetable; freq. = frequent; % = Percentage)

Combining the psychographic, demographic and behavioural variables together the following is the resultant descriptive profile of each segment.

4.2.1 Profile of Heavy Users based on the Inclusion of Psychographic Variables

In the author's opinion, heavy users have come to regard mushrooms as more of an 'everyday' necessity and an ordinary vegetable. Mushrooms have become categorized in their minds like other vegetables such as carrots/beans/peas etc. The author bases this conclusion on the first and third strongest discriminating variables. The variable 'list' which established that the majority of heavy users always have mushrooms on their shopping list implying that they perceive it to now be a part of their regular planned purchases.

The third strongest discriminating variable 'everyday' established that the majority of heavy users perceive mushrooms to be just an ordinary vegetable.

Supporting the above finding, heavy users are most likely to eat mushrooms on their own. Specifically heavy users serve mushrooms most frequently as a vegetable accompaniment. In the author's opinion this implies that they can afford to do so as mushrooms are an expensive vegetable per kilogram versus other typical vegetable accompaniments.

The fact that mushrooms are healthy is seen as a primary benefit by heavy users. In the authors's opinion, this could imply that heavy users rate healthy cooking styles as important. This also implies that they have knowledge of the healthy attributes of the product itself.

17% of heavy users also serve mushrooms most frequently in a salad. This implies that they often use the product raw in a 'healthy' application.

Majority of users in this category fall into the traditional 'middle stage' of the family life cycle.

4.2.2 Profile of Light Users based on the Inclusion of Psychographic Variables

The light user segment do not perceive mushrooms to be an ordinary vegetable. The majority of these consumers believe that mushrooms are a luxury. Mushrooms are therefore seen as a non necessity by the majority of light users. This is borne out by the second strongest discriminating variable 'luxury'. Mushrooms are therefore perceived by light users to be more of a 'delicacy/or treat'. They certainly do not perceive mushrooms to fall into the category of an everyday vegetable nor would mushrooms always be on their shopping lists.

In line with the above finding, 19 % of light users would mainly use mushrooms when entertaining or when preparing a special meal for a specific occasion. One may deduce that these light users have the perception that mushrooms are too expensive for everyday use and since they are a non-necessity their usage should be confined to only special times when the spending on a luxury product can be justified.

A value orientation that specifically distinguishes light users from heavy users revealed that light users were more likely to budget when planning and preparing family meals. Light users are more likely to take cognisance of the costs of foodstuffs when selecting food. This finding is reinforced by a significant difference in light users' perception with respect to recipe selection. Light users in their selection of new recipes, are more likely to try only simple ones for which they have the ingredients. One may deduce from this that light users are less willing to try the more exotic 'fancy' recipes perhaps because of confidence but more likely because it involves especially purchasing new ingredients which cost money. Again the cost/price factor comes into play.

Ease of use and quick preparation are cited as the primary benefits of cooking with fresh mushrooms by light users. In the authors opinion this may be because the light user is subject to time constraints and therefore

values the convenience of the products. What one can however definitely conclude is that light users do perceive mushrooms to be a convenient product and they attach importance to this fact.

22% of light users also rated taste as an important benefit. Closely allied to this, a further 20% of light users stated that a primary benefit of cooking with mushrooms was that, by their addition, it turned what would be an ordinary dish into something extra special. This again reinforces the earlier findings that light users do perceive mushrooms as 'something special' - A product that by its inclusion enhances the image and taste of the recipe.

Light users serve mushrooms most frequently in stews and salads. Specifically, light users add mushrooms to a recipe rather than consume them alone. Again, this reinforces four earlier conclusions that the author made:

- 1) Firstly, since light users perceive mushrooms to be a luxury it is unlikely they would eat mushrooms 'alone' because of the cost per kilogram factor, but also because, by adding them to a recipe, it extends their use.
- 2) Secondly, light users do not perceive mushrooms as an ordinary vegetable and therefore are unlikely to serve it as an ordinary vegetable accompaniment.
- 3) Thirdly, by adding the mushrooms to the recipe, they perceive that it makes the end result 'extra special' because of the 'special nature' of a mushroom.
- 4) Fourthly, stews are a particularly popular application for light users and again this implies that budget/economy are important factors in influencing the types of meals prepared. Stews are known to be more 'cost efficient' and 'go further' than a typical meat and

vegetable dinner and therefore reinforces the fact that light users are influenced by these factors.

While the majority of light users would most frequently purchase the brand leader there is an indication that certain light users would also purchase Silverstream as their regular brand. Since Silverstream is priced at a discount to Denny and is a relatively well known brand (67% aided awareness) it, in the author's opinion, implies two things:

- 1) Price could be an important factor in influencing brand selection amongst light users. This is likely since they are aware of budgets/cost factors in food planning.
- 2) Brand selection would be confined however, to recognised trade names but not necessarily the brand leader.

Light users perceive a greater degree of risk in the purchase and consumption of fresh mushrooms. Specifically they are more likely to fear that mushrooms could make them ill and therefore they are more likely to treat the selection, use and storage of mushrooms with a greater degree of caution. Similarly, light users are more likely to perceive mushrooms as being high in fibre. In Chapter 8 part I it was shown that a high correlation between perceived fibre content and perceived risk in mushroom consumption exists. This reinforces the finding that light users are more likely to perceive risk with the use of fresh mushrooms.

Light users predominantly confine their purchase of mushrooms to supermarkets. Again this is most likely due to:

- 1) A higher degree of risk perceived in purchase of fresh mushrooms by light users and therefore they confine their purchase to those outlets where only well know brands are stocked.
- 2) Since price/cost is a key factor influencing their habits with regards to food and cooking, they are likely to purchase at

supermarkets since the prices are relatively cheaper than cafes or greengrocers.

4.3 Summary - Profiles of the Segments

The author in Section 4 has profiled the two user groups on their distinguishing characteristics identified through discriminant analysis detailed in Section 2 and 3 of this chapter.

This was done in two separate stages in order to assess the contribution of the psychographic variables to the profiling process.

In the first stage the non psychographic variables highlighted that heavy users were more likely to be in the traditional 'middle stages' of their family life cycle. Heavy users were most likely to use mushrooms as a vegetable and serve mushrooms at family dinners. The light users in contrast tended to serve mushrooms most frequently in a stew or salad and a higher percentage would reserve the use of mushrooms for special occasions only. Almost all light users purchased their mushrooms from supermarkets.

The inclusion of the psychographic variables revealed, in addition to the above findings, that most heavy users tended to always have mushrooms on their shopping list, were more likely to perceive mushrooms as an ordinary vegetable and rated the 'health' benefits as one of the most important reasons for consuming fresh mushrooms. The significant psychographic variables also revealed that light users differed from heavy users in terms of two general measures related to home cooking. Specifically light users were more concerned with costs and budgeting when preparing family meals and light users were more likely to be conservative in their approach to selecting recipes. Reinforcing this finding, light users predominantly perceived mushrooms to be a luxury and were therefore more likely to reserve their use for special occasions only. Light users also perceived a higher degree of risk in their purchase and use of fresh mushrooms. The primary benefit that they sought from the use of fresh mushrooms was their convenience.

Based on the findings presented in sections 2,3 and 4 the author, in the following chapter, will draw conclusions as to the contribution of the psychographic variables in the profiling stage of a segmentation study.

Before however proceeding to the next chapter the author shall address the reliability and validity issues that pertain to this study.

5. Reliability and Validity of the Study

Chapter 6 revealed that psychographic segmentation studies are often criticised on issues pertaining to reliability and validity.

The literature revealed that the majority of criticisms levelled at psychographics pertained to:

- 1) The use of general psychographic statements that were not related in any way to the product under study. (For example, general personality traits)
- 2) The use of psychographic variables as basis variables on which to segment the market. In particular there has been much criticism levelled at the use of cluster analysis for this purpose.
- 3) The lack of any specific hypotheses to guide the selection of psychographic variables for inclusion in a segmentation study.

The author in this section shall address steps that were taken to address the issues of reliability and validity as they pertain to this study. It should however be noted that the roles played by the psychographic variables in this segmentation study were as descriptor variables. The segments were therefore not based on psychographic measures. Issues therefore with respect to reliability and validity that relate to point two above will not be addressed by the author as they do not pertain to this study.

5.1 Reliability

Reliable measures are those that are consistent i.e. they are stable from one administration to the next. (Dillon et al, 1990 p 369)

The literature reveals that there are a number of alternative approaches for assessing reliability. For example - Test Retest Reliability methods, Split-Halves, Cronbach's Alpha, Item to total correlations etc. Each of these tests however have certain limitations. (Bohrnstedt, 1970 p 85; Nunnally, 1978)

The reliability of psychographic measures selected for this study has been assessed by the author by examining the results of:

1) Factor Analysis; 2) Discriminant Analysis.

1) Factor Analysis was conducted on three sets of items pertaining to (1) category beliefs (2) value orientations and (3) role perceptions.

The results of the factor analysis detailed in Chapter 8, part I and Appendix C provided some evidence of the internal consistency and reliability of the measures selected. The factor scores to an extent also validated the author's hypothesized underlying constructs for each of these measures.

BMDP Factor Analysis also provides a measure of internal consistency termed Carmines Theta. Carmines Theta is a special case of Cronbach's Alpha. It is a measure of internal consistency ranging from 0 to 1,0 (Carmines et al, 1979). The measure obtained for Carmines Theta for each of the factor analyses provided further evidences of the reliability of the psychographic measurement instrument developed by the author specifically for this study.

2) Discriminant Analysis

The market segments for this study were based on respondents volume of use of fresh mushrooms. The author performed discriminant analysis and fourteen variables were found to be significant in distinguishing between the two segments, heavy users and light users. Based on these fourteen variables, 73% of heavy users and 70% of light users would be correctly classified back into their respective market segments. This conclusion was based on the Jackknife Classification Matrix (Refer Section 3). The issue of the reliability of the market segments has therefore also been addressed through the discriminant analysis procedure.

5.2 Validity

Validity refers to the extent to which differences in the observed scale scores reflect true differences in the characteristic or construct being measured. Simply put -validity refers to whether the psychographic instrument measures accurately what it was intended to measure. Taking into account the criticisms raised in Chapter 6, the author adopted the following approach in order to select valid measures for the psychographic instrument.

Based on an extensive literature review, a conceptual and operational definition of psychographics was adopted for this thesis. Based on this the author developed a hypothetical model to guide the selection of psychographic measures to include in the study (Refer Chapter 4, fig 4.1).

The author also placed much emphasis on the exploratory phase in order to ensure the comprehensive generation and selection of valid psychographic measures (Refer Chapter 7, part II).

The selection of psychographic measures for this study was therefore not haphazard but rather followed a specific procedure guided by the definition and hypothetical model. All statements finally included were hypothesized by the author to be relevant to the problem under study.

SUMMARY

In Chapter 8, part II, the author segmented the fresh mushroom market on the basis of volume of use. Two market segments almost of equal size were identified: A group of heavy users and a group of light users of fresh mushrooms.

The author established that there were five significant non psychographic variables that distinguished between these two groups. These five variables accounted for 49% of the explained variance in the behaviour of the two groups with respect to their consumption of fresh mushrooms. Of the five significant variables two were demographic measures and three were behavioural measures.

The addition of the psychographic variables to the analysis increased explained variance to 74%. Specifically nine psychographic variables were found to be significant in distinguishing between heavy users and light users of fresh mushrooms.

The profiles of the two user groups were compared, first only on their distinguishing non psychographic characteristics and then on all the significant variables including the psychographic measures.

In the final Chapter of this thesis, the author will draw conclusions based on the findings of the research.

CHAPTER NINE

CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION

The final chapter addresses the conclusions and recommendations drawn by the author based on the findings of the empirical research.

In Section 1 the author presents a summary of the findings. The results of the main and sub-hypotheses tested are reported in section 2. In section 3, the author evaluates the effectiveness of the segmentation study on the three criteria identified in Chapter 3 of the literature review. Based on the findings of the empirical research, the author draws conclusions and recommendations for the inclusion of psychographic variables in a segmentation study in section 4. In section 5, strategic implications for Tongaat Mushrooms, arising from the segmentation analysis are detailed. Finally, in section 6, directions for future research are proposed.

1. Summary of the Findings

A summary of the results of the data analysis are presented in Tables 9.1 - 9.4

Table 9.1 Summary of Significant Variables that Distinguished between Heavy Users and Light Users of fresh mushrooms.

Step No.	F. to Enter	Variable Name	Classification	Measure
1	57,056	List	Psychographic	Buying Style
2	35.125	Luxury	Psychographic	Category Relief
3	11,249	Everyday	Psychographic	Category Relief
4	9,689	Serveg	Behavioural	Usage Situation
5	8,528	Occasion	Psychographic	Category Belief
6	7,004	Hmarco	Demographic	Stage in F.L.C.
7	6,548	Hmarc	Demographic	Stage in F.L.C.
8	6,777	Budget	Psychographic	Value Orientation
9	5,443	Ill	Psychographic	Category Belief
10	5,538	Fibre	Psychographic	Category Belief
11	5,244	Ofts	Behavioural	Brand Usage
12	4,971	Simple	Psychographic	Role Perception
13	4,945	Pursup	Behavioural	Purchase Location
14	4,183	Benease	Psychographic	Benefit

Table 9.2 Results of Phase I - Discriminant Analysis
Summary of Significant Non-Psychographic Variables

Classification	Type of Measure	Variable Name(s)	No.of Variables
Demographic	Stage in F.L.C.	Hmarco/Hmarc	2
Behavioural	Usage Situation	Serveg	1-
	Brand Usage	Ofts	1-
	Purchase Location	Pursup	1-
TOTAL			5

Table 9.3 Results of Phase II of the Discriminant Analysis
Summary of Significant Psychographic Variables

<u>Types of Psychographic Measures</u>	<u>Degree of Specificity</u>	<u>Variable Names(s)</u>	<u>Number of Variables</u>
1. Value Orientation	G	Budget	1
2. Role Perception	G	Simple	1
3. Benefit	P	Benease	1
4. Category Belief	P	Luxury, Everyday, Ill, Fibre, Occasion	5
5. Product Attributes/Brand Preference	P	-	0
6. Buying Style	P	List	1

Degree of specificity pertains to whether the measure is General (G) or Product Specific (P)

Table 9.4 Summary Classification* of Heavy Users and Light Users of Mushrooms

	Percentage of Users Correctly Classified		% Increase/ Decrease in Explained Variance
	Non Psychographic	Psychographic and Non Psychographic Variables	
Heavy Users	46,0%	73,0%	58,7%
Light Users	52,5%	76,2%	45,1%
TOTAL	49,3%	74.6%	51.3%

* Jackknife

2. Results of the Research

In Chapter 7, Part I, the author outlined the main and sub-hypotheses to be tested in this thesis. Based on the findings of the empirical research, the author will report in this section of the acceptance or rejection of the hypotheses.

2.1 Main Hypothesis

The main hypothesis to be tested in this thesis was as follows:

Psychographic measures will yield significant descriptor variables in the profiling stage of a market segmentation study that are **useful** for identifying and describing heavy users versus light users of fresh mushrooms.

The literature revealed that undertaking a market segmentation analysis required 2 separate steps to be implemented (Refer Chapter 2 and 3). In the first step the fresh mushroom market was segmented on the basis of volume of use into a group of heavy users and a group of light users.

In the second step, the two user groups were profiled on their distinguishing characteristics. In order to assess the contribution of the psychographic measures as "descriptor variables" the author employed discriminant analysis in two phases. In phase I only, non-psychographic variables were included. Results revealed that 5 variables (3 demographic and 2 behavioural) were significant in distinguishing

heavy users from light users. In phase II (refer Table 9.2), both psychographic and non-psychographic variables were included. Results revealed a further 9 psychographic variables were significant in distinguishing heavy users from light users (Refer Table 9.1 - 9.3).

A comparison of the two stages of empirical research reveals that the psychographic measures contributed significantly to the identification and classification of both heavy users and light users of fresh mushrooms as follows:

- Tables 9.1 - 9.3 reveal that there are 14 variables in TOTAL that are significant in distinguishing between heavy users and light users of mushrooms. Of the 14 variables, 9 (64%) are psychographic and 5 (36%) non-psychographic. Table 9.1 also reveals that the 3 most significant variables (based on their F to enter values) are all psychographic variables.
- The inclusion of the psychographic variables increased the percentage correctly identified heavy users from 46% to 73% and that of light users from 52,5% to 76,2% (refer Table 9.4). The TOTAL percentage correctly classified respondents rose to 75% (refer Table 9.4).
- The 5 non-psychographic variables were only able to distinguish between the heavy users and light users in terms of stage in family life cycle, most preferred product usage application, most preferred product usage occasion and usual purchase location.

The 9 psychographic variables were, in addition, able to distinguish between the heavy users and light users as follows:

- * 5 Different beliefs with respect to the product category of fresh mushrooms were identified between light users and heavy users. These different perceptions related to risk, price/value, usage applications and usage occasions

- * Light users differed from heavy users on the primary benefit sought from fresh mushrooms. Specifically, convenience and ease of use was the primary benefit sought by light users
- * Heavy users had a different 'buying style' for fresh mushrooms - specifically it was usually a planned purchase and therefore included on the shopping list.
- * Light users differed from heavy users in terms of two general orientations towards home cooking. Specifically, they placed greater emphasis on budgeting and were more 'simple' in their approach to recipe selection.

These results confirm that the psychographic variables provided useful information for describing the two market segments on their distinguishing characteristics.

Based on the empirical findings of the research, the author recommends that the main hypothesis of this thesis be supported as the psychographic variables contributed both to the identification and therefore classification of heavy users and light users of mushrooms and to the description of the resultant market segments.

2.2 Sub-Hypotheses

The author attempted to test 7 sub-hypotheses in this study.

H₁ Psychographic variables in conjunction with geographic, demographic and behavioural variables will result in better prediction and description of users of fresh mushrooms than geographic, demographic and behavioural variables alone.

The results presented in Table 9.4 reveal that the addition of the psychographic variables to the segmentation analysis increased the total percentage correctly

classified respondents by 51.3% to equal 74.6%.

Specifically the percentage correctly classified heavy users when based on non-psychographic measures only was equal to 46%. This result improved to 73% on the inclusion of the psychographic measures. The percentage correctly classified light users when based on non-psychographic measures only was equal to 54.5%. This figure rose to 76.2% on the inclusion of the psychographic variables. The psychographic variables in addition yielded 9 additional measures to the demographic and behavioural measures that were useful in the profiling of the two segments. Based on these findings, the author recommends that H_1 be accepted.

H_{ii} The majority of variation in the volume of consumption of fresh mushrooms is unaccounted for by the inclusion of geographic, demographic and behavioural variables only in the segmentation study.

Table 9.4 reveals that the five significant demographic and behavioural variables were able to classify 46% of heavy users and 52,5% of light users correctly. Overall the non-psychographic variables only accounted for 49,3% of the explained variance in behaviour with respect to volume of consumption of fresh mushrooms.

The author therefore concludes that hypothesis (ii) may be supported because the demographic, geographic and behavioural variables accounted for less than 50% of the explained variance in behaviour of consumers with respect to their volume of consumption of fresh mushrooms.

H_{iii} Psychographic variables do account for differences in volume of consumption of fresh mushrooms not accounted for by demographic, geographic and behavioural variables.

The addition of the psychographic variables to the discriminant analysis revealed that 9 psychographic variables were significant in distinguishing between heavy

users and light users of fresh mushrooms. (Refer Table 9.1).

The results in Table 9.4 indicates that with the inclusion of the psychographic variables the TOTAL percentage of heavy users correctly classified rose by 58,7% and that of light users by 45,1%. This indicates that the 9 significant psychographic variables did account for differences in consumption behaviour with respect to fresh mushrooms that could not be accounted for by the demographic and behavioural variables. Specifically, the psychographic variables increased the TOTAL percentage of correctly classified heavy users and light users of fresh mushrooms by 51,3%

The author therefore concludes that hypothesis (iii) may be supported as the psychographic variables did account for differences in behaviour with respect to the volume of consumption of fresh mushrooms not accounted for by demographic, geographic and behavioural variables.

H_{iv} The addition of the psychographic variables to the analysis will increase the TOTAL explained variance significantly.

Table 9.4 reveals that, based on the addition of the psychographic variables to the discriminant analysis, the percentage of heavy users correctly classified = 73% and that of light users = 76,2%. The total percentage of respondents correctly classified was equal to 74,6% . This indicated that together the significant psychographic, demographic and behavioural variables accounted for 75% of the explained variance in behaviour between heavy users and light users with respect to fresh mushrooms and therefore only 25% remained unexplained.

The author therefore concludes that H_{iv} may be supported as the addition of the psychographic variables to the segmentation study increased the total explained variance to 75%.

H_v Both general and product specific measures will yield variables that are significant in distinguishing heavy users of mushrooms from light users.

Table 9.2 reveals 9 psychographic variables that were significant in distinguishing between heavy users and light users of fresh mushrooms.

Furthermore, of the 9 significant variables, 7 were product specific: category beliefs (5), benefits (1) and buying styles (1). The remaining 2 were general measures, one each referred to value orientations and role perceptions as related to home cooking.

Based on these findings, the author concludes that hypothesis (v) may be supported as both general and product specific psychographic measures were found to be significant in distinguishing between heavy users and light users of fresh mushrooms.

H_v Those measures that are product specific will provide the significant variables that are most useful in distinguishing heavy users from light users of mushrooms.

Table 9.1 reveals that the 3 most significant variables that distinguish between heavy users and light users were all product specific psychographic measures.

Specifically, the 2 general measures were entered at Step 8 (value orientations, F to enter = 6,777) and at step 12 (role perceptions, F to enter = 4,971). The product specific measures were entered at steps 1,2,3,5,9,10,14.

Based on the finding for this study, the author concludes that hypothesis (v) may be supported both because of the number of product specific psychographic variables and their statistical significance.

H_{vii} Of the total number of psychographic statements employed in the study, more than 10% will prove to be significant in distinguishing between heavy users and light users of mushrooms.

A total of 123 psychographic variables were included in phase II of the discriminant analysis. Table 9.3 reveals that in total, only 9 psychographic variables were found to be significant in distinguishing heavy users from light users of fresh mushrooms. This equates to only 7.3% of the TOTAL number of psychographic variables employed in the analysis.

Based on this finding the author concludes that hypothesis (vii) should be rejected since less than 10% of the TOTAL number of psychographic variables included in the study were found to be significant.

3. An Evaluation of the Effectiveness of the Market Segmentation Study

In Chapter Three, Section 2, the requirements for an effective segmentation study were detailed. The literature revealed that a successful segmentation scheme would result in customer groupings that:

- 1) Would behave differently from one another
- 2) Could be identified
- 3) Would be responsive to an efficient marketing mix aimed at them
- 4) Would be of substantial size

1) Behavioural Differences

The author detailed in Chapter 3, Section 4.3.2 that by definition the segmenting of the market into heavy and light users results in between segment differences in average household purchasing rates. It was concluded therefore that segmenting a market on the basis of volume of use guarantees the "behavioural criterion" for a market segment is met.

Supporting the above argument, the literature revealed that the opportunity for segmentation exists when buyers needs and wants are different. The fresh mushroom market has been segmented into heavy users and light users based on their different 'demand levels' for the volume of the product consumed. It is this variability in demand across the consumers in the fresh mushroom market that has therefore created the segments and in so doing satisfied criteria (1).

2) Identification of Segments

The objective of profiling market segments is to identify descriptive characteristics that are highly correlated to the basis variable. The technique of discriminant analysis ensures that this requirement is satisfied.

The results of the discriminant analysis employed by the author revealed that 14 variables were significant in identifying and distinguishing between

heavy users and light users of fresh mushrooms. (Refer Table 9.1). These 14 variables were able to correctly classify 73% of heavy users and 76% of light users. (Refer Table 9.4).

The 14 significant variables enabled the author to describe the segments on their distinguishing demographic profiles (specifically stages in family life cycle), behavioural patterns (with respect to usage applications and purchase locations), category beliefs, benefits sought, buying-habits (with respect to fresh mushrooms) and general home cooking values and role perceptions.

The author therefore concludes that the heavy users and light users were able to be identified and described by 14 significant descriptor variables and that criterion two was therefore satisfied.

3) Response Differences

The author stated in Chapter 3, section 2 that the presence of "real" market segments requires consumers in the segments to exhibit actual response differences to a marketing mix that is specifically tailored to their needs.

In order to satisfy this criterion for this study, light users must respond differently to heavy users of fresh mushrooms with respect to a specific marketing mix that is aimed at them.

The author acknowledges that to satisfy this criterion, testing for response elasticities to the various marketing mix strategies would be a necessity. This is however beyond the scope of this study.

In the author's opinion, however, the 14 distinguishing characteristics between heavy users and light users of mushrooms provides a good indication that these market segments would react differently to different elements of the marketing mix.

For example, the majority of light users are far more budget/cost conscious when selecting and preparing food and the majority perceive mushrooms to be a luxury and not a planned purchase (refer Chapter 8, part II). It is the author's opinion that these consumers would more likely respond to price based in-store promotions, encouraging impulse purchasing when the product is perceived to be on 'special'. Such a strategy may well increase the volume of mushrooms purchased by light users. In the author's opinion it is unlikely that heavy users will significantly increase their purchases as they already perceive mushrooms to be a planned regular purchase. A strategy aimed at increasing usage amongst heavy users might rather focus on the 'healthy' aspect of fresh mushrooms (primary benefit sought). This is unlikely to stimulate consumption amongst light users as they seek different primary benefits and are motivated by different factors in making the product choice.

The author therefore concludes that based on the 2 groups distinguishing characteristics it is likely that they would respond differently to different marketing strategy's aimed at each segment. The author, however, acknowledges that this is not proven.

- 4) The author selected a representative sample of current mushroom users (Refer Chapter 7 Part II). Based on this sample, 50% of current users were identified as light users and 50% as heavy users of fresh mushrooms. Based on this finding, the author concludes that each of these segments could be of sufficient size to be a potential target market and therefore that the forth criterion is satisfied.

In summary, three of the four criterion for an effective segmentation scheme have been satisfied by this study. In addition, there is evidence to suggest that the 3rd criterion would also be satisfied. In assessing criteria 2 and 3, it is the authors opinion that the psychographic variables have contributed significantly to the identification, description and likely response behaviour of the different segments.

4. Conclusions and Recommendations

4.1 Conclusions and Recommendations on the Inclusion of Psychographic Variables in a Segmentation Study.

The literature review (Chapters 4-6) revealed that there was a lack of consensus to the potential usefulness of including psychographic measures in a segmentation study.

Furthermore, the author highlighted that there were divided opinions on the role that psychographic measures could or should play in the segmentation process. Supporters of psychographic research argued for the inclusion of psychographic measures as basis and/or descriptor variables. Other schools of thought, though still supporting the inclusion of psychographic measures, preferred to confine the role of the psychographic measures to a descriptive one only.

The detractors of psychographic research claimed that psychographic measures were of little or no use in a segmentation study. These researchers argued that psychographic measures were too expensive, a waste of time, usually unrelated to the problem at hand and often produced results that were misleading or redundant.

In this thesis the author has attempted to assess the contribution of psychographic measures to a segmentation study. The author has however only assessed their contribution as potential descriptor variables in the profiling of market segments.

In the empirical research phase a segmentation analysis of the fresh mushroom market was implemented. The market was divided on the basis of volume of use into two segments - a group of heavy users and a group of light users of fresh mushrooms. The contribution of the psychographic variables to identifying and profiling the two resultant segments was then assessed.

The findings of the empirical research revealed that the psychographic measures yielded 9 significant descriptor variables. Specifically these 9 variables were significant in identifying and distinguishing between heavy users and light users of fresh mushrooms. Furthermore the 9 significant psychographic variables provided useful information for profiling the two market segments.

The author does however acknowledge that, of the large number of psychographic measures that were employed in this study, only very few proved to be significant (less than 10%). Marketers may argue on these grounds that psychographic measures are too expensive, a waste of time and do not warrant inclusion in a segmentation study. The author however has shown through the empirical research that, by the inclusion of psychographic measures in a segmentation analysis, the outcome has been enhanced. Specifically the psychographic variables increased the explained variance in behaviour between the segments and yielded variables that were significant in profiling the segment on their distinguishing characteristics.

The author therefore concludes that, by the inclusion of psychographic variables in the segmentation analysis, segment identifiability (where the segments were based on volume of use) has been enhanced. The psychographic variables have as a result contributed significantly to improving the effectiveness of the segmentation study of the fresh mushroom market.

The author therefore recommends that segmentation studies should at least include psychographic measures (hypothesized to be relevant to the product under investigation) as potential descriptor variables.¹

¹ The author acknowledges that this recommendation is based on the findings of one study only. The author therefore recommends that further segmentation studies employing psychographic measures in other industries should be undertaken to validate this conclusion.

4.2 Conclusions on the Contribution of Psychographic Measures to the Development of a Marketing Strategy for Tongaat Mushrooms

In Chapter 3 Section 7 the author stated that descriptor variables, through identifying and describing the target segments, should facilitate the development and implementation of a marketing strategy aimed at allocating marketing resources to take advantage of the segments uncovered in the first step of the segmentation analysis.

In the authors opinion, the information provided by the psychographic variables has enabled Tongaat Mushrooms to have a greater understanding of their core customers in their existing target markets. Furthermore, the psychographic variables have identified significant differences in the psychological processes of heavy users and light users with respect to fresh mushrooms. In Chapter 5 (Section 2) Plummer was quoted as follows:

' The more you understand about your customers, the more effectively you can target them' (Plummer, 1974).

The author concludes on the evidence of this study that the psychographic variables have provided a greater understanding of consumers in the two market segments and in her opinion, therefore, the psychographic information does provide Tongaat Mushrooms the opportunity to communicate more effectively and efficiently with each segment.

Supporting this conclusion, it is the authors opinion that the psychographic variables, by providing greater insight into the two segments motivational processes with respect to the purchase and use of fresh mushrooms, facilitate the development and implementation of a marketing strategy to increase the consumption of fresh mushrooms amongst existing users.

The distinguishing characteristics of heavy users versus light users of fresh mushrooms identified through the psychographic variables provide evidence that

could facilitate the development of a positioning strategy (for example, primary benefit sought) and execution of the marketing mix to convey the positioning desired. (eg. pricing strategy, promotion strategy and creative execution)

In summary, the information provided by the psychographic variables has offered Tongaat Mushrooms the opportunity to more clearly understand and serve customer expectations within its current customer base. Furthermore, the significant distinguishing psychographic variables provide information that may help Tongaat Mushrooms to develop a marketing strategy and allocate resources more effectively and efficiently to take advantage of the two user groups identified in the segmentation process.

The author acknowledges however that these conclusions are her opinion and can only be tested and truly evaluated on development and implementation of a marketing strategy for Tongaat Mushrooms.

4.3 Conclusions and Recommendations on a Conceptual and Operational Definition of Psychographics

In Chapter 4, the literature revealed that there were conflicting opinions as to the definition and operationalization of psychographics for a segmentation study.

The author in this thesis defined psychographics to include all psychological measures hypothesized to be relevant to the product under study.

Chapter 5 further revealed that psychographic research had been sharply criticized for the haphazard approach to the selection of measures and variables to include in a segmentation study:

- 1) By attempting to analyze "everything with everything", psychographic market segmentation practice is merely an exploratory first stage of the research process (Hustad and Pessemier, 1974, Wind and Green, 1974).
- 2) Because of the limited theoretical development, psychographics research ignores the hierarchy of effects learning behaviour consumers go through

in making decisions (Wind, 1978).

- 3) Since adequate psychographic theory has not been developed, the selection of segmentation descriptors and scales is too often a "fishing expedition" (Hustad and Pessemier, 1974; Wind and Green, 1974).

In order to address these criticisms, the author developed a hypothetical model to guide the selection of psychographic measures to include in this thesis (refer Chapter 4, Figure 4.3).

Based on this model, six psychographic measures were included in the study, all of which were hypothesized to be relevant and therefore impact on the purchase of fresh mushrooms. Four of the six measures were product specific and two were more general relating to the activities surrounding food selection and preparation (refer Figure 4.1).

Based on this approach, the psychographic variables were found to play a significant role in the segmentation process. Furthermore, 5 of the 6 measures yielded variables that were significant in distinguishing between heavy users and light users of fresh mushrooms and both the general and product specific measures yielded significant variables.

Based on these findings, it is the authors opinion that psychographics should be defined in a broad sense as it was first intended when the term was introduced to the marketing literature but that the measures should be restricted to those relevant to the product under study. Furthermore, it is the authors opinion that psychographic variables have contributed significantly to this segmentation study because of the definition adopted and because of the approach to the operationalization of the psychographic measures. The selection of measures was guided by a model that attempted to identify the hierarchy of effects on consumer's purchase behaviour with respect to fresh mushrooms.

The author therefore concludes that psychographic measures, if confined

judgementally to those expected to be most relevant to a particular product category, and if their selection is guided by a model that addresses the motivational processes related to the product under study, much more insight is likely to be gained regarding the particular behaviour under study. The author, however, acknowledges that this conclusion is based only on the findings of a single study and therefore recommends that in the future further studies be undertaken that could validate this approach. If these studies support the findings of this thesis, then perhaps a conceptual and operational definition could then be recommended for universal application.

4.4 Conclusions and Recommendations on the Relationship of Psychographics with Non Psychographic Variables (Demographic, Geographic and Behavioural Measures).

The literature review revealed that pure demographics has been criticized for its lack of richness in describing target consumers (Chapter 5, Section 2). Demographics were said to lack dimension and therefore needed to be supplemented by other measures.

The 'non-psychographic' profile of heavy users and light users of fresh mushrooms, in this study, provided some useful information. In the authors opinion, however, it lacked richness and, in fact, raised many other questions.

In addition, the distinguishing non-psychographic variables only correctly identified 46% of heavy users and 52% of light users of fresh mushrooms. The addition of the psychographic variables increased the number of correctly classified respondents to 75%. A number of past studies have evaluated the contribution of psychographic variables versus demographic variables. The majority of these studies all persuasively argue that psychographic variables do provide additional information that is not provided by the demographic variables alone (Tigert et al, 1971 p 81-905; Webb et al, 1971 p 27-35; Nelson, 1969; Heller, 1970 p 45-57; Burnett, 1981 p 62-67).

In the authors opinion this study provides further evidence that support the above published findings.

The author therefore concludes that the psychographic variables provided additional information that was not provided by the demographic, geographic and behavioural measures and that this information was not redundant with that provided by the non psychographic variables.

Furthermore, the author concludes that the psychographic variables provided information that both identified and richly described the target segments that could not otherwise have been provided by the demographic, geographic and behavioural variables.²

4.5 Conclusions and Recommendations on the use of Psychographics with respect to Product Types

Chapter 5 revealed that a number of critics believed that psychographic measures were only applicable to use for certain types of products (Chapter 5, Section 6).

Products described as follows were thought to be inappropriate for psychographic research:

- * Commodities
- * Products purchased on the basis of price
- * Products always purchased by experts
- * Low involvement products
- * Products purchased on specification

In the authors opinion, the purchase of mushrooms typifies a relatively low involvement decision process. Mushrooms do not offer much psychological gratification, do not have symbolic value for consumers and the price per pack is

² The author wishes to note that the interaction affects between the non-psychographic and psychographic variables are within each of these groups of variables was not tested for in this study. The conclusions drawn must therefore be viewed with caution.

relatively low (+- R3.00).

The findings of the study have, however, shown that the psychographic variables have contributed significantly to the segmentation study. In the author's opinion the psychographic variables are therefore of use even when the product under investigation could be classified as low involvement.

In addition, the discriminant analysis revealed that 7 of the 9 significant psychographic variables (78%) were product specific, while only 2 were general measures. This finding supports that of Haley (1984) (Chapter 6, Section 6) who concluded that the product specific measures were of greater use when the product category was classified as low involvement.

The author therefore concludes that the psychographic measures were of use for a low involvement product segmentation study and furthermore that the product specific measures yielded the more significant variables.

The author does, however, acknowledge that these conclusions are based on:

- 1) Her assumption that fresh mushrooms are a low involvement product category
- 2) Only the findings of this single study.

It would be necessary to validate these conclusions by testing the contribution of the psychographic variables in other segmentation studies for low involvement products.

5. Implications for Tongaat Mushrooms

The concept of market segmentation is based on the premise that consumers are different and that those differences are related to market demand.

The volume based market segmentation study implemented for Tongaat Mushrooms has highlighted that the light users of fresh mushrooms do differ significantly from the heavy users of fresh mushrooms both demographically, behaviourally and psychographically (refer Chapter 8 Part II Section 4). These differences, therefore, represent an opportunity for Tongaat Mushrooms to capitalize on.

Tongaat Mushrooms' marketing objective is to target the light users of fresh mushrooms with a marketing strategy aimed at increasing their consumption of the product. In order to achieve this objective, they wish to evaluate the appropriateness of the current marketing strategy against the findings of the empirical study and make changes where necessary. Tongaat Mushrooms will have to tailor their current marketing strategy to take advantage of the differences that were highlighted between heavy users and light users of fresh mushrooms in the segmentation study.

The distinguishing characteristics of light users of fresh mushrooms were detailed in Chapter 8, Part II, Section 4. In the author's opinion, these findings have the following implications for Tongaat Mushrooms and should be taken into account in developing a strategy aimed at light users to increase their consumption of fresh mushrooms:³

³ The author wishes to note that firstly any suggestions made need to be further tested, and secondly Tongaat Mushrooms should interpret the results of the segmentation study together with that of the findings presented in Chapter 8 Part I which referred to the overall profile of current mushrooms users.

5.1 General Orientations Towards Home Cooking

Light users are more budget and cost conscious in selecting and preparing food. This impacts on their behaviour with respect to selection of new recipes. They confine their selection of new recipes to the more simple which does not require specific new ingredients to be bought.

Tongaat mushrooms currently feature more exotic recipes and expensive applications in their advertising campaign (Refer Appendix A).

This creative strategy will need to be re-evaluated if the campaign is to be targeted to light users.

5.2 Luxury Perception

A majority of light users perceive mushrooms to be a luxury and approximately 20% of light users would reserve their use for special occasions only. It is the authors opinion that these perceptions are "strengthened" by the current recession, but it is also the author's opinion that the current advertising strategy adopted by Tongaat Mushrooms reinforces these perceptions. (Refer Appendix A).

As is the case with Section 5.1 above, the current advertising strategy will have to be evaluated in order to address these issues. In the author's opinion, there exists an opportunity for Tongaat Mushrooms to develop an advertising campaign that focuses on mushrooms extending more 'ordinary' value for money meals (Eg Pasta) but at the same time, by the addition of mushrooms, making the 'more ordinary meal' something a little 'extra special'.

The perception of luxury also has implications for Tongaat Mushroom's current pricing strategy. Opportunities exist to make greater use of in-store short term promotional pricing strategies to stimulate purchase and help overcome the perception of luxury associated with the product class.

5.3 Product Category Perception

79% of light users do not perceive mushrooms to be an ordinary everyday vegetable. 20% of light users, in addition, perceive the primary benefit of using

mushrooms as adding 'something extra' to a recipe.

This "special" perception that mushrooms occupies in the minds of light users could perhaps present an opportunity to Tongaat Mushrooms. Any new creative strategy that is developed obviously needs to take into account light users perceptions, value orientations and role perceptions already noted, but at the same time, Tongaat Mushrooms should be careful not to "down grade" the image of mushrooms to that of an ordinary vegetable. The author noted in Chapter 6, that in interpreting psychographic research, the user must recognize the difference between products that compliment lifestyles and those that supplement lifestyles. This has specific bearing on the finding relating to category perception and should be taken into account when developing any creative strategy. A possible strategy to address this issue is that proposed by the author in 5.2.

5.4 Risk Perception

Light users perceive a greater degree of risk in the use and consumption of fresh mushrooms. Tongaat will need to address this issue in their marketing mix.

5.5 Benefits Sought

24% of light users rate 'ease of use and convenience' as the primary benefit of cooking with fresh mushrooms. This was followed by 22% and 20% of light users who respectively rate 'taste' and 'something extra special' as important.

The current positioning strategy of Denny mushrooms focuses on versatility which was not perceived as an important benefit by either light users or heavy users of fresh mushrooms. This may need to be readdressed in the light of the findings of the segmentation study. Positioning decisions should, however, also take into account the findings detailed in Chapter 8 Part I. Specifically the importance of freshness as the single most important attribute in influencing purchase for both heavy users and light users should not be ignored.

Almost all light users frequent supermarkets for their purchase of fresh mushrooms. Tongaat mushrooms should focus their activities on these retail outlets in targeting light users.

5.7 Brand Strategy

70% of light users currently were loyal to the Denny brand. A significantly higher proportion of light users than heavy users, however, preferred Silverstream.

This finding in the authors opinion, should be further investigated by Tongaat Mushrooms. There could be an opportunity for Tongaat Mushrooms to 'build' their second brand Silverstream to appeal specifically to light users. The brand could be positioned directly to meet the needs of light users and elements of the marketing mix could be tailored to the findings of this study.

6. Directions for Future Research

6.1 A Universally accepted Conceptual and Operational Definition of Psychographics

The literature revealed that the persistent confusion and lack of operational precision of psychographics has not only hampered past research but has also undermined its usefulness as a segmentation variable. (Chapter 4, Section 7).

What is required in the future is an appropriate definition that is universally accepted and commonly applied by the marketing community.

Research therefore needs to be undertaken in the future to establish the empirical relationships among the alternate definitions. Alternate operational definitions (including the definition employed in this study) need to be tested to find one that is most useful for the marketing community.

6.2 Standardization of Procedure

Product specific psychographic segmentation studies have been criticized for being too time consuming and too expensive to really be justified. The findings of this study highlighted that less than 10% of all the psychographic measures employed proved to be of significance. Furthermore, since each study includes variables specific to the product category, it is very difficult to validate and cross check the results.

General psychographic segmentation studies have, however, also been sharply criticized for failing to produce meaningful results that have any bearing on the product under study.

In the authors opinion what is required is a "blending of the two approaches". There is a need to move towards some degree of standardization in the future, otherwise each product specific psychographic study tends to be a very 'ad hoc' and isolated exercise that has to be repeated each time a new problem arises.

Psychographic studies could be, for example, standardized for an industry such as the food industry. In this case the general measures (relating to food preparation

and selection) could be standardized for all food products and only the product specific measures would have to be tailored to each product under investigation. This would enable market researchers to capitalize on some of the advantages of the more general approach.

In addition marketers today are faced with consumers whose lifestyles appear to be continuously changing. Through adopting a more standardized approach (specific to an industry) it enables marketers to track general psychographic information. It should therefore be possible to determine just what needs, values etc are changing amongst which population segments and how fast.

It is the authors opinion that such an approach should be tested in the future because it affords important benefits to the marketing community. Psychographic research could perhaps evolve to the stage where some type of hierarchy could be developed which could enable marketers to predict specific measures based on the respondents more general measures?

6.3 Relationship of Psychographics with Demographics

A number of past studies have focused on evaluating the contribution of psychographics VERSUS demographics.

There is little evidence, however, of research that measures the overlap between the psychographic and demographic variables. From the literature it appears that the full nature and extent of the potential redundancy between psychographic and demographic measures is not well understood.

The question that needs to be addressed in the future is, does one need to include both psychographic and demographic variables in a study? Additional research efforts should therefore be devoted to determining the extent to which psychographic variables are proxy measures for demographics.

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